Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007

5. Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.			NMSF-077968		
			6. If Indian, Allottee or Tribe Name		
			RCVD JAN 15 '08		
SUBMIT IN TRIPLICATE - C	Other instructions	on reverse side		7. If Unit or CA/Agre	eement, Name and/or No NS. DIV.
Type of Well Oil Well	Bur	JAN 9 2008 eau of Land Manageme Farmington Field Office	ent	8. Well Name and No Central Basin	
3a. Address		3b. Phone No. (include are	a code)	9. API Well No.	
2198 Bloomfield Highway, Farmington, NM 87401 (505) 325-6800			30-045-34426 10. Field and Pool, or Exploratory Area		
4. Location of Well (Footage, Sec., T, R., M., or Survey D			<u> </u>	Entrada	or Exploratory ruca
	13W			11 County or Parish	NM
12. CHECK APPROPRIATE	BOX(ES) TO INI	DICATE NATURE OF N	IOTICE, REP	ORT, OR OTHER	DATA
TYPE OF SUBMISSION	-	TYP	E OF ACTION		
X Notice of Intent	Acidize Alter Casing	X Deepen Fracture Treat	Production Reclamatio	n (Start/Resume)	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair New Construction Recomplet		ie 🗌	Other	
Final Abandonment Notice	Change Plans Convert to Injection	Plug and Abandon Plug Back	Temporaril Water Disp	ly Abandon	
13. Describe Proposed or Completed Operation (clearly If the proposal is to deepen directionally or recomple Attach the Bond under which the work will be perfollowing completion of the involved operations. If testing has been completed. Final Abandonment Netermined that the final site is ready for final inspect	ete horizontally, give s formed or provide the the operation results i otices shall be filed or	ubsurface locations and meas Bond No. on file with BLM/ n a multiple completion or re	ured and true ver BIA. Required s completion in a r	rtical depths of all perti subsequent reports shal new interval, a Form 3	inent markers and zones. Il be filed withın 30 days 160-4 shall be filed once
Energen Resources would like revis	se the followin	g surface casing de	sign for th	ne Central Basi	n SWD #1.
The following casing string will b	oe revised as f	ollows:		,	
*Surface Casing - Change from 9-5/	/8" to 10- <u>3/</u> 4"	40.5 ppf H-40 ST&C.	Cemented w	rith 350 sx (41)	3 cuft) 🗸
Attached is a revised Operations E	Plan.				
			c	CONDITIONS (OF APPROVAL
					issued stipulations.

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed)	Title			
Jason Kincaid	Drilling Engineer			
Jan Ku	Date 1/7/2008			
THIS SPACE FO	R FEDERAL OR STATE OFFICE USE			
Approved by Troy L Salves	Petroleum Engineer 1111200	>&		
Conditions of approval, if any, are attached. Approval of this notice docertify that the applicant holds legal or equitable title to those rights in which would entitle the applicant to conduct operations thereon.	es not warrant orlogica			

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

<u>Drilling Plan</u>

Revised January 7, 2008

Central Basin SWD #1

General Information

Location 690' fsl, 1727' fwl

sesw S09, T28N, R13W

San Juan County, New Mexico

Elevations 6015' GL
Total Depth 7725' (MD)
Formation Objective Chinle

Formation Tops

Nacimiento	Surface	Gallup Ss/Shale	5402'
Ojo Alamo Ss	240'	Greenhom	6192'
Kirtland Sh	355'	Graneros	6247'
Fruitland Fm	1298'	Dakota	6247'
Pictured Cliffs Ss	1665'	Morrison	6542'
Lewis Shale	1857'	Bluff Ss	7222'
Cliff House Ss	3215'	Summerville	7297'
Menefee Fm	3255'	Entrada Ss	7457'
Point Lookout Ss	4145'	Chinle	7617'
Mancos Shale	4430'	Total Depth	7725'
Total Depth	4645'	•	

Drilling

The 13-3/8" wellbore will be drilled with a fresh water Spud Mud system.

The 9-7/8" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings. Mud density is expected to range from 8.3 ppg to 8.9 ppg.

The 6-7/8" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings, and if needed barite. Mud density is expected to range from 9.2 ppg to 10.2 ppg.

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: From Surface to TD - Temp / HRI / CNT, LDT / GR

Coring: None

Surveys: Surface and/or every 500' to TD

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-600'	13 3/8"	10 3/4"	40.5 ppf	H-40 STC
Intermediate	600'-4645'	9 7/8"	7 5/8"	26.4 ppf	N-80 LTC
Liner	4400'-7725'	6 7/8"	5 ½"	17 ppf	N-80 LTC
Tubing	0'-4400'		3 ½"	9.3 ppf	N-80

Casing Equipment:

Surface Casing: Depending on wellbore conditions, a Texas Pattern Guide Shoe on bottom. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: String will be cemented in multiple (2) stages. Cement float shoe on bottom of first joint and a float collar on top of first joint. One centralizer every 3rd joint up to the stage collar and one every 3rd joint to surface. Anticpated Stage Collar depth @ 3000'.

Production Liner: Cement float shoe on bottom of first joint with float collar on top of 2nd joint for a two joint shoe track. One centralizer every 3rd joint up to 4750'.

Wellhead

5000 psi casing head. 9 5/8" x 7 5/8" x 3 1/2" 5000 psi Flanged Wellhead.

Cementing

<u>Surface Casing</u>: 375 sks Type V with 2.0 % CaCl₂ and ¼ #/sk Flocele (15.6 ppg, 1.18 ft³/sk 443 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 psi for 30 min.

Intermediate Casing:

First Stage: Depending on wellbore conditions, cement may consist of 525 sks 50/50 Type V with 0.30 % Halad-344, 0.10 % CFR-3, 5 #/sk Gilsonite and ¼ #/sk Cellophane Flakes (13.3 ppg, 1.35 ft³/sk), followed by (708 ft³ of slurry, 100 % excess to circulate to surface). **Stage Collar at 3000**'. Circulate 4 hours starting at time of plug down.

Second Stage: Depending on wellbore conditions, cement may consist a lead of 680 sks 65/35 Type V with 2.0% CaCl₂, 10 #/sk Gilsonite, and ½ #/sk Cellophane Flakes and a tail of 50 sks Type V with 1.0 % CaCl₂. (12.4 ppg, 1.89 ft³/sk and 15.6 ppg, 1.18 ft³/sk respectively). (1344 ft³ of slurry, 100% excess to circulate to surface).

Liner:

Depending on wellbore conditions, cement may consist of 450 sks 50/50 Type V with 0.80 % Halad-9, 5 #/sk Gilsonite, ¼ #/sk Cellophane Flakes (13.5 ppg, 1.35 ft³/sk). (608 ft³ of slurry, 100% excess to circulate off liner top).

Other Information

- This well will be cased and the target formation fracture stimulated if no natural fracturing is found.
 If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 3) Mesa Verde pore pressure is anticipated to be 700 psi, the Pictured Cliffs is 500 psi and the Fruitland is 300 psi.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.