### District I 1625 N French Dr., Hobbs, NM 88240 District II 1301 W. Grand Ave., Artesia, NM 88210 District III

1000 Rio Brazos Rd., Aztec, NM 87410

## State of New Mexico Energy Minerals and Natural Resources

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

Form C-144 July 21, 2008

For temporary pits, closed-loop sytems, 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

District IV

1220 S St Francis Dr , Santa Fe, NM 87505	appropriate NMOCD District Office
1840	Pit, Closed-Loop System, Below-Grade Tank, or
Pro	posed 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
	l 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 i	elieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances
Operator: Burlington Resources C	Dil & Gas Company, LP OGRID#: 14538
Address: PO Box 4289, Farming	
Facility or well name: Huerfanito	Unit 98S
API Number:	<b>30-045-34572</b> OCD Permit Number.
U/L or Qtr/Qtr: A(NENE) Sec	tion: 35 Township: 27N Range: 9W County: San Juan
Center of Proposed Design: Latitud	e: <b>36.535718' N</b> Longitude: <b>107.751550' W</b> NAD: 1927 X 1983
Surface Owner: X Federal	State Private Tribal Trust or Indian Allotment
2	
X Pit: Subsection F or G of 19.15.	17.11 NMAC,
	orkover
	Cavitation   P&A  Liner type: Thickness 20 mil   X   LLDPE   HDPE   PVC   Other
X String-Reinforced	Line type. Thickness 20 hill A LLDFE   HDFE   FVC   Other
	Factory Other Volume. 4400 bbl Dimensions L 65' x W 45' x D 10'
Zanor detained [A]	Volume. 4400 of Simensions E 63 X V 43 X D To
Closed-loop System: Subse	ction 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)  ound Steel Tanks Haul-off Bins Other
_ <u>_</u>	ner type: Thicknessmil LLDPE HDPE PVD Other
Emer Scams	
Below-grade tank: Subsectio	Factory Other  In 1 of 19.15.17.11 NMAC  In 2 of 1 of 19.15.17.11 NMAC  In 2 of 1 of 19.15.17.11 NMAC  In 2 of 1 of 19.15.17.11 NMAC  In 3 of 19.15.17.11 NMAC  In 2 of 19.15.17.11 NMAC  In 3 of 19.15.17.11 NMAC  In 2 of 19.15.17.11 NMAC  In 3 of 19.15.17.11 NMAC  In 3 of 19.15.17.11 NMAC  In 4 of 19.15.17.11 NMAC  In 5 of 19.15.17.11 NMAC  In 5 of 19.15.17.11 NMAC  In 6 of 19.15.17.11 NMAC  In 6 of 19.15.17.11 NMAC  In 6 of 19.15.17.11 NMAC  In 7 of 19.15.17.11 NMAC  In 7 of 19.15.17.11 NMAC  In 8 of 19.15.
Volume:	n 1 of 19.15.17.11 NMAC  bbl Type of fluid:
Tank Construction material:	The state of the s
Secondary containment with leak	detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
Visible sidewalls and liner	Visible sidewalls only Other
Liner Type: Thickness	mil HDPE PVC Other
5	
Alternative Method:	
Submittal of an exception request is re	equired 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 pit, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  X Alternate. Please specify 4' hogwire fence with a single strand of barbed wire on top.  Netting: Subsection E of 19.15.17 11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)						
8  Signs: Subsection C of 19 15.17.11 NMAC  12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed in compliance with 19.15.3.103 NMAC						
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 consultation of approval.	ideration of ap	proval.				
Siting Criteria (regarding permitting): 19.15.17.10 NMAC  Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau Office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above grade-tanks associated with a closed-loop system.						
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes	XNo				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	Yes	X No				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	XNo				
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	│ ∐ <sup>NA</sup>					
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applied to permanent pits)  - Visual inspection (certification) of the proposed site, Aerial photo; Satellite image	Yes XNA	No				
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	XNo				
- 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 adopted pursuant to NMSA 1978, Section 3-27-3, as amended	Yes	XNo				
<ul> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> <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	XNo				
Within the area overlying a subsurface mine Written confirmation 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	Yes	XNo				
Society, Topographic map  Within a 100-year floodplain  - FEMA map	Yes	XNo				

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							
X Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19 15.17 9							
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC							
X Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC							
X Operating and Maintenance Plan - based upon the appropriate requirements of 19 15.17 12 NMAC							
X 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							
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							
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 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)							
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 Oil Conservation Division Page 3 of 5

