District 1

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

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

Form C-144

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.

#### Pit, Closed-Loop System, Below-Grade Tank, or 1846 Proposed Alternative Method Permit or Closure Plan Application Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances Operator: Burlington Resources Oil & Gas Company, LP OGRID#: 14538 Address: PO Box 4289, Farmington, NM 87499 Facility or well name: Harrington 9M 30-039-30396 API Number: OCD Permit Number. A(NENE) Section: U/L or Otr/Qtr: 31 Township: 27N Range: County: Rio Arriba Longitude: Center of Proposed Design: Latitude: 36.534840' N 107.610333' W NAD: 1927 X 1983 Surface Owner: X Federal State Private Tribal Trust or Indian Allotment X Pit: Subsection F or G of 19.15.17.11 NMAC X Drilling Workover Temporary: Permanent Emergency Cavitation P&A X Lined X LLDPE HDPE PVC Other Unlined Thickness 20 mil Liner type: X String-Reinforced X Welded X Liner Seams: Factory Other Volume: 4400 bbl Dimensions L 65' x W 45' Closed-loop System: Subsection H of 19.15.17 11 NMAC Type of Operation: Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) Above Ground Steel Tanks Haul-off Bins Unlined LLDPE HDPE PVD Other Lined Liner type. Thickness mil Liner Seams. Welded Factory Other Below-grade tank: Subsection I of 19.15.17.11 NMAC OIL CONS. DIV. DIS Volume: bbl Type of fluid Tank Construction material. Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off Secondary containment with leak detection Visible sidewalls and liner Visible sidewalls only Other HDPE Other Liner Type Thickness 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, inst  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.	tiution or chur	ch)
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)		
Signs: Subsection C of 19.15 17.11 NMAC  12" X 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed in compliance with 19.15.3.103 NMAC		
Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15 17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Administrative approval(s) Requests must be submitted to the appropriate division district of the Santa Fe Environmental Bureau office for consideration of approval  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration 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	XNo
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	□NA	
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
12
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
Hydrogeologic Report - based upon the requirements of Paragraph (I) of Subsection B of 19 15.17.9 NMAC
Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
Climatological Factors Assessment
Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17 11 NMAC  Dike Protection and Structural Integrity Design: based upon the appropriate requirements of 19.15.17.11 NMAC
Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
Quality Control/Quality Assurance Construction and Installation Plan
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15 17.12 NMAC
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
Nuisance or Hazardous Odors, including H2S, Prevention Plan
Emergency Response Plan
Oil Field Waste Stream Characterization
Monitoring and Inspection Plan
Erosion Control Plan
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15 17.13 NMAC
Closure i initi dasce aport die appropriate requirements of dassection e of 17.15.17.7 Harrie and 17.15 17.15 Harrie
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.
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
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16									
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17 Instructions. Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings — Use attachment is	7.13.D NMAC) f more than two facilities								
are required.  Disposal Facility Nama									
Disposal Facility Name. Disposal Facility Permit #  Disposal Facility Name Disposal Facility Permit #									
Disposal Facility Name Disposal Facility Permit #									
Yes (If yes, please provide the information No									
Required for impacted areas which will not be used for future service and operations  Soil Backfill and Cover Design Specification - based upon the appropriate requirements of Subsection H of 19.  Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC	.15.17 13 NMAC								
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC									
17 Siting Criteria (Regarding on-site closure methods only: 19.15 17 10 NMAC									
Instructions Each siting criteria requires a demonstration of compliance in the closure plan—Recommendations of acceptable source material certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must for consideration of approval—Justifications and/or demonstrations of equivalency are required—Please refer to 19 15.17.10 NMAC for guidal-	be submitted to the Santa Fe Environmental Bureau office								
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 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 more than 100 feet below the bottom of the buried waste.	X Yes No								
- NM Office of the State Engineer - (WATERS database search; USGS; Data obtained from nearby wells	□N/A								
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or pl (measured from the ordinary high-water mark).	laya lake Yes X No								
- Topographic map; Visual inspection (certification) of the proposed site	Vos. VINO								
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  - Visual inspection (certification) of the proposed site; Aerial photo; satellite image	Yes XNo  Yes XNo								
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stoc 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	k watering								
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinar pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approval obtained from the municipality	nce adopted Yes X No								
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes X No								
Within the area overlying a subsurface mine.	Yes X No								
- Written confirantion or verification or map from the NM EMNRD-Mining and Mineral Division  Within an unstable area.	Yes X No								
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological S Topographic map									
Within a 100-year floodplain FEMA map	Yes XNo								
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attack by a check mark in the box, that the documents are attached.	hed to the closure plan. Please indicate,								
X Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17 10 NMAC									
X Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NM.	AC								
Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17	7 11 NMAC								
Construction/Design Plan of Temporary Pit (for in place burial of a drying pad) - based upon the appropriate re	equirements of 19.15.17.11 NMAC								
X   Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC	5 17 12 1111								
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15									
Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMA									
<ul> <li> X  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closs</li> <li> X  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15 17.13 NMAC</li> </ul>	ure standards cannot be achieved)								
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									

