1625 N French Dr., Hobbs, NM 88240

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.

Liner Type:

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

,			
Type of action:	rmit of a pit, closed-loop system, below	grade tank, or proposed alternati	ve method
Cle	osure of a pit, closed-loop system, belo	w-grade tank, or proposed alternat	ive method
Mo	odification to an existing permit		
	osure plan only submitted for an existir low-grade tank, or proposed alternative		closed-loop system,
Instructions: Please submit one applicati	on (Form C-144) per individual pit, cl	osed-loop system, below-grade ta	nk or alternative request
	est does not relieve the operator of liability should of	•	=
environment Nor does approval relieve the op	perator of its responsibility to comply with any other	applicable governmental authority's rules, re	gulations or ordinances
Operator: Burlington Resources Oil & Gas	s Company, LP	OGRID#: 14538	
Address: PO Box 4289, Farmington, NM	87499		
Facility or well name: Huerfanito Unit #90	M		
API Number: 30-045-3	4254 OCD Perm	nit Number:	
U/L or Qtr/Qtr: H(SENE) Section:	1 Township: 26N Rang	ge: 9W County: San J	Juan
Center of Proposed Design: Latitude:	36.51711' N Longitu	de: 107.73445' W	NAD: X 1927 1983
Surface Owner: X Federal	State Private Tribal Trust	or Indian Allotment	
Permanent Emergency Cavitation X Lined Unlined Liner type: X String-Reinforced		DPE HDPE PVC Otho	er
			
Liner Seams: X Welded X Factory	Other Volume:	4400 bbl Dimensions L 65	x W <u>45'</u> x D <u>10'</u>
Liner Seams: X Welded X Factory Closed-loop System: Subsection H of	19.15.17.11 NMAC		
Liner Seams: X Welded X Factory Closed-loop System: Subsection H of	19.15.17.11 NMAC In a new well Workover or Drilling (A	Applies to activities which require prices of the property of	or approval of a permit or 23456789
Liner Seams: X Welded X Factory 3	19.15.17.11 NMAC ag a new well	Applies to activities which require prices of the property of	or approval of a permit or

Alternative Method:

Visible sidewalls and liner

Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Other

Other

PVC

Visible sidewalls only

mil

HDPE

to "						
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pit, temporary pits, and below-grade tanks)						
Chain link say feet in height two strands of harhed wire at ton (Paguira) if located within 1000 feet of a narrow next recidence (about howard) mutuation or above h						
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' of hogwire fence with one 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		ļ				
9						
Administrative Approvals and Exceptions:						
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15 17 NMAC for guidance.						
Please check a box if one or more of the following is requested, if not leave blank:						
Administrative approval(s): Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for cons	ideration of ap	proval.				
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval						
10						
Siting Criteria (regarding permitting): 19.15.17.10 NMAC						
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of 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	XNo				
 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	XNo				
lake (measured from the ordinary high-water mark).	L	٠٠٠٠ ا				
- 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	X No				
application.		_				
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)	NA					
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image						
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)	XNA					
- 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	Yes	X No				
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						
- 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	X No				
- Written confirmation or verification from the municipality; Written approval obtained from the municipality						
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	X No				
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	XNo				
,	∏Yes	X No				
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological 	L	AINO				
Society; Topographic map						
Within a 100-year floodplain	Yes	X No				
- FEMA map		Ld				

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
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
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
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)
XIn-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.
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
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
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)
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