16 Waste Removal Closure For Closed-loop Systems That Utilize Above Gr	ound Steel Tanks or Haul-off Rins Only: (19 15 17 13 D NMAC)							
Instructions: Please identify the facility or facilities for the disposal of liquid		facilities						
are required. Disposal Faculity Name:	Disposal Faculty Permit #							
Disposal Facility Name.								
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 of	appropriate requirements of Subsection H of 19.15.17.13 NMA of Subsection I of 19 15 17 13 NMAC	C						
17								
Siting Criteria (Regarding on-site closure methods only: 19.15.17. Instructions Each sting criteria requires a demonstration of compitance in the closertain siting criteria may require administrative approval from the appropriate distortion of approval Justifications and/or demonstrations of equivalency of a consideration of approval.	ure plan. Recommendations of acceptable source material are provided belitrict office or may be considered an exception which must be submitted to the							
Ground water is less than 50 feet below the bottom of the buried waster	e.	Yes X No						
- NM Office of the State Engineer - IWATERS database search; USGS:	Data obtained from nearby wells	∐ N/A						
Ground water is between 50 and 100 feet below the bottom of the bur	ied waste	Yes X No						
- NM Office of the State Engineer - 1WATERS database search; USGS;	Data obtained from nearby wells	□N/A						
Ground water is more than 100 feet below the bottom of the buried wa	aste.	X Yes 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 oft (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 of Visual inspection (certification) of the proposed site, Aerial photo, satel	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  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 app	proval obtained from the municipality							
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map; Topographic map, V	sual 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-Mir	ning and Mineral Division	Yes X No						
Within an unstable area Engineering measures incorporated into the design; NM Bureau of Geo		Yes XNo						
Topographic map Within a 100-year floodplain FEMA map		Yes X No						
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instruction. by a check mark in the box, that the documents are attached.	s: Each of the following items must bee attached to the closur	re plan. Please indicate,						
X Siting Criteria Compliance Demonstrations - based upon the ap	ppropriate requirements of 19.15.17.10 NMAC							
X Proof of Surface Owner Notice - based upon the appropriate re	quirements of Subsection F of 19.15.17.13 NMAC							
Construction/Design Plan of Burial Trench (if applicable) base	d 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 requires	ments of 19.15 17 13 NMAC							
Confirmation Sampling Plan (if applicable) - based upon the ap	propriate requirements of Subsection F of 19 15 17.13 NMAC							
X Waste Material Sampling Plan - based upon the appropriate rec	quirements of Subsection F of 19.15.17.13 NMAC							
X Disposal Facility Name and Permit Number (for liquids, drillin	g fluids and drill cuttings or in case on-site closure standards ca	nnot be achieved)						
X Soil Cover Design - based upon the appropriate requirements o								
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								

Operator Application Certification		,
Operator Application Certification:  I hereby certify that the information submitted with this application is t	rue, accurate and complete to the	best of my knowledge and belief.
Name (Print): Crystal Tafoya	Title	Regulatory Technician
Signature: Canada Tal	Date:	10/3/08
e-mail address crystal taloya@conocophillips.com		505-326-9837
20		
OCD Approval: Permit Application (including closure plan	n) Closure Plan (only)	OCD Conditions (see attachment)
OCD Representative Signature:	ell -	Approval Date: //_ 4-08
Title: Emin/spec	OCD P	
Title: EMITO/SPEC	OCD Perm	nit Number:
Closure Report (required within 60 days of closure completic Instructions: Operators are required to obtain an approved closure pla report is required to be submitted to the division within 60 days of the capproved closure plan has been obtained and the closure activities hav	in prior to implementing any closi completion of the closure activitie re been completed.	ure activities and submitting the closure report. The closure
22		
Closure Method:	_	
Waste Excavation and Removal On-site Closure Mo	ethod Alternative Closure	Method Waste Removal (Closed-loop systems only)
If different from approved plan, please explain		
23 <u>Closure Report Regarding Waste Removal Closure For Closed-loop</u> Instructions: Please identify the facility or facilities for where the liquid were utilized.		
Disposal Facility Name:	Disposal Facility	Permit Number.
Disposal Facility Name:	Disposal Facility	Permit Number
Were the closed-loop system operations and associated activities per	P	or be used for future service and opeartions?
Yes (If yes, please demonstrate compliane to the items below)	No	
Required for impacted areas which will not be used for future service  Site Reclamation (Photo Documentation)	ce and operations:	
Soil Backfilling and Cover Installation		
Re-vegetation Application Rates and Seeding Technique		
24		
Closure Report Attachment Checklist: Instructions: Each of	f the following items must be atta	nched 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)		
Confurmation Sampling Analytical Results (if applicable)		
Waste Material Sampling Analytical Results (if applicable)	)	
Disposal Facility Name and Permit Number	"	
Soil Backfilling and Cover Installation		
Re-vegetation Application Rates and Seeding Technique		
Site Reclamation (Photo Documentation)		
On-site Closure Location: Latitude:	Longitude:	NAD 1927 1983
Operator Closure Certification:  I hereby certify that the information and attachments submitted with thi		
the closure complies with all applicable closure requirements and cond	litions specified in the approved c	losure plan.
Name (Print)	Title:	
Signature.	Date:	
e-mail address.	Telephone:	

