District I 4 16 N French Di , Hobbs, NM 88240

State of New Mexico Energy Minerals and Natural Resources Form C-144 July 21, 2008

District III
1301 W Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd , Aztec, NM 87410

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

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 appropriate NMOCD District Office.

District IV	
1220 S St Francis Dr , Santa Fe, NM	87505
21,000	Pit, Closed-Loop System
31022	Duamagad Altamativa Mathad I

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 or the environment. Not does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538 Address: PO Box 4289, Farmington, NM 87499
Facility or well name: Canyon Largo Unit 297E API Number: 30-039-30427 OCD Permit Number: U/L or Qtr/Qtr: P(SE/SE) Section: 13 Township: 24N Range: 6W County: Rio Arriba Center of Proposed Design: Latitude: 36.307398 °N Longitude: 107.413578 °W NAD: 1927 1983 Surface Owner: X Federal State Private Tribal Trust or Indian Allotment
2
Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) Drying Pad Above Ground Steel Tanks Haul-off Bins Other Lined Unlined Liner type: Thickness mil LLDPE HDPE PVD Other
Below-grade tank: Subsection I of 19.15.17.11 NMAC Volume: bbl Type of fluid: Oil CONS. DIV. DIST. 3 Tank Construction material: 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 required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19 15 17 11 NMAC (Applies to permanent 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.						
[2] Mentale. A come open, and a company of the comp						
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)						
Signs: Subsection C of 19.15.17.11 NMAC 12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers X 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 cons (Fencing/BGT Liner)	ideration of ap	proval.				
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. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes	□No				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes	□No				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes	No				
(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. 						
(Applied to permanent pits)	☐ Yes ☐ NA	∐No				
 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				
- 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 - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes	No				
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes	□No				
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD - Mining and Mineral Division	Yes	No				
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes	No				
Within a 100-year floodplain - FEMA map						

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
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 of 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
Cosale Fian - based upon the appropriate requirements of Subsection Col 15 15.17.7 NVIAC and 17.15.17.15 NVIAC
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 1 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

Wests Demonst Classus For Classed Ion Systems That Hilling About Cround Steel Tonle or Houle of District	Obu (10.15.17.12.D.NIMAC)				
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bir Instructions Please identify the facilities for the disposal of liquids, drilling fluids and drill cuttings are required					
Disposal Facility Name Disposal Facility Peri	mit #				
Disposal Facility Name. Disposal Facility Peri	ant #-	}			
Will any of the proposed closed-loop system operations and associated activities occur on or in areas to Yes (If yes, please provide the information No	that will not be used for future service and open	ations?			
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 Sul Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17.13 No. Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17	NMAC				
17					
Siting Criteria (Regarding on-site closure methods only: 19.15.17.10 NMAC Instructions Each stiting criteria requires a demonstration of compliance in the closure plan. Recommendations of accept certain siting criteria may require administrative approval from the appropriate district office or may be considered an exfor consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17	ception which must be submitted to the Santa Fe Environ				
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	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
Ground water is between 50 and 100 feet below the bottom of the buried waste	Yes	X No			
- NM Office of the State Engineer - tWATERS database search; USGS; Data obtained from nearby wells	N/A				
Ground water is more than 100 feet below the bottom of the buried waste.	XYes	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 lakely (measured from the ordinary high-water mark).	bed, sinkhole, or playa lake	XNo			
- Topographic map; Visual inspection (certification) of the proposed site	<u> </u>	_			
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of it - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	nitial application. Yes	X No			
	Yes	X No			
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for purposes, or within 1000 horizontal fee of any other fresh water well or spring, in existence at the time of the in - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed si	nitial application.				
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a pursuant to NMSA 1978, Section 3-27-3, as amended.		XNo			
 Written confirmation or verification from the municipality, Written approval obtained from the municipal Within 500 feet of a wetland 	TYes	X No			
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of t	ll	11.10			
Within the area overlying a subsurface mine	Yes	XNo			
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division	ļ _—				
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources, USGS;		X No			
Topographic map Within a 100-year floodplain.	Yes	XNo			
- FEMA map					
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items by a check mark in the box, that the documents are attached.	s must bee attached to the closure plan. Pleas	e indicate,			
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.1	5.17.10 NMAC				
Troof 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 requirer	ments of 19 15.17.11 NMAC				
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon t	the appropriate requirements of 19.15 17.11 NM	ИAC			
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 Subs					
X Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 1					
 Disposal Factlity Name and Permit Number (for liquids, drilling fluids and drill cuttings or in Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 		ed)			
X Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13					
X Site Peoplemation Plan - based upon the appropriate requirements of Subsection C of 10.15.17.13 NMAC					