Form C-144 Oil Conservation Division Page 3 of 5

Waste Removal Closure For Closed-loop Systems That Utilize Above Gro Instructions: Please identify the facility or facilities for the disposal of liquids	und Steel Tanks or Haul-off Bins Only: (19.15 17.13 D NMAC)		
facilities are required.	, artiting fittius and artit claimegs. Ose and claiment if more man two		
	Disposal Facility Permit #:		
· · · · · · · · · · · · · · · · · · ·	Disposal Facility Permit #:		
Will any of the proposed closed-loop system operations and associated Yes (If yes, please provide the information No	activities occur on or in areas that will not be used for future	service and	
Required for impacted areas which will not be used for future service and open Soil Backfill and Cover Design Specification - based upon the a Re-vegetation Plan - based upon the appropriate requirements of Site Reclamation Plan - based upon the appropriate requirements.	ppropriate requirements of Subsection H of 19.15.17 13 NMA f Subsection I of 19.15.17 13 NMAC	vC	
Siting Criteria (Regarding on-site closure methods only: 19.15.17.1 Instructions Each siting criteria requires a demonstration of compliance in the closus certain siting criteria may require administrative approval from the appropriate distribution for consideration of approval Justifications and/or demonstrations of equivalency are	re plan Recommendations of acceptable source material are provided belo act 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 waste		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 burne	ed waste	Yes	XNo
- NM Office of the State Engineer - (WATERS database search; USGS; I	Data obtained from nearby wells	☐N/A	_
Ground water is more than 100 feet below the bottom of the buried wa	ste.	X Yes	No
- NM Office of the State Engineer - iWATERS database search; USGS; I		∏N/A	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any oth (measured from the ordinary high-water mark).	er significant watercourse or lakebed, sinkhole, or playa lake	Yes	XNo
- Topographic map; Visual inspection (certification) of the proposed site			
Within 300 feet from a permanent residence, school, hospital, institution, or case - Visual inspection (certification) of the proposed site; Aerial photo, satel		Yes	XNo
· ·		Yes	XNo
Within 500 horizontal feet of a private, domestic fresh water well or spring the watering purposes, or within 1000 horizontal fee of any other fresh water well - NM Office of the State Engineer - iWATERS database; Visual inspection Within incorporated municipal boundaries or within a defined municipal fresh that the NMSA 1079 Section 2 277 accounted municipal fresh.	l or spring, in existence at the time of the initial application on (certification) of the proposed site	Yes	XNo
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	isual inspection (certification) of the proposed site	Yes	X No
Within the area overlying a subsurface mine.		Yes	XNo
- Written confiramtion or verification or map from the NM EMNRD-Min	ung and Mineral Division	□v	V.
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geol	ogy & Mineral Resources; USGS; NM Geological Society;	Yes	ANO
Topographic map Within a 100-year floodplain FEMA map		Yes	XNo
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instruction indicate, by a check mark in the box, that the documents are attache		ure plan. Pled	use
X Siting Criteria Compliance Demonstrations - based upon the ap			
X Proof of Surface Owner Notice - based upon the appropriate re-	•		
Construction and Design of Burial Trench (if applicable) based			
X Protocols and Procedures - based upon the appropriate requiren		_	
Confirmation Sampling Plan (if applicable) - based upon the ap	propriate requirements of Subsection F of 19.15.17.13 NMAC	2	
Waste Material Sampling Plan - based upon the appropriate req			
 \overline{X} Disposal Facility Name and Permit Number (for liquids, drillin \overline{X} Soil Cover Design - based upon the appropriate requirements o 	f Subsection H of 19.15.17.13 NMAC	annot be achie	eved)
 Re-vegetation Plan - based upon the appropriate requirements of Site Reclamation Plan - based upon the appropriate requirement 			