# New Mexico Office of the State Engineer POD Reports and Downloads

Towns	ship: 27N	Range: 09W	Sections:			
NAD27	<b>X</b> :	Y:	Zone:	S	Search Radius:	
County:	<b>(</b>	Basin:			Number:	Suffix:
Owner Name: (I	First)	(L	ast) All	C	Non-Domestic	O Domestic
	POD / Su	face Data Report	er Column Repor		Water Report	
	[	Clear Form	iWATERS Me		elp	
		s are 1=NW 2=	ATER COLUMN RI	)		Car
POD Number		s are biggest	to smallest	)	Depth	Depth Wate

No Records found, try again

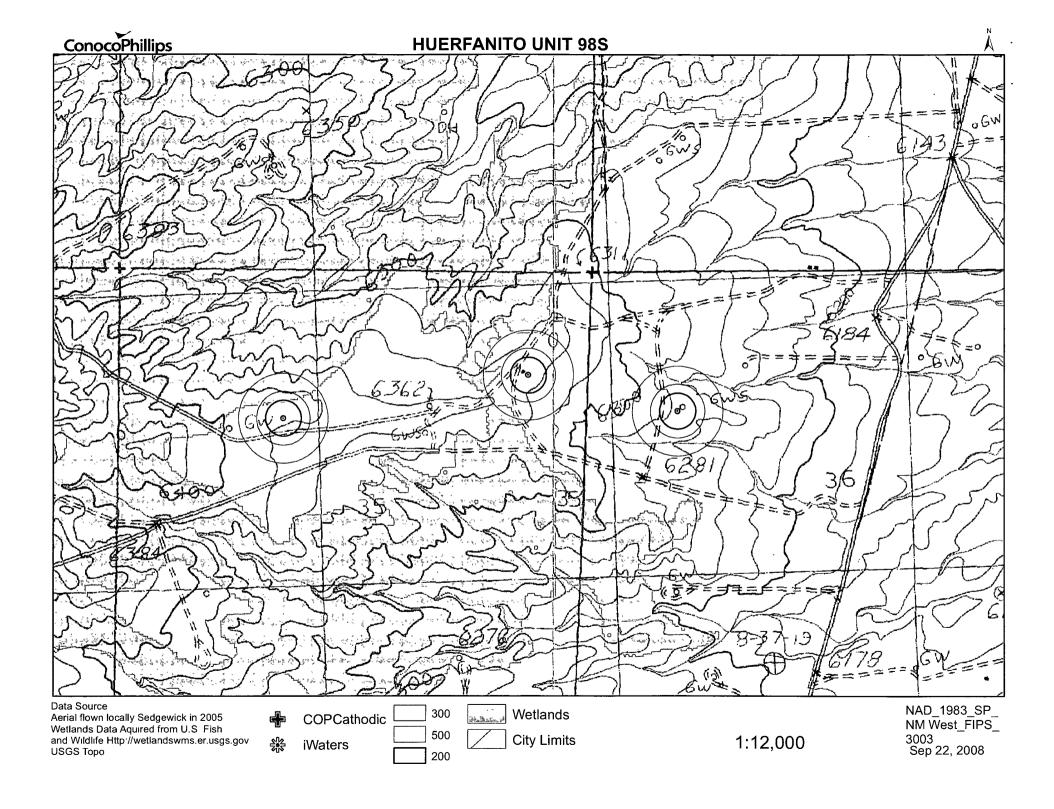
## New Mexico Office of the State Engineer POD Reports and Downloads