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19 <b>Operator Application</b>	Certification:		,
	nformation submitted with this application is true, ac	curate and complete to th	e best of my knowledge and belief.
Name (Print):	Crystal Tafoya	Title:	Regulatory Technician
Signature	Constal Talay	Date:	10/3/08
e-mail address	crystal.tafoya@conocophillips.gom	Telephone:	505-326-9837
20		7/ (1) 71 (1)	
JCD Approval:	Permit Application (including closure plan)		
OCD Representative	Signature: Brandon	Xanell	Approval Date:
Title: £4:	siro/spec		
Title: LVI	DILOGADEC	OCD Per	mit Number:
Instructions. Operators of report is required to be s		r to implementing any clo ction of the closure activit	AC ssure activities and submutting the closure report. The closure ties. Please do not complete this section of the form until an
···		Closu	re Completion Date:
22			
Closure Method:			
Waste Excavation	n and Removal On-site Closure Method	Alternative Closu	re Method Waste Removal (Closed-loop systems only)
If different from	approved plan, please explain		
3			
	ing Waste Removal Closure For Closed-loop Syste		
nstructions: Please ider vere utilized.	uify the facility or facilities for where the liquids, d	rilling fluids and drill cu	ttings were disposed. Use attachment if more than two facilities
Disposal Facility Nan	ne:	Disposal Facili	ty Permit Number:
Disposal Facility Nan	ne:		ty Permit Number:
	system operations and associated activities performe	ed on or in areas that will	not be used for future service and opeartions?
Yes (If yes, pleas	e demonstrate complilane to the items below)	∐No	
	d areas which will not be used for future service and	operations:	
=	(Photo Documentation) and Cover Installation		
	oplication Rates and Seeding Technique		
	privation rates and occurring recommende		
24 Closure Report At	tachment Checklist: Instructions: Each of the fo	ollowing items must be a	ttached to the closure report. Please indicate, by a check mark in
the box, that the doci		Ü	
	e Notice (surface owner and division)		
=	Notice (required for on-site closure)		
	n-site closures and temporary pits)		
	ampling Analytical Results (if applicable)		
	Sampling Analytical Results (if applicable)		
= '	y Name and Permit Number		
= -	and Cover Installation Application Rates and Seeding Technique		
= 1	on (Photo Documentation)		
On-site Closure	· ·	Longitude:	NAD 1927 1983
25			
Operator Closure Ce	rtification:		
		•	te and complete to the best of my knowledge and belief. I also certify that
ne ctosure complies with	hall applicable closure requirements and conditions	specified in the approved	i closure plan.
Name (Print):		Title.	
Signature:		Date:	
-mail address		Telephone:	