Form C-144 Oil Conservation Division Page 4 of 5

19 Operator Applica	ation <u>Certific</u> ation:	,			,
	the information submitted with this	application is true, accur	ate and complete to the	best of my knowledge and belief.	
Name (Print):	Crystal Tafe	оуа	Title	Regulatory Technician	
Signature:	Constal	Taloua	Date:	10/3/08	
e-mail address:	crystal tafoya@conoc	ophilly's cor	Telephone:	505-326-9837	
	**** ·				
20 OCD Approval:	Permit Application (including	ng closure plan)	Closure Plan (only)	OCD Conditions (see atta	chment)
OCD Representa					
OCD Representa	uve signature:	d bel	<u></u>	Approval Date:	11-4-08
Tîtle:	Enviro/spec		OCD Peri	nit Number:	
21 Closure Report (1	required within 60 days of clos	ure completion). Subse	etion K of 19 15 17 13 NM A	r	
Instructions. Operat	tors are required to obtain an appro	ved closure plan prior to	implementing any clos	ure activities and submitting the clo	
· •	be submitted to the division within an has been obtained and the closur			es. Please do not complete this sect	ion of the form until an
provide comine pu			-	e Completion Date:	
22 Closure Method:					
		site Closure Method	Alternative Closure	Method Waste Removal (C	losed-loop systems only)
	from approved plan, please explain.	one crowner memou			,
23 Closure Report Res	garding Waste Removal Closure F	or Closed-loon Systems	That Utilize Above G	round Steel Tanks or Haul-off Bir	s Only:
Instructions: Please	identify the facility or facilities for				
were utilized.	N.		D I Foot to	Demock Man 1	
Disposal Facility Disposal Facility			-	y Permit Number y Permit Number:	· • • • • • • • • • • • • • • • • • • •
	loop system operations and associat	ed activities performed o	•		eartions?
_	please demonstrate complilane to th	· -]No	ор	
Required for imp	pacted areas which will not be used j	or future service and ope	erations:		
Site Reclam	ation (Photo Documentation)				
! =	ling and Cover Installation				
Re-vegetatio	on Application Rates and Seeding Te	echnique			
Claguma Ronor	et Attachmant Charleliate Justine	ations. Each of the follo	union itama must be att	ashed to the elegene nament. Bloom	indicate by a check mark in
	rt Attachment Checklist: Instrudocuments are attached.	сионѕ: Еасн ој те јоно	wing tiems musi ve att	acnea to the closure report. Flease	inaicate, by a check mark in
Proof of Cl	osure Notice (surface owner and	division)			
Proof of De	eed Notice (required for on-site c	losure)			
Plot Plan (f	for on-site closures and temporary	pits)			
=	on Sampling Analytical Results (• •			
	erial Sampling Analytical Results				
1 😕 ´	acility Name and Permit Number				
=	Illing and Cover Installation ion Application Rates and Seedin	a Technique			
=	nation (Photo Documentation)	5 recinique			
	osure Location: Latitude:		Longitude:	NAD 🗍	1927 1983
					<u> </u>
25					No
Operator Closure	e Certification:				
					wledge and belief. I also certify that
the closure complies	s with all applicable closure require	ments and conditions spe	ecified in the approved	ctosure plan.	
Name (Print)			Title _		*****
Signature.			Date:		
-					
e-mail address			Telephone:		

Township: 26N	Range: 09W Sections: 1	1,2,11,12
NAD27 X::	Y: Zone:	Search Radius:
County:	Basin:	Number: Suffix:
Owner Name: (First)	(Last) All	ONon-Domestic ODomestic
POD / Su	rface Data Report A Water Column Rep	ort
	Clear Form iWATERS I	Menu Help

WATER COLUMN REPORT 07/26/2008

(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are biggest to smallest) Depth Depth Wat∈ POD Number Tws Rng Sec qqq Zone X Well Water Colum SJ 02961 26N 09W 01 2 2 3 1500 SJ 02962 26N 09W 01 3 2 3 1500 SJ 01756 26N 09W 11 2 2 3 75 40 26N 09W 12 3 3 3 SJ 03811 POD1 17 348 175