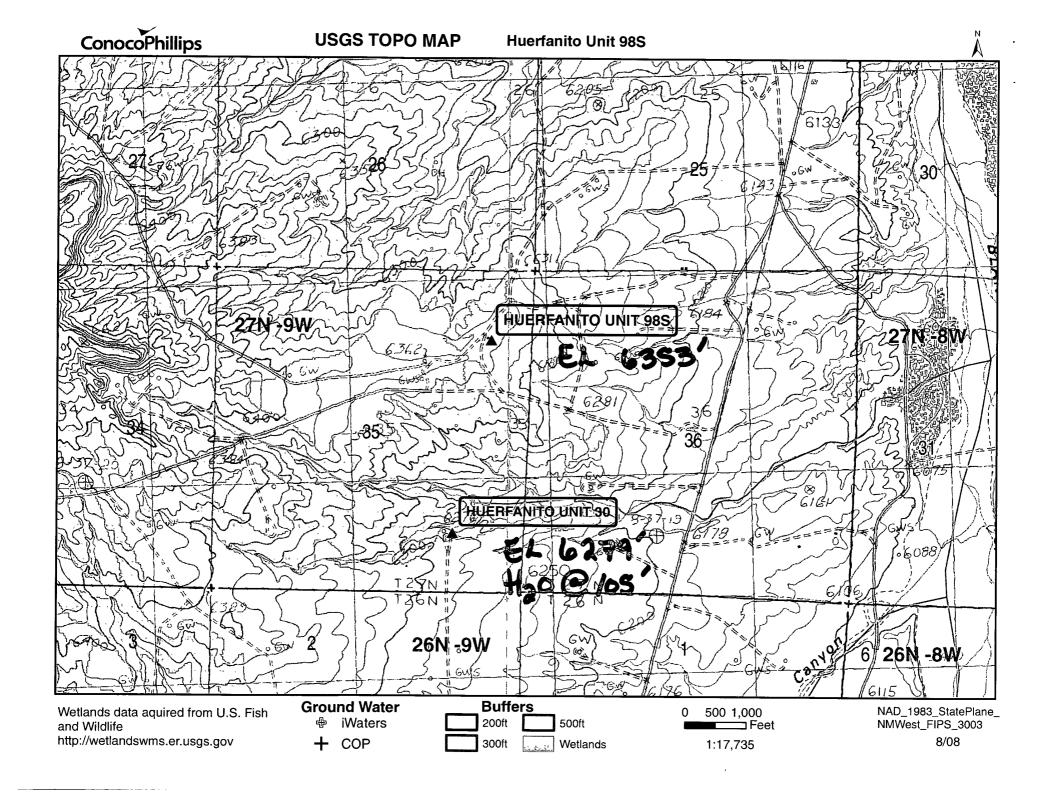
Township:	28N Range: 09W	Sections:					
NAD27 X:	Y: [	Zone:	Search Radius:				
County:	Basin:	- 1	Number:	Suffix:			
Owner Name: (First)	(La	ast) ⊚All	O Non-Domestic	: ODomestic			
POD / Surface Data Report Avg Depth to Water Report  Water Column Report							
Clear Form iWATERS Menu Help							
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	The second secon	Act Act E				

#### WATER COLUMN REPORT 10/02/2008

	(quarter	s are	3 T=1	MN	2=	=NE	3=SW 4=S	E)				
	(quarter	s are	e big	gge	est	to	smalles	t)		Depth	Depth	Wat∈
POD Number	Tws	Rng	Sec	đ	Œ	đ	Zone	x	Y	Well	Water	Colum
SJ 03746 POD1	28N	09W	20	1	2	3				190	40	15
SJ 00018	28N	09W	20	3	1	4				135	71	6
SJ 02800	28N	09W	24	4	2	3				200		

Record Count: 3





30-045-28946 HUERFANITO UNIT # 98-M 30-045-06097 HUERFANITO UNIT # 30

3682

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

Operator Metidian Oil INC. Location: Unit O Sec. 35 Twp 27 Rng 09
Name of Well/Wells.or Pipeline Serviced
HUERFANITO UNIT #98M AND HUERFANITO UNIT #30-35
Elevation Completion Date 9/21/93 Total Depth 355 Land Type F
Casing Strings, Sizes, Types & Depths 9/16 Set 59 of 8"PVC CASING.
NO GAS, WATER, OF Boulders Were ENCOUNTERED DUTING CASING.
If Casing Strings are cemented, show amounts & types used <u>Comented</u>
WITH 16 SACKS.
If Cement or Bentonite Plugs have been placed, show depths & amounts used
None
Depths & thickness of water zones with description of water: Fresh, Clear,
Salty, Sulphur, Etc. WIT A Seep AT 105, And A Fresh WATER
Vein AT 160. A WATER SAMPLE WAS TAKEN.
Depths gas encountered: Nowe
Ground bed depth with type & amount of coke breeze used: 355 DepTW.
Used 93 SACKS OF ASBUTY 218R (4650#)
Depths anodes placed: 322, 310, 300, 283, 275, 265, 256, 220, 213, 203, 195, 185, 175, 165, + 155
Depths vent pipes placed: Surface To 355.
Vent pipe perforations: Bottom 250' DECEIVED
Remarks:
OIL CON. DIV.
\ DIST. 3