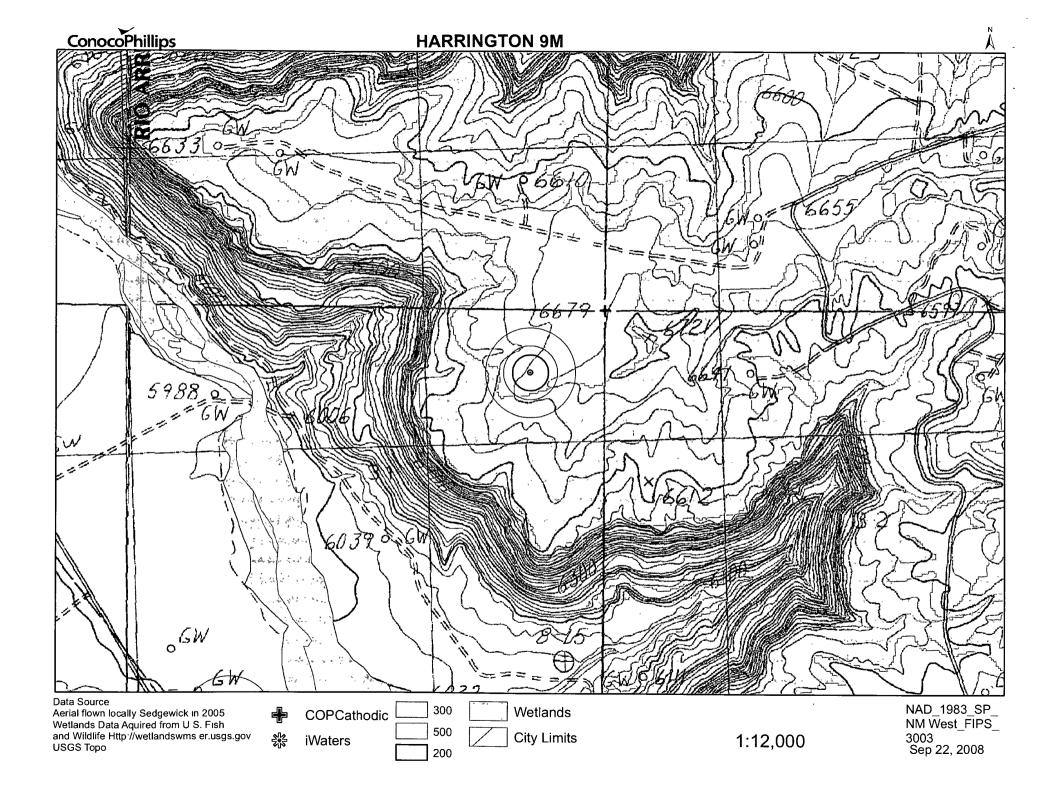
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Owner Name:	(First)			(Last)	)		○Non-D	omestic	O Dome	estic
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	Clear Form iWATERS Menu Help									
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No Records f	ound, tr	ry aga	ain							