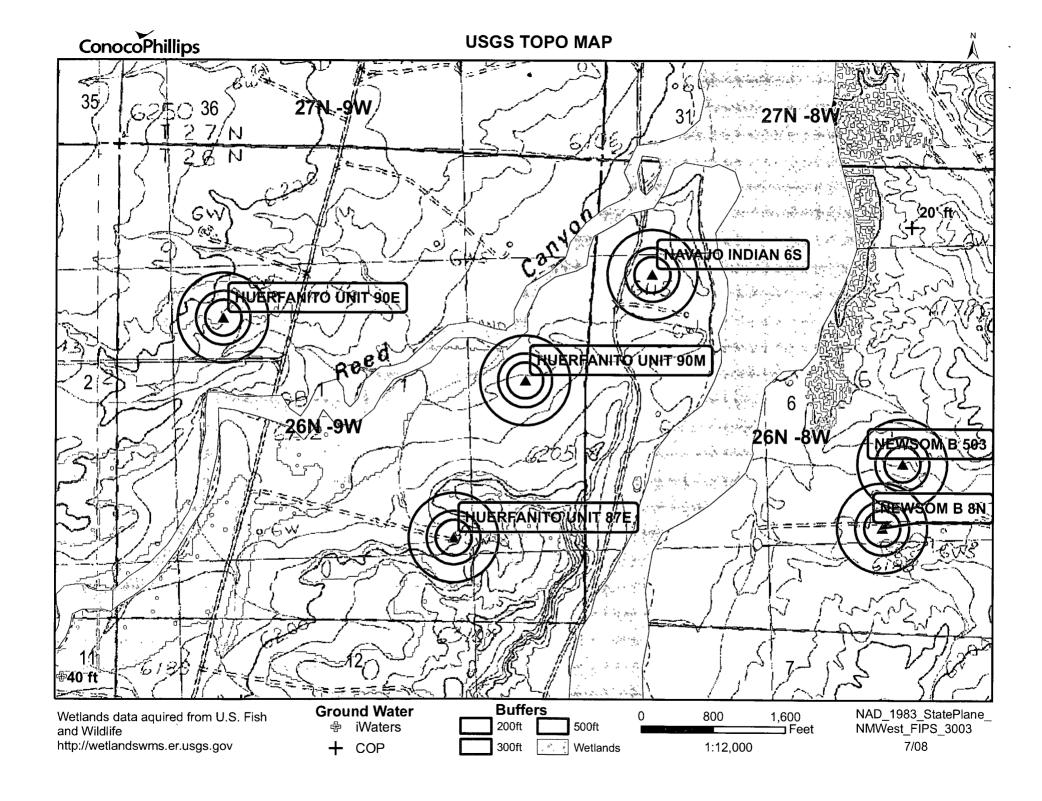
Record Count: 4

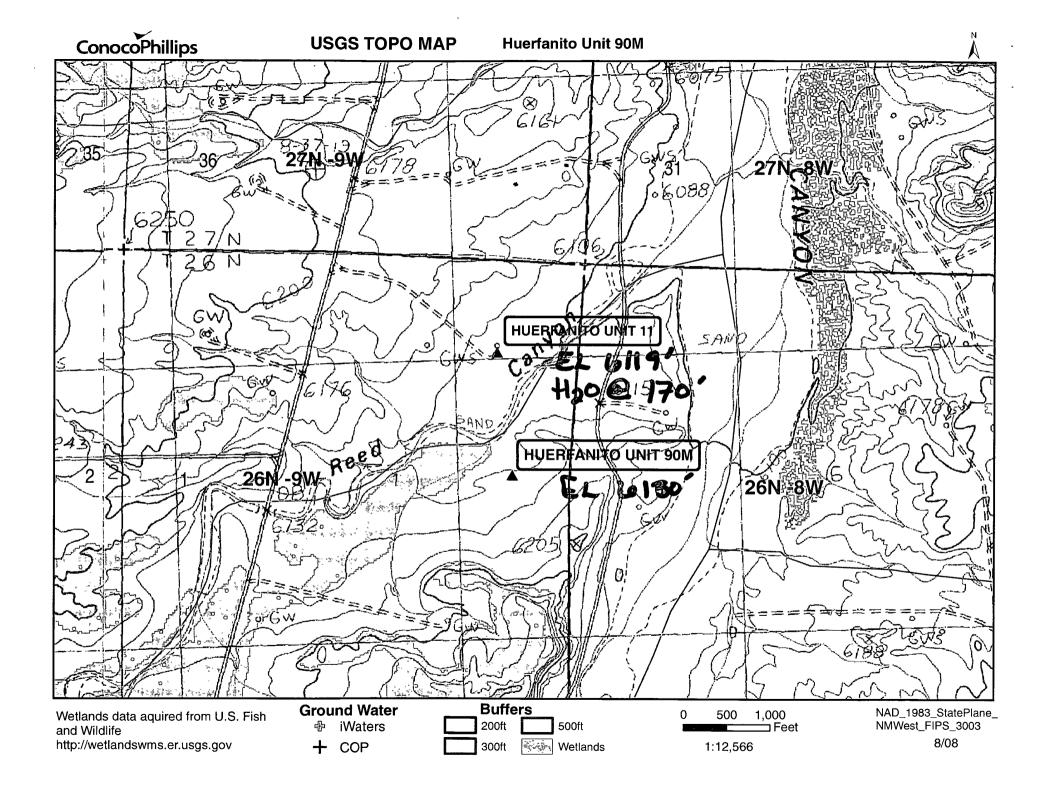
Township: 27N	Range: 09W	Sections: 35,3	36		-	
NAD27 X:	Y :	Zone:		Search Radius:	4 9 9	
County:	Basin:		100	Number:	Suffix	::
Owner Name: (First)	(La	st) ② All	is measured to be	O Non-Domestic	: ODome	estic
POD / Su	rface Data Report Wate	Avg r Column Report		to Water Report		
(Clear Form	iWAŢERŞ Mei	าน	Help		
(quarter	s are 1=NW 2=N s are biggest	to smallest)		Depth	-	Wate
POD Number Tws	Rng Sec q q	q Zone	х	Y Well	Water	Colum