,19	G. Hir. H		
Operator Application	n Certification: information submitted with this application is true, ac	counte and complete to the	b hest of my knowledge and helpf
Name (Print):	Tamia Sessions	Title:	Staff Regulatory Technician
Signature	Tambours	Date:	6-3-09
	sessitd@conocophillips.com	Telephone	505-326-9834
e-mail address:	<u>sessita в сопосортнира.com</u>	reconone	303-320-7634
20			
OCD Approval:	Permit Application (including closure plan)	Closure Plan (only)	OCD Conditions (see attachment)
OCD Representative	Signature:		Approval Date: 7-2-09
TPMAL	Enviro/Spec	OCD P	mit Number:
Title:	Livino 15 pec	OCD Peri	mit Number:
Instructions: Operators report is required to be .		or to implementing any clos etion of the closure activiti n completed	C cure activities and submitting the closure report. The closure es. Please do not complete this section of the form until an ce Completion Date:
		.	
22 Closure Method:			
Waste Excavation	on and Removal On-site Closure Method	Alternative Closure	e Method Waste Removal (Closed-loop systems only)
If different from	approved plan, please explain.		
23		·	
	ding Waste Removal Closure For Closed-loop Systems		
Instructions: Please ide were utilized.	entify the facility or facilities for where the liquids, d	rilling fluids and drill cuti	ings were disposed. Use attachment if more than two facilities
Disposal Facility Na	me	Disposal Facilit	y Permit Number
Disposal Facility Na	me:	Disposal Facilit	y Permit Number:
-	system operations and associated activities performed		of be used for future service and opeartions?
Yes (If yes, plea	se demonstrate complilane to the items below)	∐No	•
. —	ed areas which will not be used for future service and n (Photo Documentation)	l operations	
	and Cover Installation		
Re-vegetation A	pplication Rates and Seeding Technique		
24			
		following items must be att	ached to the closure report. Please indicate, by a check mark in
l — ´	ruments are attached. re Notice (surface owner and division)		•
<u> </u>	Notice (required for on-site closure)		•
	on-site closures and temporary pits)		
	Sampling Analytical Results (if applicable)		
	Sampling Analytical Results (if applicable)		
<u> </u>	ity Name and Permit Number		
l 🛏 :	g and Cover Installation		
Re-vegetation	Application Rates and Seeding Technique		
Site Reclamati	on (Photo Documentation)		
On-site Closur	e Location Latitude.	Longitude:	NAD
L			
25 Operator Closure Co	ertification:	,	
	information and attachments submitted with this clos th all applicable closure requirements and conditions		e and complete to the best of my knowledge and belief. I also certify that closure plan.
Name (Print)	•	Title:	
Signature.		Date:	•
e-mail address		Telephone:	