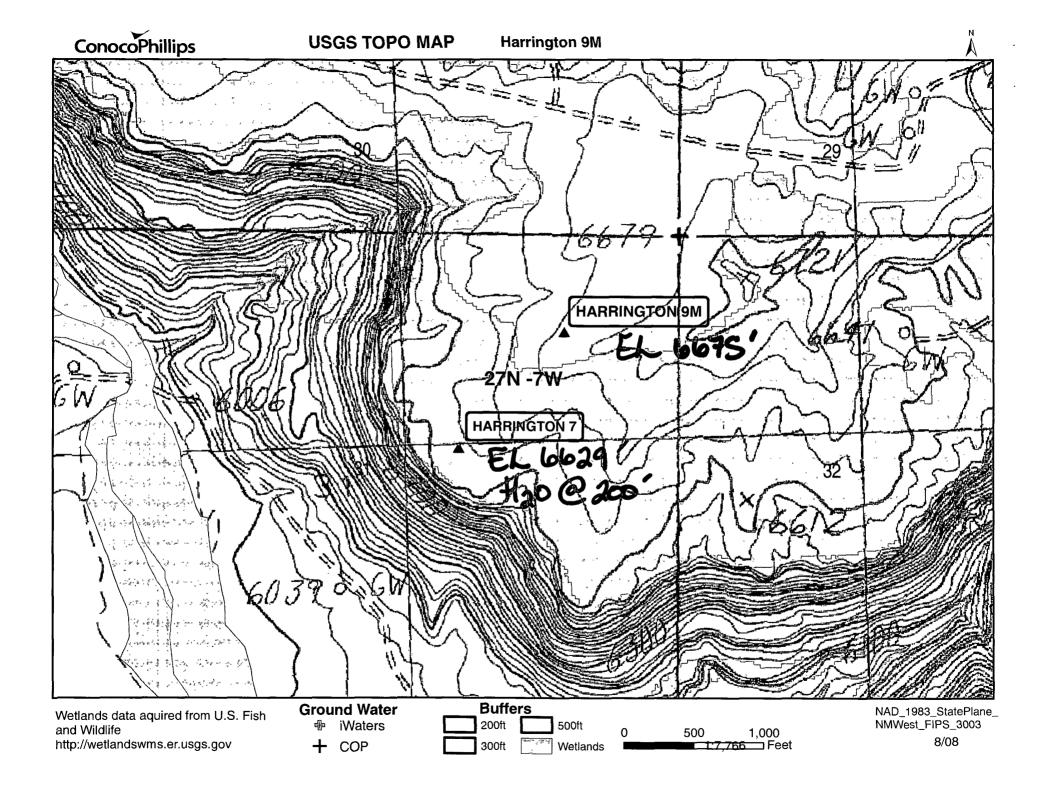
Towns	hip: 27N	Range: 08W	Sections: 1,2	2,11,12			No. pool garage		
NAD27	<b>x</b> :	Y:	Zone:	2	Search Radius:	_			
County:	- 1-2-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	Basin:			Number:	Suffix	x:		
Owner Name: (F	irst)	(L	ast) All	İ	○ Non-Domestic	○ Dome	estic		
POD / Surface Data Report Avg Depth to Water Report  Water Column Report									
Clear Form iWATERS Menu Help									
CONTROL SECTION AND ASSESSMENT OF THE SECTION ASSESSMENT OF THE SECTIO	and a man to a form the second and t	W2	ATER COLUMN R	EPORT 1	L0/01/2008	erross data en reger de reger da esta en actividad da de la composition della compos	Service de la company de la co		
POD Number	(quarters		=NE 3=SW 4=SE to smallest q Zone	-	Depth Y Well	Depth Water	Wate Colum		
No Records found	d, try aga	in							

Township:	26N Range: 08W	Sections: 6,5							
NAD27 X:	Y:	Zone:	Sea	rch Radius:	-				
County:	Basin:	· 1	Nu	mber:	Suffix:				
Owner Name: (First)	(La	ast) ⊚All	ON	on-Domestic	ODomestic				
POD / Surface Data Report Avg Depth to Water Report  Water Column Report									
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· <del>-</del>	larters are 1=NW 2= Larters are biggest Tws Rng Sec q q	to smallest)	x	Depth Y Well	Depth Wate Water Colum				

No Records found, try again

Township: 26N Range: 07W Se	ections: 1,2		
NAD27 X: Y:	Zone:	Search Radius:	
County: Basin:		Number:	Suffix:
Owner Name: (First) (Last)	 <b>⊚</b> All	○ Non-Domestic	O Domestic
POD / Surface Data Report Water Co	Avg Depth	to Water Report	.]
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Quarters are 1=NW 2=NE (quarters are biggest to POD Number       Tws Rng Sec q q q         SJ 02409       26N 07W 01 1 2 2	<del>-</del>	Depth Y Well 700	Depth Wate Water Colum 400 3(





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

30-039-23792 (Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL INC.	Location:	Unit G	Sec. 31	Twp <sup>27</sup>	Rng 7
Name of Well/Wells or Pipeline Servi	cedHARR	INGTON #7	7		
					cps 2009
Elevation6629' Completion Date 10/7/88	Total Der	oth 520'	Land	Type*	N/A
Casing, Sizes, Types & Depths					
If Casing is cemented, show amounts	& types use	edN/	A		
If Cement or Bentonite Plugs have be	en placed,	show de	epths &	amoun	ts used
Depths & thickness of water zones wi	th descript	ion of	water v	when p	ossible:
Fresh, Clear, Salty, Sulphur, Etc.	DAMP 100	' - 200'	NO WAT	ER	
Depths gas encountered: N/A					
Type & amount of coke breeze used:	N/A			······································	
Depths anodes placed: 475', 468', 461',	454', 448', 4	441', 435	365',	340',	330'
Depths vent pipes placed: 510'					
Vent pipe perforations: 400'		AR	YEM		
Remarks: (gb #1	M	AV31, 196			
	OIL (	EON.	DIV		
		YIN'S	- • •,		

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

<sup>\*</sup>Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee. If Federal or Indian, add Lease Number.