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

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

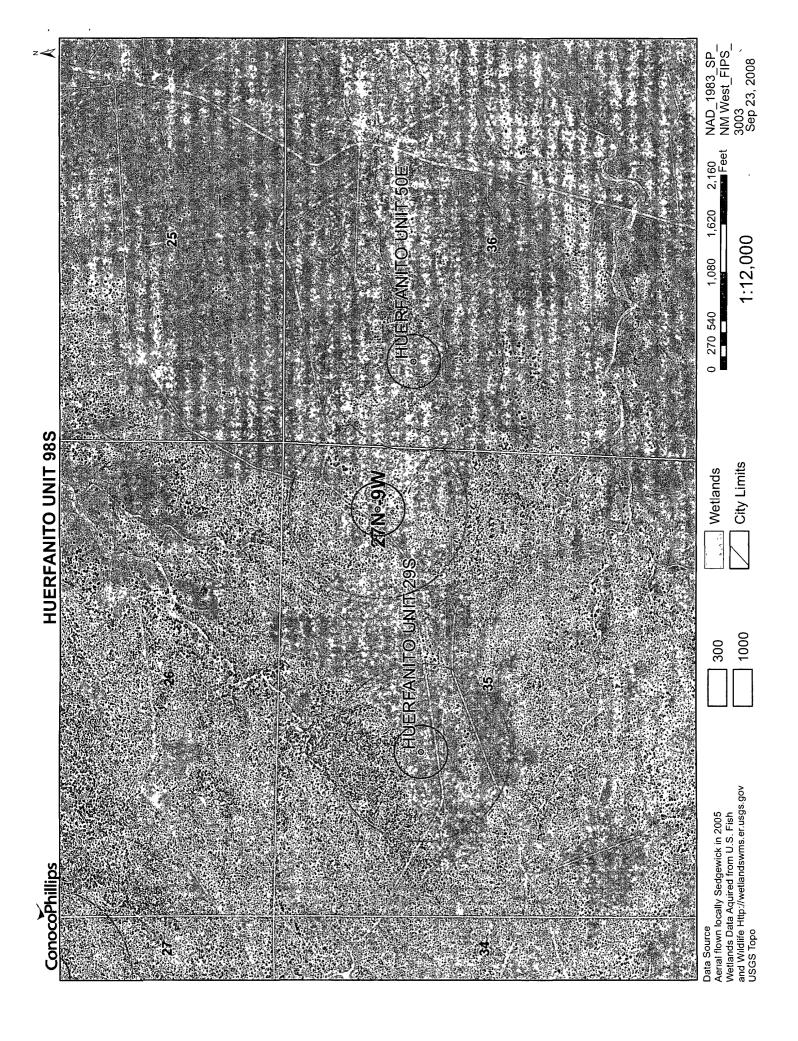
## NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico

## REQUEST FOR (GAS) ALLOWABLE

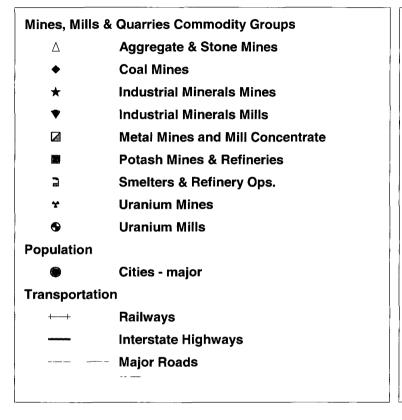
New Well

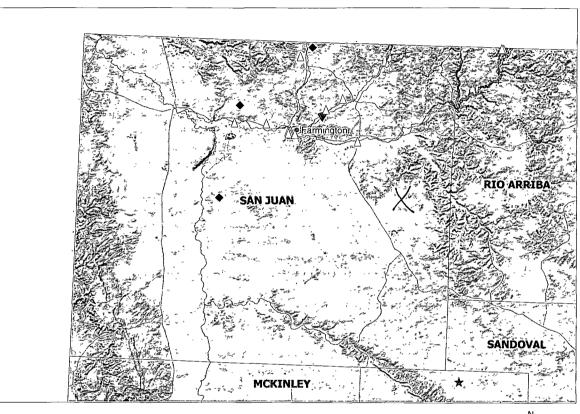
This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion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