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

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

		(quarte	ers a	re s	ma	llest	to larg	est)	(NAD83 UTI	√ in meters)		(In feet)
그 나쁜 사이 나는 그들도 그렇게 가장 사고 있었다.	Sub basin Use C	The second second	ĈQ; ∵€∧	1	Q	Soc	Twe	Prio	n na Takin		Depth D	epth V	Vater
15 OD HUILIDE	Dasin Jose. C	Ounty		1.0	77.4	OEL.	1,443	IIXII9.		<u>. • ئاداھ اس مار ادر</u> ہے۔ -	, VACILIA	ratero	Orumni
SJ 00068	DOM	RA	1	2	4	18	24N	05W	284837	4021202*	789	223	566
SJ 00069	IND	RA	1	2	4	18	24N	05W	284837	4021202*	795	350	445
SJ 00074	IND	RA	2	3	3	18	24N	05W	283811	4020835*	1004	216	788
SJ 00211	IND	RA	4	4	4	18	24N	05W	285025	4020601*	800	240	560
									Ave	rage Depth t	o Water:	257 f€	et
										Minimur	n Depth:	216 fe	et
										Maximur	n Depth:	350 fe	et

Record Count: 4

PLSS Search:

Section(s): 7, 18, 19

Township: 24N

Range: 05W

*UTM location was derived from PLSS - see Help

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



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

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

(quarters are smallest to largest) (NAD83 UTM in meters)

s) (In feet)

Sub Q Q Q

POD Number Dasin, Use County 64 16 4 Sec Tws Rng X Y Well Water Column

SJ 00681 14

IRR RA

3 4 24 24N 06W

82864 4019157*

127

Average Depth to Water: null feet

Minimum Depth: null feet

Maximum Depth: null feet

Record Count: 1

PLSS Search:

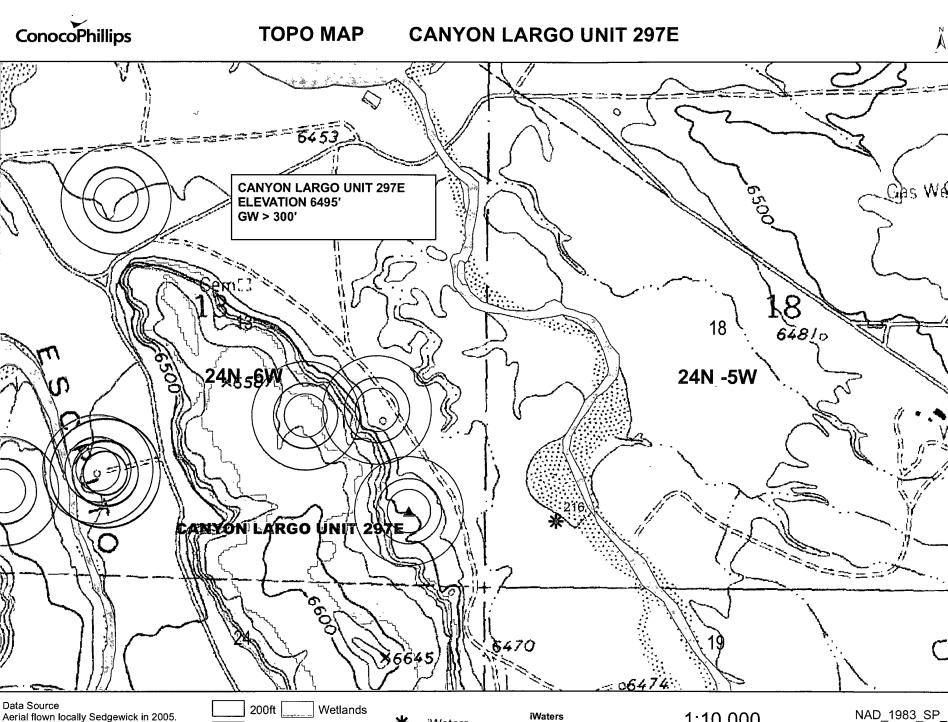
Section(s): 11, 12, 13, 14,

23, 24

Township: 24N

Range: 06W

*UTM location was derived from PLSS - see Help



Data Source Aerial flown locally Sedgewick in 2005. Wetlands Data Aquired from U.S. Fish 1:10,000 **iWaters** NM West_FIPS_ 300ft X SEC and Wildlife Http://wetlandswms.er.usgs.gov QTR-QTR 3003 0 250 500 1,000 COP USGS Topo 500ft X QTR-QTR-QTR □ Feet June 1, 2009

