District.I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District.III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

Form C-101

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



APPLICATI	ON FO	R PERMIT	TOD	RILL, RE-	ENTER, DI	EEPEN	PLUGBAC	CK, OR A	DD A ZONE	
		Operator Name						² OGRID Numl	3300/	
200 N	Lora	ine St.S		Midlar	nd, 7x 19 Name	701	30- 02	5-288	34 _	
³ Property Code 301587			Niov	th Vacu			\id	2 u	/ell No.	
		Proposed Pool 1		III Vaci	JUM 145	<u> </u>		sed Pool 2		
North	Vaci	ium Al	מס				•		,	
		1	·	⁷ Surface					, ,	
UL or lot no. Section	Township	34 E	Lot	Idm Feet fire	om the North/S	outh line uth	Feet from the	East/West line	County	
8 Proposed Bottom Hole Location If Different From Surface										
UL or lot no. Section	Township	Range 34E	: :		om the North/S	North/South line Feet from the 19716		East/West line County		
<u> </u>	1.12	1 340	A	lditional We			19.10	EGST	Lea	
Work Type Code		12 Well Type Co			/Rotary		Lease Type Code	15 G1	round Level Elevation 4050	
¹⁶ Multiple		17 Proposed Dep			mation	11	Forbes		20 Spud Date	
Depth to Groundwater 95				e from nearest fres	l	1000		nearest surface		
Pit: Liner: Synthetic		ils thick Clay	Pit Vol	ume: 20000 bbls		ng Method:	L -		,, (<u>, , , , , , , , , , , , , , , , , ,</u>	
Closed-Loop Syste					Fresh V	Vater 💢 F	Brine D Diesel/Oi	l-based Gas	/Air 🔲	
		2	Propos	sed Casing a	nd Cement	Program	1			
Hole Size		sing Size	Casing	g weight/foot	Setting D	epth	Sacks of Cer	nent	Estimated TOC	
17-1/2"		3/8"	48# H4D		420		450		Surf	
12-14"		1/2"	32# SROK55		5000		3800		Surt	
1- 118		יופור	1.0+ 115	5.5# K55	<i>814</i> 6 <i>81</i> 20	···	1175		4188	
		10								
Describe the proposed Describe the blowout prev	program. I	f this application	s to DEEPI	EN or PLUG BAC	K, give the data of	on the prese	nt productive zone	and proposed n	ew productive zone.	
				_		· mal				
* Please see attached procedure for adding lateral.										
MUD PROG	RAM	8.4 - 8	3.9 fm	esh water	fl Kickof	f point	f 8428-84	136' to	10550	
MUD PROGRAM 8.4-8.9 fresh water fl Kickoff point 8428-8436' to 10550.										
130P: Case III 7-1/16" 3000# whydril single pipe ram, blindram 4 manifold										
** Horizonital Parmit Expires 2 Years From Approval **Date Unless Drilling Underway										
** HORIZOI					• 172	e uni	HOTIZE	o-lal	y	
²³ I hereby certify that the	plete to the best	OIL CONSERVATION DIVISION								
of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines at a general permit, or an (attached) alternative OCD-approved plan										
0 .		. //		011			auf	3		
Printed name: Sorin	•	lores So	rine	There	Tule: PETROLEUM ENGINFFR					
Title: Drilling		1			Approval Date:	UN 1 1	2008 Ex	piration Date:		
E-mail Address: Sorir	a_{-} tlo				•					
Date: 6/5/08	Phone: 4	52-62	0-6749	Conditions of A	pproval Atta	ached \square				



DISTRICT I

State of New Mexico Energy, Minerals and Natural Resources Department

FEB 0 5 2008

Form C-102

Revised October 12, 2005 Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

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

OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name			
30-025-28834		North Vacuum Ar	30		
Property Code	Proper	ty Name	Well Number		
301587	NORTH VACU	268H			
OGRID No.	Opera	tor Name	Elevation		
5380	XTO E	NERGY	4051'		