# MERIDIAN OIL INC. WELL CASING: CATHODIC PROTECTION CONSTRUCTION REPORT DAILY LOG

agrip 10 Miles

lling Log_(Attach He	reso)					a <del>=</del>	C	Completion [	Date_10/7	188
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CHILL DIEC.	E. 6.	G.B. 7	A. 769	0.0	 5			All Constr	uction Complet	ed
ldn'l Depth :pth Credit: :tra Cable:		1851,25		,, 25			,	10 1	eu-	
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Q Crass Drilling Co.

		DRILLER'S WELL LOG
S. P. No.	Harri	Nexton #7 Date 10-7-88
		Dil Co. Prospect
		TUAN State NEW Mex.
If hole is	a redrill or	if moved from original staked position show distance
		i:
and direc	non moved	1.
FROM	TO	FORMATION — COLOR — HARDNESS
0	220	SANdstone.
220	240	SANGU Shale
240	260	Shale
260	270	SANdstone
270	290	Shale
290	1.7	SANdstone
325	335	shile
335	450	
450	480	Shale
480	520	SANdSTANE
,		
<del></del>	<del></del>	
Mud		Brom Lime
Rock Bit 1	Number	Make
Remarks:		
		Mor Louvie Brown

Form 3160-4 Form approved. Budget Bureau No. 1004-0137 (November 1983) SUBMIT IN DUPLICATE. UNITED STATES Expires August 31, 1985 (formerly 9-330) (Secother be-DEPARTMENT OF THE INTERIOR LEASE DESIGNATION AND SERIAL NO. BUREAU OF LAND MANAGEMENT SF 080511 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG\* In. TYPE OF WELL. **.....** WELL 3 7. UNIT AGREEMENT VAMB Other RECEIVED L TYPE OF COMPLETION DIFF CHANG ..... X DICK [] S LARY OR LEASE DAME 2. NAML OF OPERATOR Harrington kUV 1 3 1985 El Paso Natural Gas Company 9. WELL NO. J. ADDRESS OF OPERATOR DUE OFTAND MANAGEN P. O. Box 4289, Farmington, NM 87499 10. FIELD AND POOL OF WILDCAT 4. LOCATION OF WELL (Report location clearly and in accordance with Blanco Mesa Verde At surface 1490 N. SEL . T. R., M., OR BLOCK AND BURVEY OR AREA 1520'E NOV 15 1985 At top prod. interval reported below Sec. 31, T-27-N, R-7-W OIL CON. DIV. At total depth 14. PERMIT NO 12. COUNTY OR PARISH 13. STATE DIST :- 3 50 Rio Arriba NM 17. DATE COMPL. (Ready to prod ) 15. DATE SPUDDED 16. DATE TO REACHED 18. ELEVATIONS (DF, RKB. RT, GB, ETC.) # | 19. ELEV. CASINGHEAD 9-28-85 10-7-85 11-7-85 6629' GL 66291 21. PLUG BACK T.D., MD & TVD INTERVALS CABLE TOOLS 20. TOTAL DEPTH. MD A TVO ROTARY TOOLS HOW MAST DRILLED BY 55471 55331 0ne Rotary No 24. PRODUCING INTERVAL(8), OF THIS COMPLETION-TOP, BOTTOM, NAME (MD AND TVD)\* WAS DIRECTIONAL SURVEY WADE 5144-5488' (Blanco Mesa Verde) No 26. TTPE ELECTRIC AND OTHER LOGS RIN COMP. Analyzed Log Systems; Temp Survey; CBL w/GR-Correlation; Comp. Density Sidewall NL; Temp. Log; GR-CL; Ind. L 27. WAS WELL CORED No CASING RECORD (Report all atrings set in well) CASING SIZE WEIGHT, LB /FT. DEPTH SET (MD) CEMENTING RECORD HOLE SIZE AMOUNT PILLED 9 5/8" 32.2# 2241 12 1/4" 325 cu ft 3100' 8 3/4" 359 cu ft 20.0# LINER RECORD 29. TUBING RECORD SIZE TOP (MD) BOTTOM (MD) SACKS CEMENTS SCREEN (HD) SIZE DEPTH SET (MD) PACKER SET (MD) 4 1/2" 29261 55471 463 cu ft 2 3/8" 54671 31. FERFORATION RECORD (Interval, size and number) ACID. SHOT. FRACTURE. CEMENT SQUEEZE, ETC. DEPTH INTERVAL (MD) AMOUNT AND KIND OF MATERIAL USED test to 3500 psi-ok. Perf'd 5333, 5339, 5333-5488 956# 20/40 sand & 69,892 gals 5343, 5350, 5358, 5362, 5374, 5391, 5395, fresh water 5411, 5415, 5435, 5444, 5452, 5467, 5471, 20/40 sand 5488 w/17 SPZ. 2nd stage 5144, 5148, 5152 5144-52981 42,000# & 104,530 gal 5156, 5160, 5164, 5168, 5172, 5176, 5187 slickwater \*Continued Perf's Listed On Back Pg. 1 PRODUCTION
DATE FIRST PRODUCTION | PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pumping) ELL STATUS (Producing or Capable of Comm. HC to be tested 10-24-85 Flowing when connected Shut in DATE OF TEST HO! RE TESTED CHOKE SIZE GAN-OIL BATIO TEST PERIOD SI 7 Days OIL GRAVITY-API (CORR ) No Flow No Flow  $n \in (0, 0)$ No Flow SI 317 SI 341

PINPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED'ST

TITLE

Shut in to be Sold

Temp Survey.

SIGNED

"(See Instructions and Spaces Icr Additional Data on Reverse Side)

Fitle 16 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the

Y: Coment Bond Log

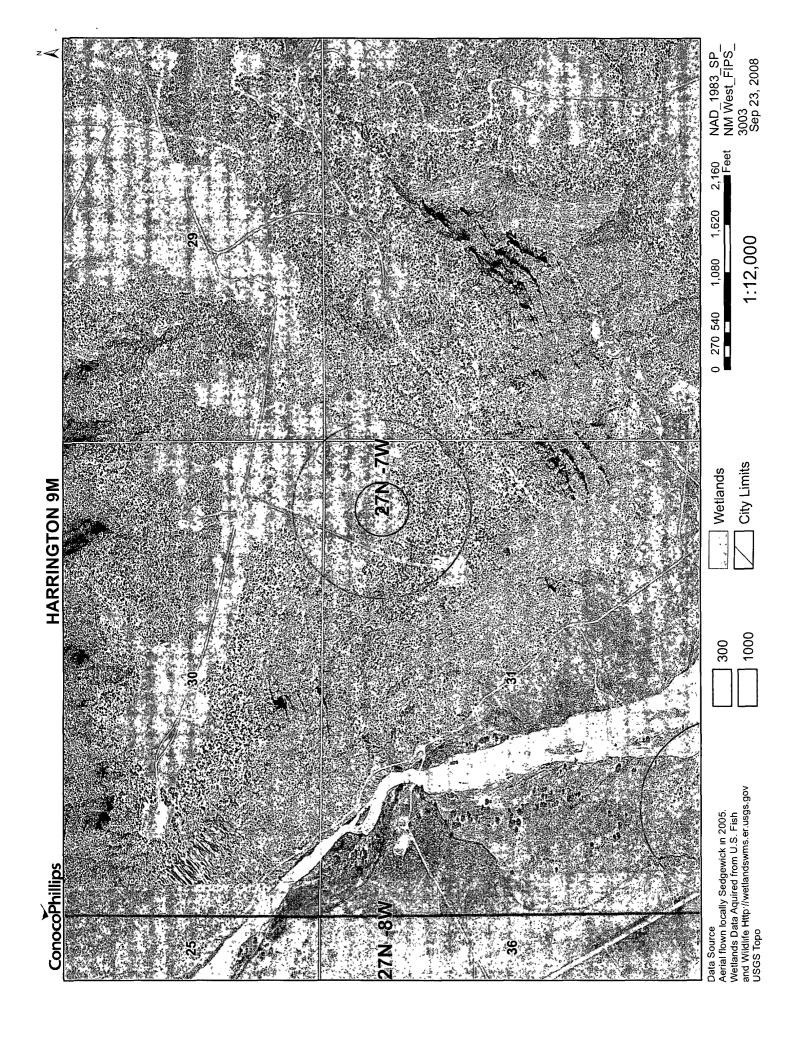
Drilling Clerk

Ernie Minert

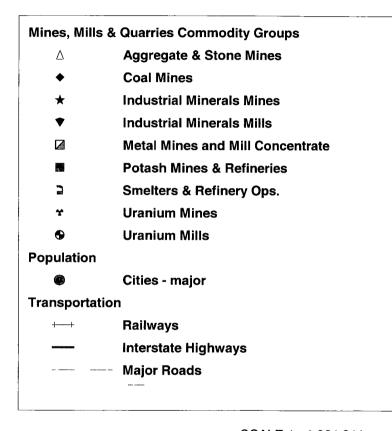
DATE

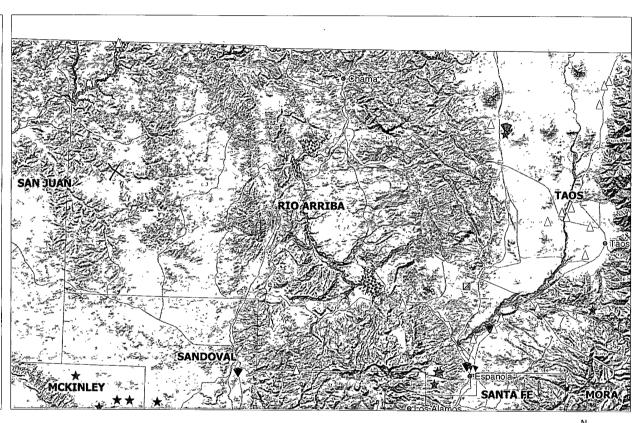
11-11-85

CAR



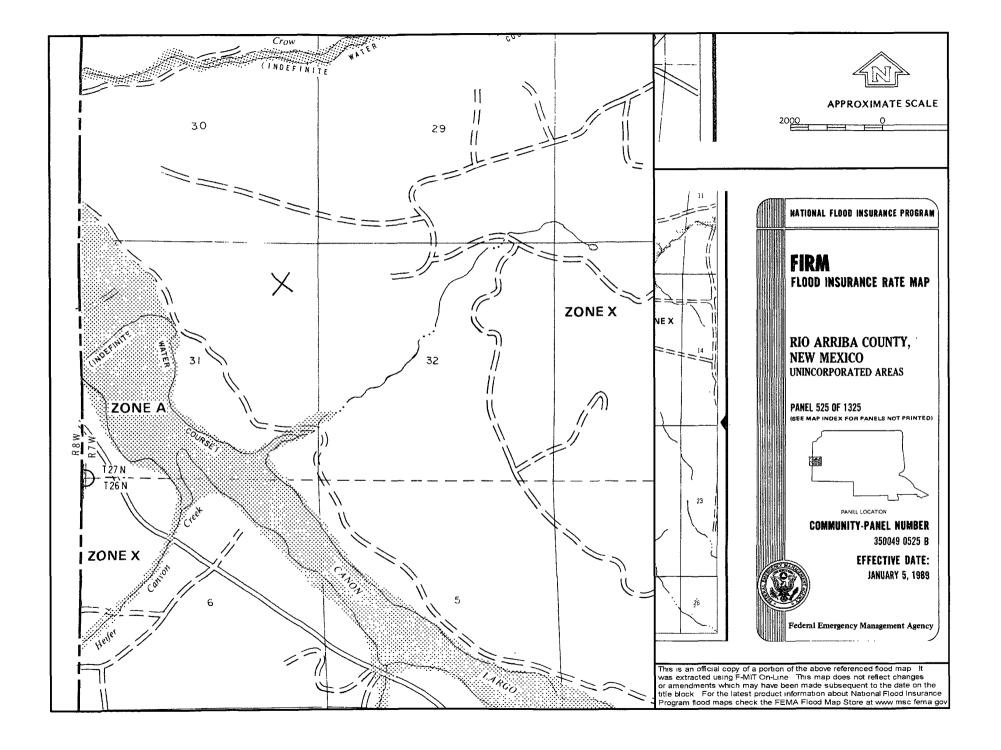
## Harrington 9M Mines, Mills and Quarries Web Map