TIERRA CORROSION CONTROL, IN4 <u>DRILLING LOG</u>

DATE: February 23, 2009

COMPANY: Conoco Phillips

LOCATION: Canyon Largo 297E ✓

LEGALS: S13 T24N R6W COUNTY: Rio Arriba

STATE: NM

DRILLER: Mike Morrow

BIT SIZE: 7 7/8"

CASING SIZE/TYPE: 20' X 8" PVC

DEPTH: 300'

VENT PIPE: 160' 1" PVC PERF PIPE: 140' 1" PVC ANODE AMOUNT: 10

ANODE TYPE: 2" X 60" Duriron LBS COKE BACKFILL: 2,500#

COKE TYPE: Asbury BOULDER DRILLING:

DEPTH	DRILLER'S LOG	AMPS	DEPTH	DRILLER'S LOG	AMP
20	Loose Sand		310		
25			315		
30			320		
35			325		
40			330		
45		1	335		
50			340		
55			345		
60		1	350		-
65		ſ	355		
70			360		1
75	-		365		
80	Shale		370		
85		-	375		
90			380		†
95		<u> </u>	385		
100		 	390		
105			395		+
110		 	400		
115			405		
120			410		
125			415		+
130		-	420		
135			425		
140		 			
		<u> </u>	430		
145		10	435		
150		4.0			
155		4.0	445		
160		3.5	450		
165		3.1	455		ļ
170		4.0	460		ļ
175		4.1	465		
180		4.04	470		<u> </u>
185		3.5	475		
190		3.2	480		
195		3.3	485		
200		5.1	490	······································	
205		4.0	495		
210		4.5	500		ļ
215		3.2			
220		3.9			_
225		3.5			
230		2.5			
235		4.0			
240		4.1			
245		4.1			
250		4.3	i i]
255		40			
260		42			
265		3.9			
270		3.3			
275		3.6			1
280		3.6	 		
285		3.4			+
290		3.5	 - 		+
295		3.2	1		
300		3.2	 		-
	▼	1			1

ANODE #	DEPTH	NO COKE	COKE
1	290	3.5	4.9
2	280	3.6	6.6
3	270	3.3	7.1
4	260	4.2	9.6
5	250	4.3	10.8
6	240	4.1	10.6
7	230	2.5	9.4
8	220	3.9	10.1
9	210	4.5	9.9
10	200	5.1	9.5
11			
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30			

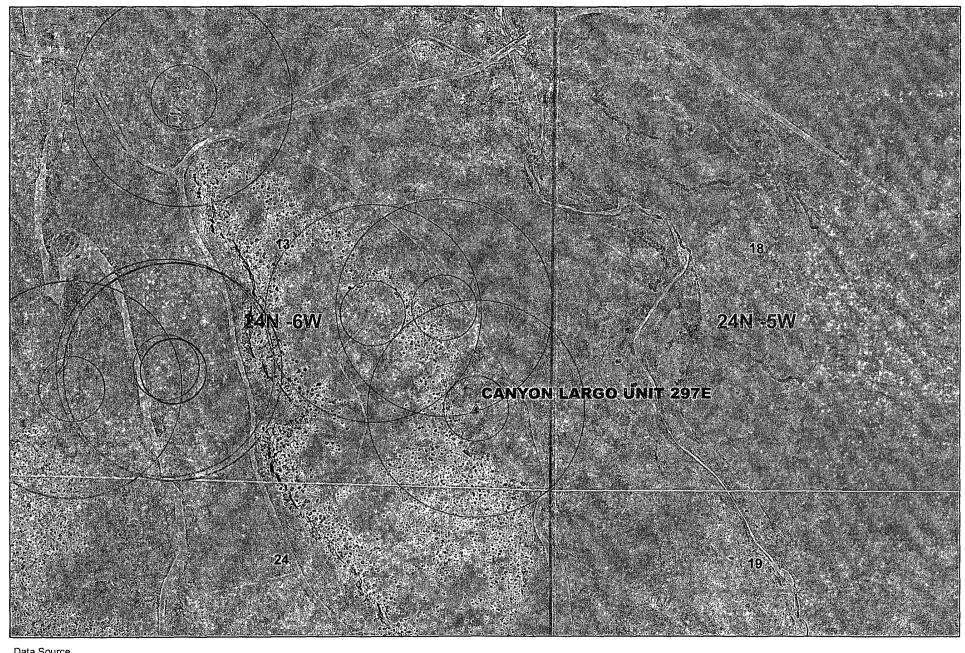
WATER: DEPTH: NONE VISOLATION PLUGS: LOGING VOLTS: 12.4