Township: 27N Range	: 08W Sections: 31		e e e e e e e e e e e e e e e e e e e
NAD27 X: Y:	Zone:	Search Radius:	1
County: Basin	:: [']	Number:	Suffix:
Owner Name: (First)	(Last) All	O Non-Domestic	O Domestic
POD / Surface Dat	a Report Avg Water Column Repor	Depth to Water Report	
Clear F	Form iWATERS Me	nu Help	
(quarters are	WATER COLUMN RI 1=NW 2=NE 3=SW 4=SE biggest to smallest ec q q q Zone	•	Depth Wate Water Colum

Towns	ship: 26N	Range: 08W	Sections: 6,7	 7		-		
NAD27	X:,	Y:	Zone:		Search Rac	dius:		
County:		Basin:	I		Number:		Suffix	ι:
Owner Name: (F	First)	(L	ast) ② All		○ Non-Dor	nestic	ODome	estic
<u></u>	POD / Sur	face Data Repoi	ter Column Repor	t	to Water Rep	ort		
POD Number		s are 1=NW 2	ATER COLUMN R =NE 3=SW 4=SE t to smallest q Zone)	I	S Depth	Depth Water	Wate Colum

No Records found, try again





90-30-045-60296 150-30-045-21187 11-30-045-06063

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

Operator MERIDIAN OIL Location: Unit NE Sec. 1 Twp 26 Rng 9
Name of Well/Wells or Pipeline Serviced HUERFANITO UNIT #90, #11, #150
cps 1008w
Elevation 6111' Completion Date 8/8/75 Total Depth 425' Land Type* N/A
Casing, Sizes, Types & Depths 24' OF STEEL PIPE, 10' PLASTIC PIPE
If Casing is cemented, show amounts & types used N/A
If Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A
Depths & thickness of water zones with description of water when possible:
Fresh, Clear, Salty, Sulphur, Etc. 170'
Depths gas encountered: N/A
Type & amount of coke breeze used: 5000 lbs.
Depths anodes placed: 320', 310', 300', 285', 275', 265', 255', 245', 145', 135'
Depths vent pipes placed: N/A
Vent pipe perforations: 200' MAY 31 1991.
Remarks: gb #1
Oll 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.