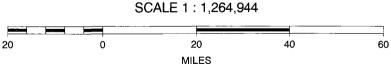
				Farmington, New Mexico (Place)	November 17, 1955
E ARE I	HEREBY R	EQUESTI	NG AN ALLOWABLE	FOR A WELL KNOWN AS:	()
JGle	nn Turne	perator)	Huerfanito Unit		SE 1/4 SE 1/4.
Dis P	, Sec	. 35	T. 27-18 R. 9-	NMPM, See Brimeo PL	ctures Cliffs Pool
(Unit) San Jue	n County	_			
			County. Date Spudded	Sep. 17. 1955, Date Compl	eted
Pieas	se indicate	location:	<b>-</b>		
			Elevation 6279	Total Depth 2151	, P.B
			ł	2070 Name of Prod.	
			1	None	,
ļ		}	Depth to Casing sh	noe of Prod. String	
		x	Natural Prod. Test		ВОРД
			= <del>-</del>	bbls. Oil in	
		· · · · · · · · · · · · · · · · · · ·	Test after acid or s	hot	BOPD
Casing Size	and Cement Feet	ing Record Sax	Based on	bbls. Oil in	Hrs Mins
3-5/8"	82,5	80	.}	1 776 MCF/Day	
-1/2"	2075	100	Size choke in inch	es 2" I.D. Test Nipple	
l" Nibing	21143	None	Date first oil run te	Stotanks or gas to Transi ission system	ut in for potential
			Transporter taking	Oil or Gas: El l'aso Nature	al Gas Company
marks:	will	take ga	J	hen connections are complet	
I hereb				ue and complete to the best of my kn	
			NOV 2 5 1955 , 19		MER
OII	L CONSER	RVATION	COMMISSION	By: (Signatu	a la
· · · · · · · · · · · · · · · · · · ·	1.6.668.	vij C	60 mm 61	Title. C. Bensen Neal, ap	rent in Farmington regarding well to.
le Oll ar	ad Ges in	SEGGICE F	15t. ij 3.	Name C. Beesen Neal	
				Address Box 7:8 - Farmir	igtor, New Mexico



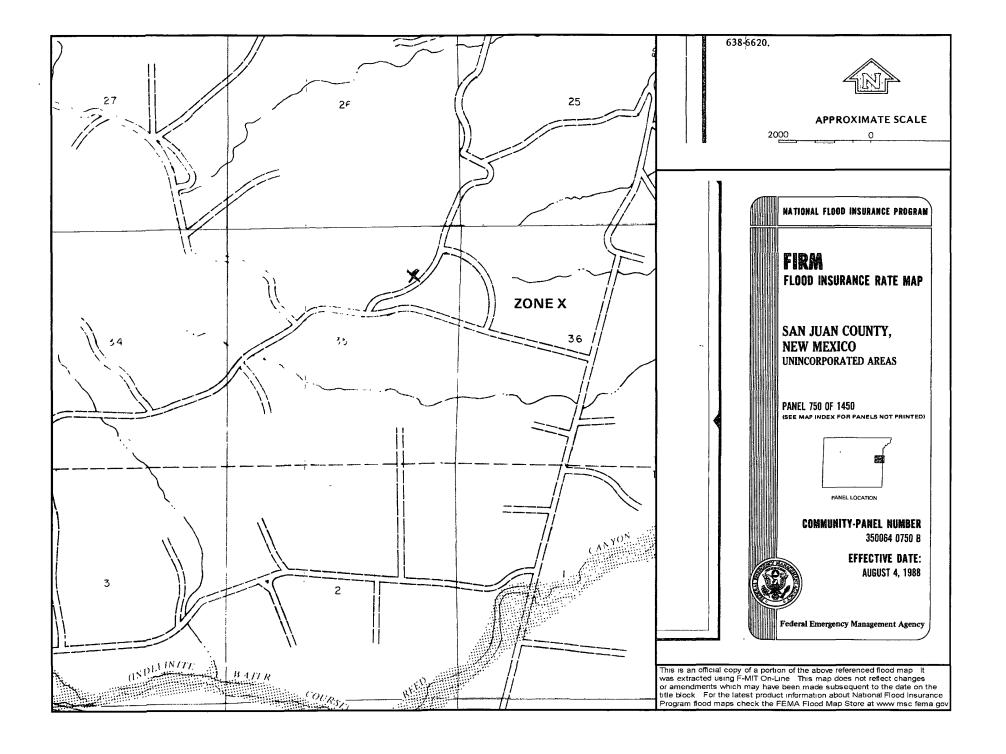
# Huerfanito Unit 98S Mines, Mills and Quarries Web Map