VOLT SOURCE: AUTO BATTERY

TOTAL AMPS: 24.9

TOTAL GB RESISTANCE: .49

REMARKS:



Data Source Aerial flown locally Sedgewick in 2005. Wetlands Data Aquired from U.S. Fish and Wildlife Http://wetlandswms er.usgs.gov USGS Topo

300ft City Limits

1:10,000

1,000

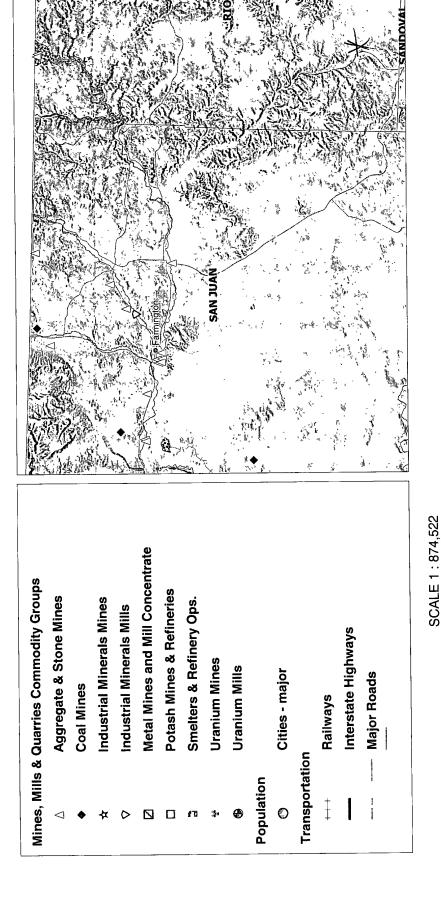
⊐ Feet

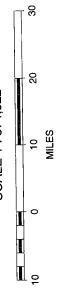
0 250 500

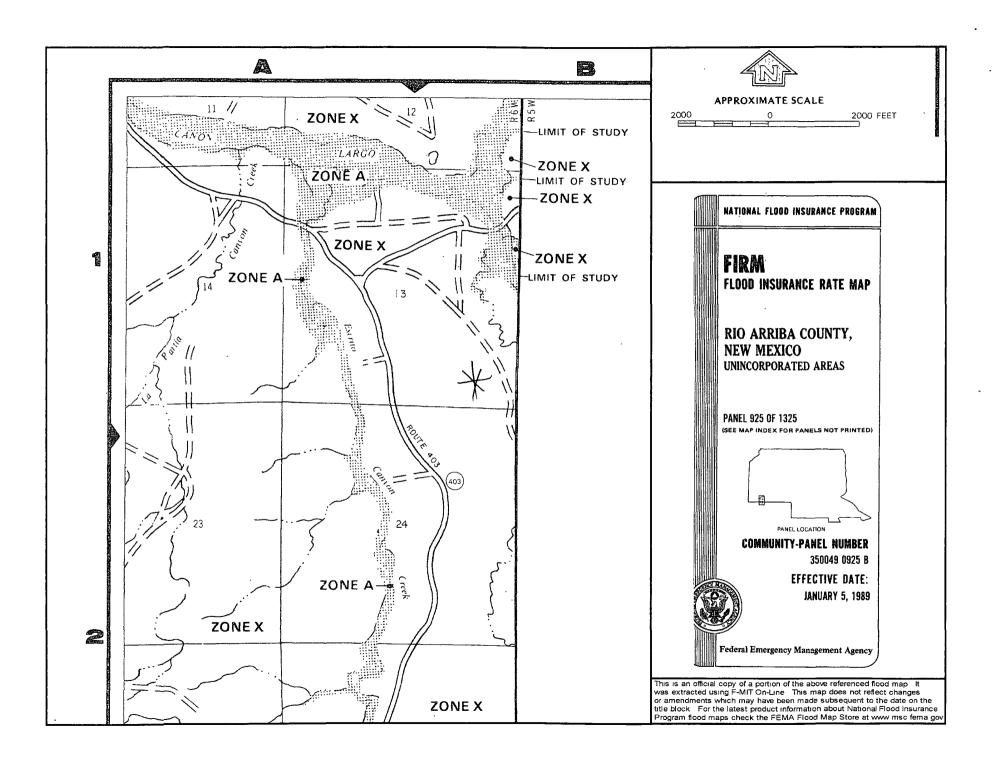
NAD_1983_SP_ NM West_FIPS_ 3003

June 1, 2009

CANYON LARGO UNIT 297E Mines, Mills & Quarries







Siting Criteria Compliance Demonstration & Hydro Geologic Analysis

The Canyon Largo Unit 297E 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 Cathodic well data from the subject well has an elevation of 6495' with no groundwater found to the depth of 300', therefore the groundwater depth is greater than 300'. There are iWATERS data points located in the area as indicated on the TOPO Map. The hydro geologic analysis indicates the groundwater depth and the San Jose formation will create a stable area for this new location.

Hydrogeological report for Canyon Largo Unit 297E

Regional Hydrogeological context:

The San Jose Formation of Eocene age occurs in New Mexico and Colorado, and its outcrop forms the land surface over much of the eastern half of the central basin. It overlies the Nacimiento Formation in the area generally south of the Colorado-New Mexico State line and overlies the Animas Formation in the area generally north of the State line.