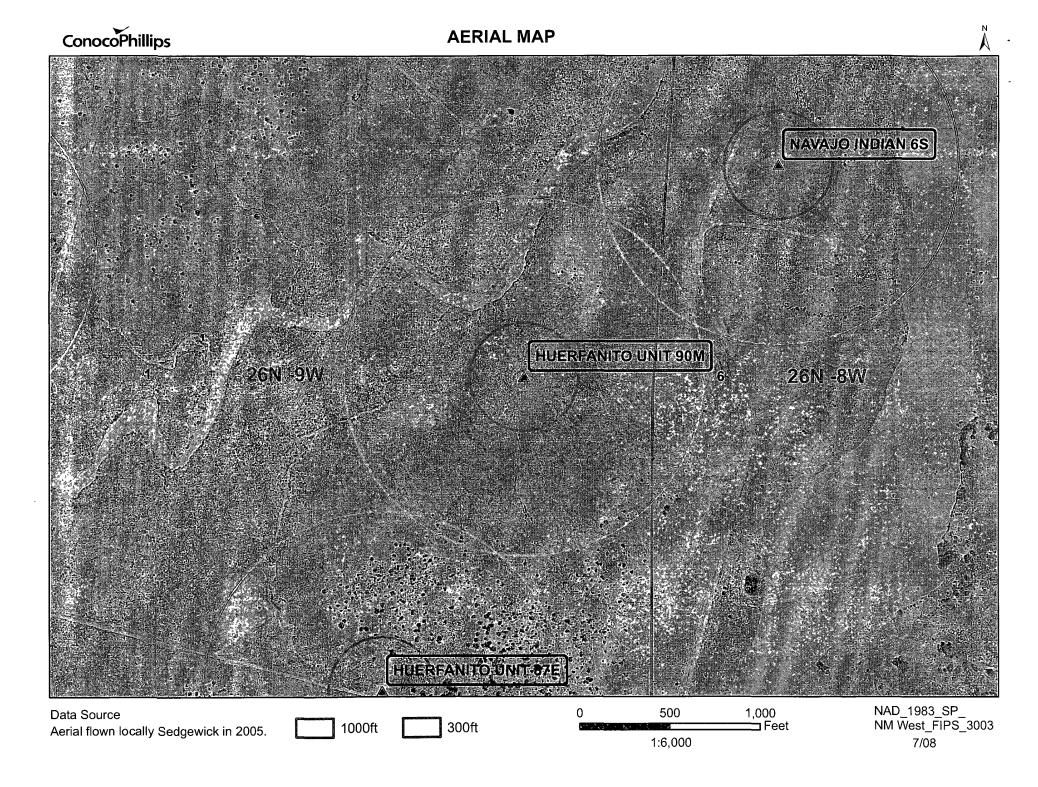
NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico

REQUEST FOR (CMs) - (GAS) ALLOWABLE

New Well

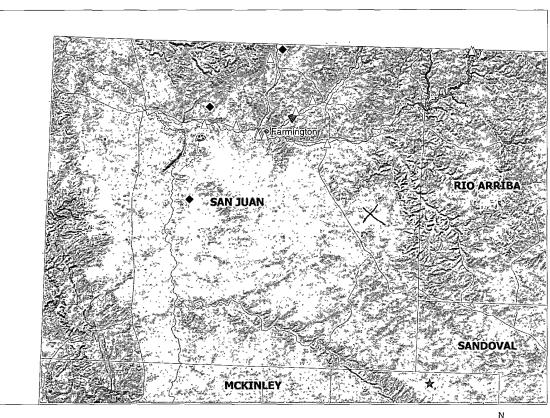
This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion 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 April 5, 1956
.				(Place) (Date)
E ARE I	HEREBY F	REQUESTII	NG AN ALLOWABLE Huerfanito	FOR A WELL KNOWN AS: Unit
nit A	mpany or O	perator)	26-N 95	Unit NE NE NE NE 1/4. Well No. , in NE 1/4. Ballard P. C. Pool
(Unit)	1			and the second s
ian Jua	a		County. Date Spudde	Feb. 10, 1956 Mar. 23, 1956
Pleas	e indicate	location:		
		I	Elevation	19 Total Depth P.B -
			Top oil/gas pay	1899 Pictured Cliffs Name of Prod. Form
			Casing Perforation	ons: None or
			Depth to Casing s	shoe of Prod. String
			Natural Prod. Tes	BOPD
			based on	bbls. Oil in
	·····	***************************************	Test after acid or	shotBOPD
Casing Size	and Comen Feet	ting Record Sax	Based on	bbls. Oil in
8-5/8"	90	70	Gas Well Potentia	al hith MCF/Day
5-1/2"	1896	100	Size choke in inch	hes .75 test nipple Shut in fer petential
1" Tubing	10).2	None	Date first oil run t	to tanks or gas to Transmission system: March 23, 1956
TODING	1945	Hille	Transporter taking	g Oil or Gas: El Paso Natural Gas Company
			ke gas from this w	well when connections are completed. APR 6 1955
	y certify th		mation given above is t	
OII	L CONSEI	RVATION	COMMISSION	By Selection (Signature)
:	£111	1/10	which	Title C. Beeson Neal, Agent in Farmington
tle PETF	ROLEUM	ENGINEE	R DIST. NO. 3	Send Communications regarding well to: C. Bee-on Neal
				Name