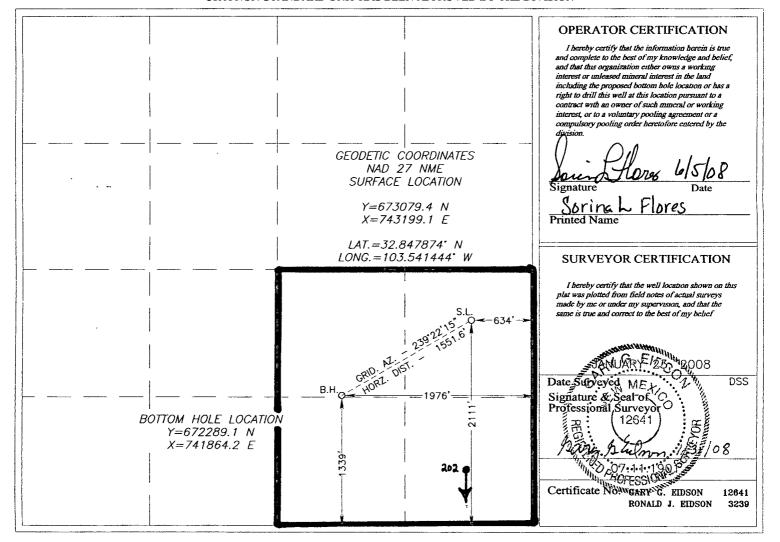
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	10	17-S	34-E		2111	SOUTH	634	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	10	17-S	34-E		1339	SOUTH	1976	EAST	LEA
Dedicated Acres	Joint or	Infill	Consolidation Cod	e Ord	er No.	k			·
160				-					

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



NVAC #268H Horizontal Sidetrack Procedure North Vacuum Abo Field Lea County, New Mexico AFE #717271 XTO WELL ID #61539

TD: 8791' PBTD: 8745' 8-5/8" Casing: 5000'

5-1/2" Liner: 8745 – 4188' TOL, 5-1/2" 15.5# & 17# J-55

see wellbore diagram for all details

Surface Location Target BHL.

2111' FSL & 634' FEL, Sec 10, T17S, R34E 1339' FSL & 1976' FEL, Sec 10, T17S, R34E

Drilled Date:

Abo Perfs: 8629-8677' OA

Ground Elev: 40' Original KB Elev: 40'

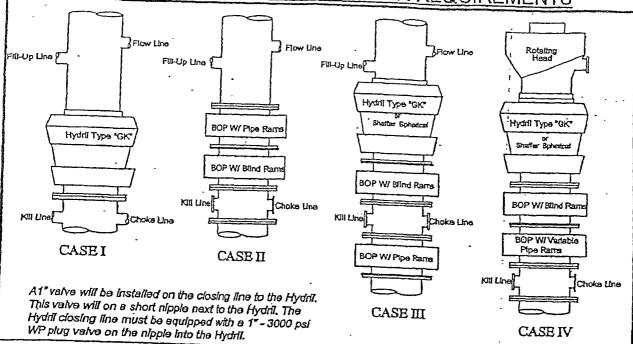
Key Energy #36: 40' (12'AGL)

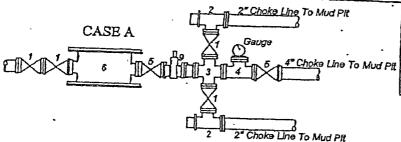
- 1. MIRU Key Rig #36. Install BOP. Test to 250# & 1000#. Notify NMOGB permit attached.
- 2. Unload and tally $\pm 6800^{\circ}$ 2-7/8" 10.40# AOH & 4000' 3-1/2" 13.30# IF workstring.
- 3. R/U WSI WL. Run gauge ring and junk basket for 5-1/2" 17# (drift ID 4.767") to 8560'. Log up and tie into csg collars @ 8541', 8497', 8453', 8410', 8366' (see attached log). P/U Weatherford Oil Tools wireline set 5-1/2" 17# RBP. Set RBP so that the top will be at 8440' RD WL.
- 4. PU 4-3/4" dummy milling assbly or 4-3/4" flat bottom mill with the 2-7/8" AOH & 3-1/2" IF drill pipe and TIH. Tag up on the RBP @ 8440', set down 20,000# of weight on the RBP. Circulate the hole with fresh water. TOOH with assbly.
- 5. PU Oil Tools Whipstock System (3° face) with metal muncher mills. **Note: Make sure all mills will gauge to 4.75". Minimum DD is 4.767".** Total length of the whipstock assembly in the set position is approximately 12'. Orient the UBHO sub and whipstock face on the surface. Insert the gyro stinger (Scientific Drilling) to ensure compatibility and to check orientation.
- 6. TIH with the whipstock assembly slowly, being careful when picking the string up off of the slips and when setting the slips. Fill DP every 2000'. Tag the RBP at 8440' with 2000# of weight. PU to first tool joint and RU Scientific Drilling gyro truck. Orient the whipstock to the desired azimuth and work the torque out of the drill string
- 7. When desired orientation is achieved, tag the RBP with 2000# of weight, take a final check shot with gyro, then apply weight and set the anchor with 20,000# compression to shear the running bolt RD WL truck.
- 8. Obtain values for free torque, PU & SO weights. Install ditch magnets at the surface. Lower milling assembly and make the starting cut through the casing wall at approximately 8428'.