The San Jose Formation was deposited in various fluvial-type environments. In general, the unit consists of an interbedded sequence of sandstone, siltstone, and variegated shale. Thickness of the San Jose Formation generally increases from west to east (200 feet in the west and south to almost 2,700 feet in the center of the structural basin). Ground water is associated with alluvial and fluvial sandstone aquifers. Thus, the occurrence of ground water is mainly controlled by the distribution of sandstone in the formation. The distribution of such sandstone is the result of original depositional extent plus any post-depositional modifications, namely erosion and structural deformation. Transmissivity data for San Jose Formation are minimal. Values of 40 and 120 feet squared per day were determined from two aquifer tests (Stone et al, 1983, table 5). The reported or measured discharge from 46 water wells completed in San Jose Formation ranges from 0.15 to 61 gallons per minute and the median is 5 gallons per minute. Most of the wells provide water for livestock and domestic use.

The San Jose Formation is a very suitable unit for recharge from precipitation because soils that form on the unit are sandy and highly permeable and therefore readily adsorb precipitation. However, low annual precipitation, relatively high transpiration and evaporation rates, and deep dissection of the San Jose Formation by the San Juan River and its tributaries all tend to reduce the effective recharge to the unit.

Stone et al., 1983, Hydrogeology and Water Resources of the San Juan Basin, New Mexico: Socorro, New Mexico Bureau of Mines and Mineral Resources Hydrologic Report 6, 70 p.