### Hydrogeological Report for Harrington 9M

#### **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 Harrington 9M 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 Harrington 7 with an elevation of 6629' and groundwater depth of 200'. The subject well has an elevation of 6675' which is greater than the Harrington 7, 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, October 02, 2008 11:23 AM

To: Subject:

'mark\_kelly@nm.blm.gov' Surface Owner Notification

The temporary pits for the wells listed below will be closed on-site. Please let me know if you have any questions.

Harrington 9M () Holder A 100S Hughes 10B San Juan 32-8 Unit 19A State Unicon Com 1M Turner B Com C 100 Turner Hughes 15M

Thank you,

Crystal L. Tafoya Regulatory Technician

ConocoPhillips Company San Juan Business Unit

Phone: (505) 326-9837

Email: Crystal.Tafoya@conocophillips.com

instrict t 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Río Brazos Rd., Aztoc, NM 87410 District IV

1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 12, 2005 OIL CONSERVATION DIVISION Submit to Appropriate District Office
1220 South St. Francis Dr. State Lease - 7 Copies
Santa Fe, NM 87505
Fee Lease - 3 Copies

OCT 1 0 2007

□ AMMENDED REPORT

Bureau of Land Management WELL LOCATION AND ACREAGE DEDICATION PLAT

A	PI Number	Pool Code			<sup>2</sup> Pool Code <sup>3</sup> Pool Name						
30-039	$-039 \cdot 30390   72319/71599   N$					MESAVERDE/DAKOTA					
4 Property Cod		5 Proporty Nazon HARRINGTON							Well Number 9M		
	OURID No.  B Operator Name  9 Elevation PLIDI INCTON PESON PACE ON AND CAS COMPANY  6675								<sup>9</sup> Elevation 6675		
	<sup>10</sup> SURFACE LOCATION										
UL, or lot so.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
Α	31	27-N	7-W		670	NORTH	815	EAST	RIO ARRIBA		
			" E	Bottom H	ole Location I	f Different From	n Surface				
UL or lot no.	Section					North/South line	Feet from the	East/West line	County		
Λ			}	·				1			
Dedicated Acres 320 E/2	1	or Infall	Consolidation	Code 15	Order No.			<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

16	N 89*10'00" W S 89*15'04" E	5282.0' (R) 5282.0' (M) WELL FLAG NAD 83 LAT: 36.534840° N LONG: 107.610333" W NAD 27 LAT:36'32.089662' N ONG: 107'36.683487' W		815	OPERATOR CERTIFICATION  I hereby certify that the information contained hereus to true and completes to the best of my knowledge and ballef, and that this organization either owns a working interest or unleasted mineral interest in the land including the prograted bottom hole location or has a right to drill this well at that location pursuant to a contract with an owner of each a mineral or working interest, or to a voluntary pooling agreement or a computatory pooling order heretafore entered by the division.  Signoture
				5283.3' (R) 5260.2' (M)	Rhonda Rogers Printed Name Regulatory Technicain Title and E-mail Address  Date  18 SURVEYOR CERTIFICATION
		E/2 DEDICATE USA SF- SECTIC T-27-N,	080511 N 31,	N 025,00° E S 01936° W	I hereby carrify that the well location shows on this plat was platted from field noise of actual narveys mode by me or under my supervision, and that the same is true and correct to the best of my belief.  Data of Survey: 6/22/07 Signature and Seal of Professional Surveyor:
					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
  - 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	<del>√50</del> Q	
Chlorides	EPA 300.1	/1000/500	
	<u> </u>		

- 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

Percent PLS

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.