## Hydrogeological Report for Huerfanito Unit 98S

### **Regional Geological context:**

The Nacimiento Formation is of Paleocene age (Baltz, 1967, p. 35). It crops out in a broad band inside the southern and western margins of the central basin and in a narrow band along the west face of the Nacimiento Uplift. The Nacimiento is a nonresistant unit and typically erodes to low, rounded hills or forms badland topography.

The Nacimiento Formation occurs in approximately only the southern two-thirds of the San Juan Basin where it commformably overlies and intertongues with the Ojo Alamo Sandstone (Fassett, 1974, p. 229). The Nacimiento Formation grades laterally into the main part of the Animas Formation (Fassett and Hinds, 1971, p. 34); thus, in this area, the two formations occupy the same stratigraphic interval.

Strata of the Nacimiento Formation were deposited in lakebeds in the central basin area with lesser deposition in stream channels (Brimhall, 1973, p. 201). In general, the Nacimiento consists of drab, interbedded black and gray shale with discontinuous, white, medium- to very coarse grained arkosic sandstone (Stone e al., 1983, p.30). Stone et al. indicated that the formation may contain more sandstone than commonly reported because some investigators assume the slope-forming strata in the unit area shales, whereas in many places the strata actually are poorly consolidated sandstones. Total thickness of the Nacimiento Formation ranges from about 500 to 1,300 feet. The unit generally thickens from the basin margins toward the basin center (Steven et al., 1974). The sandstone deposits within the Nacimiento Formation are much thinner than the total thickness of the formation because their environment of deposition was localized stream channels (Brimhall, 1973, p. 201). The thickness of the combined San Jose, Animas, and Nacimiento Formations ranges from 500 to more than 3.500 feet.

#### **Hydraulic Properties:**

Reported well yields for 53 wells completed in either the Animas or Nacimiento Formations range from 2 to 90 gallons per minute and the median yield is 7.5 gallons per minute. The primary use of water from Nacimiento and Animas Formations is domestic and livestock supplies. There are no known aquifer tests for the Animas or Nacimiento Formations, but specific capacities reported for six wells range from 0.24 to 2.30 gallons per minute per foot of drawdown (Levings et al., 1990).

The Animas and Nacimiento Formations are in many ways hydrologically similar to the San Jose Formation because sands in both units produce approximately the same quantities of water. However, the greater percentage of fine materials in the Animas and Nacimiento Formations may restrict downward vertical leakage to the Ojo Alamo Sandstone or Kirtland Shale. The poorly cemented fine material is highly erodible, forms a badland terrain, and supports only spotty vegetation. These conditions are more conductive to runoff than retention of precipitation.

#### **References:**

Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper

552, 101 p.

Brimhall, R.M., 1973, Ground-water hydrology of Tertiary rocks of the San Juan Basin, New Mexico, in Fassett, J.E., ed., Cretaceous and Tertiary rocks of the Southern Colorado Plateau: Four Corners Geological Society Memoir, p. 197-207.

Fassett, J.E., 1974, Cretaceous and Tertiary rocks of the eastern San Juan Basin, New Mexico and Colorado, in Guidebook of Ghost Ranch, central-northern New Mexico: New Mexico Geological Society, 25th Field Conference, p. 225-230.

Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.

Levings, G.W., Craigg, S.d., Dam, W.L., Kernodle, J.M., and Thorn, C.R., 1990, Hydrogeology of the San Jose, Nacimiento, and Animas Formations in the San Juan structural basin, New Mexico, Colorado, Arizona, and Utah: USGS Hydrologic Investigations Atlas HA-720-A, 2 sheets.

Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

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

The Huerfanito Unit 98S 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 location is not within a 100-year floodplain area as indicated on the FEMA Map. The groundwater depth is considered to be greater than 100' as determined by the topographic map and the Cathodic well data from the Huerfanito Unit 30 with an elevation of 6279' and groundwater depth of 105'. The subject well has an elevation of 6353' which is greater than the Huerfanito Unit 30, 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 Cathodic data provided the indication of groundwater depth is greater than 100'. The hydro geologic analysis indicates the groundwater depth and the Nacimiento formation will create a stable area for this new location.

### Tafoya, Crystal

From:

Tafoya, Crystal

Sent:

Thursday, July 10, 2008 8:16 AM

To: Subject:

'mark\_kelly@nm.blm.gov' OCD Pit Closure Notification

The following temporary pits will be closed on-site. The new OCD Pit Rule 17 requires the surface owner be notified. Please feel free to contact me at any time if you have any questions. Thank you!

Allison Unit 2B

Allison Unit 40N

Angel Peak B 27E

Ballard 11F

Cain 725S

Canyon Largo Unit 250N

Canyon Largo Unit 279E

Canyon Largo Unit 288E

Canyon largo Unit 297E

Canyon Largo Unit 465E

Carson SRC 4E

Day B 4P

Day B 5A

East 17S

**EPNG A 1B** 

**EPNG B 1M** 

Federal A 1E

Filan 5M

Filan 5N

Fogelson 4 100

Fogelson 4 100S

Grambling C 202S

Hagood 19

Hamner 9S

Hardie 4P

Hare 295

Heaton Com 100

Helms Federal 1G

Howell 12

Huerfanito Unit 103F

**Huerfanito Unit 29S** 

**Huerfanito Unit 39S** 

**Huerfanito Unit 47S** 

Huerfanito Unit 50E

Huerfanito Unit 75E

Huerfanito Unit 83E Huerfanito Unit 87E

Huerfanito Unit 90E Huerfanito Unit 90M

Huerfanito Unit 98S

Huerfano Unit 108F

Huerfano Unit 282E

Huerfano unit 305

Huerfano unit 307

Huerfano Unit 554

Johnston Federal 24S

District [

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, 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 & Natural Resources Department

OIL CONSERVATION DIVISION Submit to Appropriate District Office 1220 South St. Francis Dry Submit State Lease - 7 Copies

Santa Fe, NM 87505

JAN 2 2 2008

Form C-102

Revised October 12, 2005

Fee Lease - 3 Copies

☐ AMMENDED REPORT

## Bureau of Land Management Farmington Field Office WELL LOCATION AND ACREAGE DEDICATION PLAT

	PI Number	577		<sup>2</sup> Pool Code <sup>3</sup> Pool Name 71629  BASIN FRUITLAND COAL											
	Property Code     Property Name HUERFANITO UNIT							5 Property Name 6 Well Number							
7138 7 OGRID No			·		8 Operato				98S						
14538	•		BUR	LINGTON	•	OIL AND GAS (	COMPANY LP		6353						
					10 SURFACE I	LOCATION									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County						
A	35	27-N	9-W	9-W 1145 NORTH 675 EAST				EAST	SAN JUAN						
			F	Bottom He	ole Location I	f Different Fro	m Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County						
A	_		i												
Dedicated Acres		or Infall	Consolidation	n Code	Order No.										

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

16 N 89°20' W N 89°22'06" W	LAT: 36.5357 LONG: 107.75155	FLAG 1D 83 18° N 675' 0° W D 27 68' N 6' W	Z 30 E Z 645.6 (R) Z 26'59" E Z 643.9' (M)	OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my bnowledge and bellef, and that this organization either owns a warting interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well as this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling order hardinfore entered by the division.  Signature  Rhonda Rogers  Printed Name  Regulatory Technician  Title and E-mail Address  10/30/07
	T-27-N,		Z Z	18 SURVEYOR CERTIFICATION  I hereby certify that the well location shown on this plat was plotted from felid notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my beluef.
·	USA SF- SECTIO T-27-N,	ON 35		Date of Survey: 10/04/07 Signature and Seal of Professional Surveyor  PROADHUL
				Certificate Number: NM 11393

## 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
  - ii. 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	<u>√5</u> 60
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. One (poor quality)

Purity

Source No. two (better quality)

Purity

Source No. two (better quality)

Purity

80 percent

Germination

Germination

Germination

Fercent PLS

Source No. two (better quality)

Purity

80 percent

Percent PLS

Source No. two (better quality)

Purity

80 percent

Percent PLS

Source No. two (better quality)

Purity

80 percent

Percent PLS

Source No. two (better quality)

5 lb. bulk seed required to make 2 lb. bulk seed required to make

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.