Sessions, Tamra D

From:

Sessions, Tamra D

Sent:

Wednesday, June 03, 2009 5:16 PM

To: Subject: 'mark_kelly@nm.blm.gov' Surface Owner Notification

The following wells have a temporary pit that will be closed on-site. Please let me know if you have any questions.

Canyon Largo Unit 297E San Juan 28-6 Unit 113N

Thank you,

Tamra Sessions
Staff Regulatory Technician
CONOCOPHILLIPS COMPANY / SJBU
505-326-9834
Tamra.D.Sessions@conocophillips.com

District I
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 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 7 Copies Fee Lease - 3 Copies

☐ AMMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

l A	Pl Number		. 2	Pool Code			. 0. /	ool Name N DAKOTA	* *
⁴ Property Cod	ie					rty Name LARGO UNIT			Well Number 297E
⁷ OGŖID Ņo	0.		BURL	INĢTÓN		tor Name S OIL AND GAS C	COMPANY LP		⁹ Elevation 6495
					IO SURFACI	LOCATION			
UL or lot no.	Section 13	Township 24-N	Runge 6-W	Lot Idn	Feet from the 675	Nàrth/Sòuth line SOUTH	Feet from the 720	East/West line:	County RIO ARRIBA
			¹¹ B	ottom H	ole Location	If 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
Dedicated Acres	Joint	or Infill	Consolidation	Code 15	Order No.	<u> </u>	<u>* </u>	<u> Chianga Canada an an</u>	<u> </u>

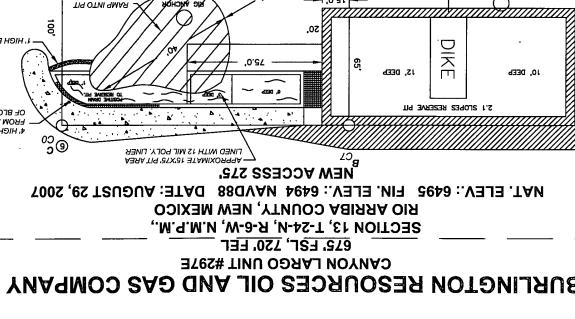
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

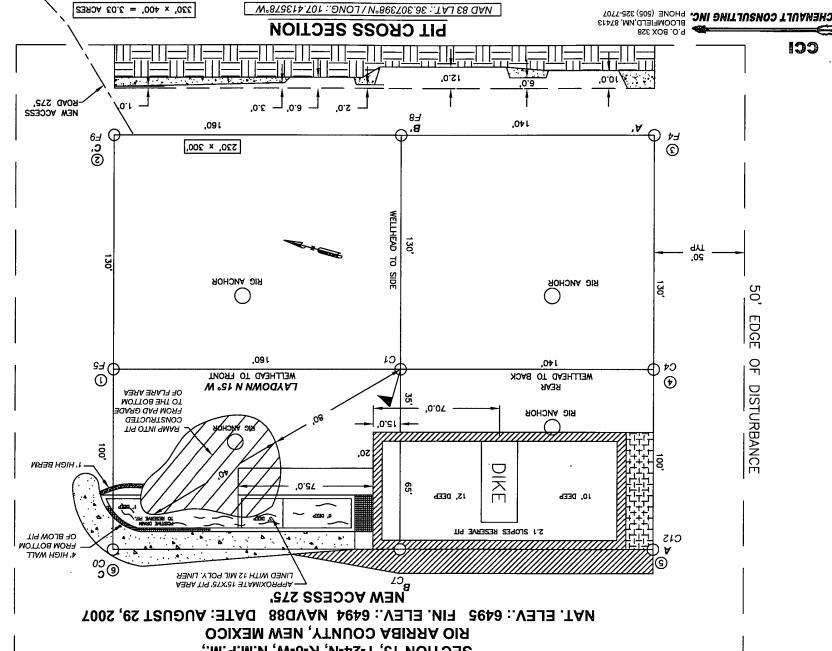
) . 1983	5269:4' (M)	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either awas a working interest or unleasted mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location prinsipal to a contract with an owner of such a mineral or working interest, or to a winntary pointing agreement or a compulsory pooling order heretofore entered by the division.
	E/2 DEDICATE USA SF SECTIO T-24-N,	-080594 ON 13		Signature Printed Name Title and E-mail Address Date 18 SURVEYOR CERTIFICATION
	 WELL FLA NAD LAT: 36.307398' LONG: 107.413578'	83 'N W		I hereby certify that the well location shows on this plat was plotted from feild 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. Date of Survey. 8/29/07 Signature and Seal-of Professional Surveyor.
и <u>ў</u> а.её, м	NAD- LAT:36°18,443155 LONG: 107°24.778534' 5259.5'	720' 3	N 0.28 E N 0.1508	Certificate Number: NM 11393