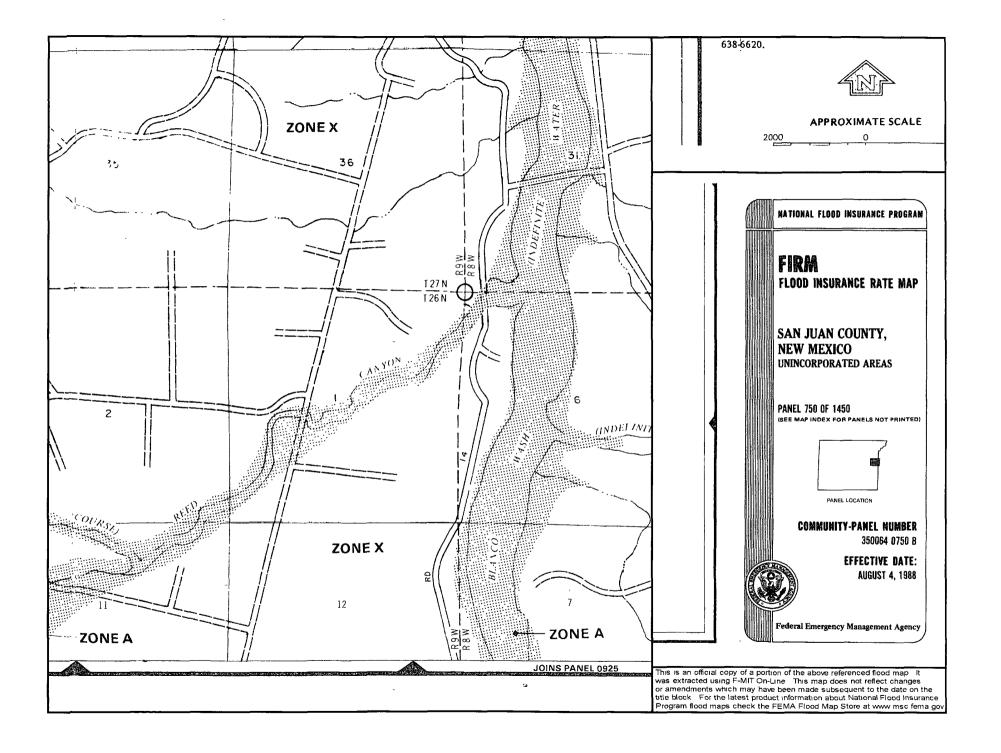
Huerfanito Unit 90M Mines, Mills and Quarries Web Map

Mines, Mills	& Quarries Commodity Groups
Δ	Aggregate & Stone Mines
•	Coal Mines
*	Industrial Minerals Mines
₩	Industrial Minerals Mills
	Metal Mines and Mill Concentrate
28	Potash Mines & Refineries
2	Smelters & Refinery Ops.
*	Uranium Mines
•	Uranium Mills
Population	
•	Cities - major
Transportation	on
++-	Railways
	Interstate Highways
	Major Roads
	
L	









Hydrogeological Report for Huerfanito Unit #90M

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 90M 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 11 with an elevation of 6119' and groundwater depth of 170'. The subject well has an elevation of 6130' which is greater than the Huerfanito Unit 11, 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

OIL CONS. DIV.

DISTRICT 1 1925 H French Dr., Hobbs, N.M. 88240

DISTRICT II 1301 W Grand Ave, Artesia, N.M. 38210

DISTRICT III 1000 Rio Brozos Rd., Aztec, N.M. 87410

DISTRICT IV 1720 South St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Or. Santa Fe, NM 87505 Submit to Appropriate District Office
State Lease 4 Copies
Full Lease 5 Copies

210 FAMENDED-REPORT

	WELL LO	OCATION AND	ACREAGE DED	ICATION PLA	A I	`	
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NO ALLOWABLE	WILL BE ASSIGNED OR A NON-STA		ETION UNTIL ALL			DNSOLIDATED	
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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	√56 Q
Chlorides	EPA 300.1	1000/\$00

- 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

50 percent

Germination

40 percent

Percent PLS

20 percent

He basis of FLS as follows.

Source No. two (better quality)

Purity

80 percent

Germination

63 percent

Percent PLS

50 percent

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.