- 9. Mill the remainder of the window, 8428-36', making the necessary rat hole (8440') to ensure that the string mill has fully opened the window, and that the window exit is smooth. Work the mills through the window. When the window is "clean", circulate the hole clean, TOOH and LD the window mills.
- 10. PU 4-3/4" bit ("47-type" the Abo has 'chert' in it), PU 3-1/2" dir assbly w Non-Mag DC & GammaRay, run surface tests, and TIH. *Mud loggers should be rigged up after cutting the window and prior to commencing the curve.* Use Gyro for first few surveys. Follow well plan from Baker. Open hole lateral length is +/- 1800'. Be prepared to drill with an XCD/Xanthum fluid system to keep 'YP' higher for hole cleaning in the 8-5/8" area. For trips out of the hole, circ hole clean with sweep(s). TOH slowly in the curve and lateral, if necessary consider pumping out.
- 11. At TD, circulate the hole clean with polymer sweeps.
- 12. TOOH and LD directional tools.
- 13. TIH with 4-3/4" (4-1/2") swaging tool, single reamer about 7-8 jts behind swaging tool, wash and ream to TD. POH and place 2nd reamer 1 jt behind 1st, wash and ream to TD, pull back up through the window, RIH for push pull test to btm, circ hole clean.
- 14. TOOH & LDDP. RD Re-entry Rig. Prepare to move to the next location.

Chip 4/29/08



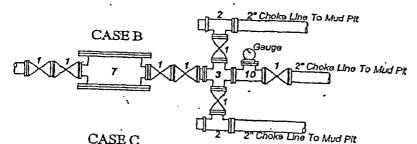




	BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
	13-5/8"	IV	5000	A
7				ξ.

*Rotating head required

Bradenhead furnished by Conoco will be: Mfr. Wood Group Description: 13-3/8" x 13-5/8" 3M Type: SOW



Legend[.]

- 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
- 2. 2" flanged adjustable chokes, min. 1" full opening & equiped with hard him.
- 3. 4" x 2" flanged steel cross.
- 4. 4 flanged steel tee.
- 5. 4" flanged all steel valve (Type as in no. 1). 6. Drilling Spool with 2" x 4" flanged outlet.
- 7. Drilling Spool with 2" x 2" flanged outlet.
- 8. 2° x 2" flanged steel cross.
- 9. 4" pressure operated gate valve.
 10. 2" flanged steel tee.

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field . welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

XTO ENERGY

Well: North Vacuum Abo Unit #268 WI: 84 4115% NRI: 73.86%

Area: Buckeye

Section 10, T17S, R34E

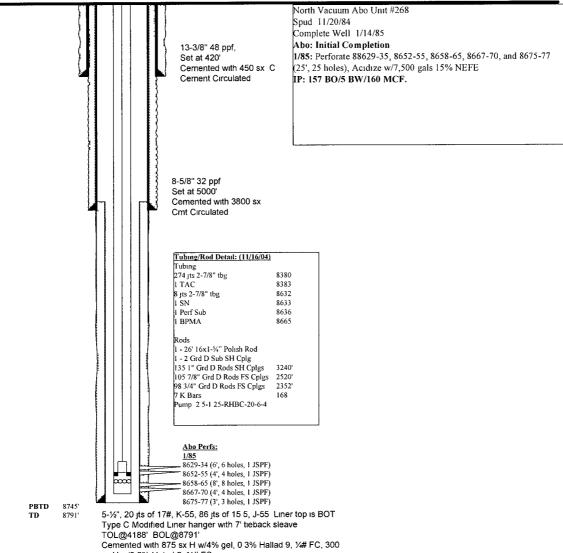
Spud:

Location: County: Lea Elevation: 4048 GL

New Mexico

State:





PREPARED BY: Greg Hicks DATE: 3/23/06

Cmt Circulated

sx H w/0 3% Halad 9, 1/4# FC