NOTES:

RESERVE

BURLINGTON RESOURCES OIL AND GAS COMPANY LP





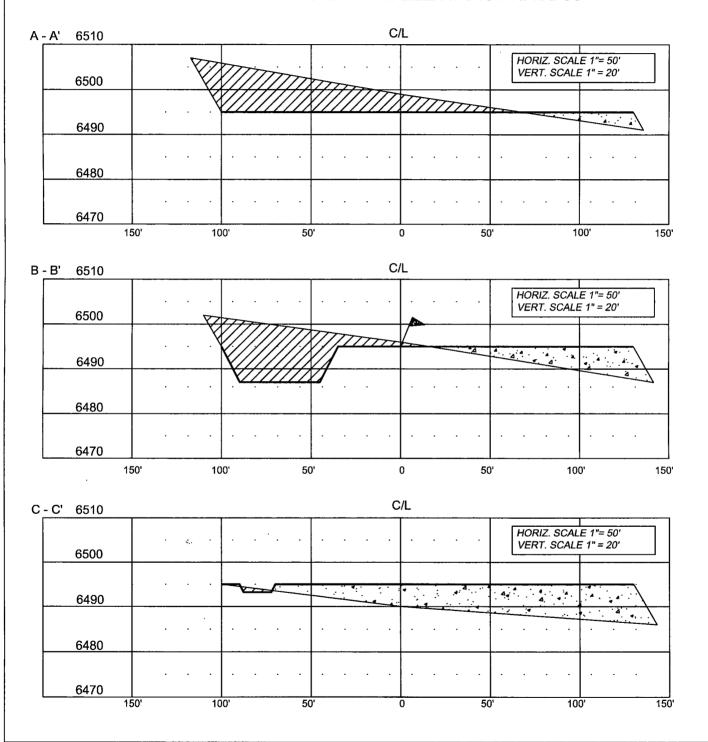
BURLINGTON RESOURCES OIL AND GAS COMPANY LP

CANYON LARGO UNIT #297E 675' FSL. 720' FEL

675' FSL, 720' FEL SECTION 13, T-24-N, R-6-W, N.M.P.M.,

RIO ARRIBA COUNTY, NEW MEXICO

NAT. ELEV.: 6495 FIN. ELEV.: 6494 NAVD88



REVISIONS

REVISED BY

TJR

DATE

8/29/07

DESCRIPTION

ISSUED FOR REVIEW

NO

1

P.O. BOX 328 BLOOMFIELD,NM, 87413 PHONE. (505) 325-7707

CHENAULT CONSULTING INC.

CCI

NOTE CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR

CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO

OR PIPELINES.

CONSTRUCTION.

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. One (poor quality)

Purity

Source No. two (better quality)

Purity

Source No. two (better quality)

Purity

80 percent

Germination

Germination

Germination

Germination

Fercent PLS

Source No. two (better quality)

Purity

80 percent

Percent PLS

So 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.