Form 3160-3 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DI	RILL OF	R REENTER	1 -	Lease Serial No.			
				NM 0606 If Indian, Allotee or	Tribo Nama		
a. Type of Work X DRILL RE	EENTER	3007 1011 4 4 7.05 .	0.1	ii indian, Anotee or	Tribe Name		
b. Type of Well Oil Well Gas Well Other		Single Zone Multiple Zone	e 7.1	Unit or CA Agreem	ent Name and No.		
. Name of Operator		KECEMED	8.1	ease Name and We	il No.		
Energen Resources Corporation		070 F13MM6700		Hart Canyon 2	26 #2s		
a. Address		3b. Phone No. (include area coo	ge) 9.7	API Well No.			
2198 Bloomfield Highway Farmington, New Mexi. Location of Well (Report location clearly and in accordance with a	<u>l∞ 874</u>	01 (505) 325-6800		<u> 30 -845-</u>			
	iny siate e	quirements)*		Field and Pool, or E			
At surface 2085' FSL, 610' FEL				Basin Fruitla	and Coal Blk. and Survey or Ar		
At proposed prod. zone					E31N, R10W NMP		
4. Distance in miles and direction from nearest town or post office*	12.0	County or Parish	13. State				
Apprximately 8.75 miles no	orthest	of Aztec, NM	Sar	n Juan	NM		
5. Distance from proposed*	1	6. No. of Acres in lease	17. Spacin	g Unit dedicated to	this well		
location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)		2394.72	317	3/7.27 South 1/2			
8. Distance from proposed location* to nearest well, drilling, completed,	1	9. Proposed Depth	20.BLM/I	BIA Bond No. on f	ile		
applied for, on this lease, ft. 1250'		3281 '					
1. Elevations (Show whether DF, KDB, RT, GL, etc.	[]	22. Approximate date work will star	rt*	23. Estimated dura	tion		
6344' GL		02/15/05		14	days		
The following, completed in accordance with the requirements of Onsho		Attachments					
 Well plat certified by a registered surveyor. A Drilling Plan A Surface Use Plan (if the location is on National Forest System Las SUPO shall be filed with the appropriate Forest Service Office). 		4. Bond to cover the operation litem 20 above). 5. Operator certification. 6. Such other site specific into authorized officer.	ons unless	covered by an existing			
5. Signuature	Nam	ne (Printed/Typed)		Date			
	1						
Title	Nat	than Smith			01/10/05		
Drilling Engineer Approved by (Signature) / / /	Nam	ne (Printed/Typed)		Date			
		(- · · · · · · -) - · · · · · ·		G	1/2./		
Willed Sut					12405		
AFM	Offic	FFO					
Application approval does not warrant or certify that the applicant hole onduct operations thereon. Conditions of approval, if any, are attached.	lds legal o	r equitable title to those rights in t	he subject	lease which would	entitle the applicant to		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it states any false, fictitious or fraudulent statements or representations as	a crime fo to any ma	or any person knowlingly and willful tter within its jurisdiction.	lly to make	to any department of	or agency of the Unite		
*(Instructions on page 2)							
		HOLD COM POR di	rect	inal 50	yvel/		

MWOCD

District 1
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

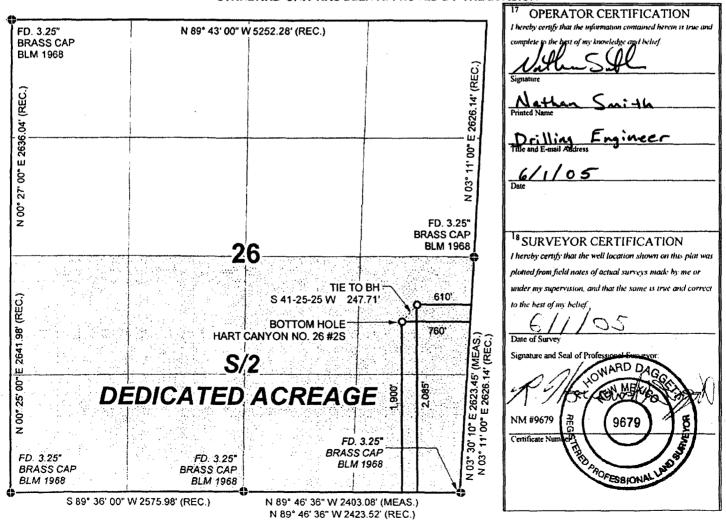
Form C-102 Revised June 10, 2003 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

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	API Numbe	3287	\$ 7	Pool Cod			Pool Na UP FRUITLAN	*	
4 Property (Code				⁶ Well Number				
3004	63			28					
OCRID		⁹ Elevation							
1609		6344'							
					10 Surface	Location			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West lin	e County
1	26	31N	10W		2085	SOUTH	610	EAST	SAN JUAN
	·		II Bo	ottom Ho	le Location I	f Different From	m Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Į.	26	31N	N 10W 1900 SOUTH 760 EAST S.						
¹² Dedicated Acres 320 3/7.		r Infill ¹⁴ C	onsolidation	Code 15 O	rder 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



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.

USA NM 0606

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.

6. If Indian, Allottee or Tribe Name

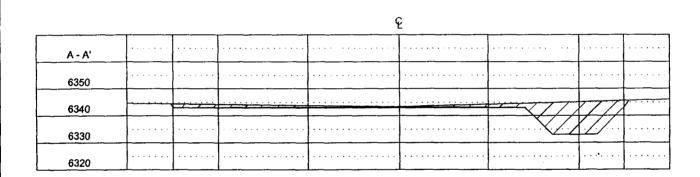
CUDMIT IN TRIPLICATE	Othor in atrustic and		nm o F0	7 If Unit or C	A/Agreement, Name and/or No.			
SUBMIT IN TRIPLICATE -	Other Instructions	outlike de Cale la contra cont	PM 3 58		i D'15. Comont, I tante and Of 140.			
1. Type of Well Oil Well X Gas Well Other 2. Name of Operator		RECE 070 FARMI	IVED	8. Well Name :				
Energen Resources Corporation								
3a. Address		3b. Phone No. (include	area code)	19. API Well No	มร 3282S			
2198 Bloomfield Highway, Farmington	, NM 87401	(505) 325-68	•	10. Field and	Pool, or Exploratory Area			
4. Location of Well (Footage, Sec., T., R., M., or Survey I	Description)			1	tland coal			
Sec.26, T31N, R10W 2085' FSL, 6 I - NE/SE	10' FEL			11. County or Parish, State San Juan NM				
12. CHECK APPROPRIATE	BOX(ES) TO INC	DICATE NATURE OF	NOTICE, REP					
TYPE OF SUBMISSION		T	YPE OF ACTION	· 10				
X Notice of Intent	Acidize	Deepen	Production	(Start/Resume)	Water Shut-Off			
Subsequent Report	Alter Casing	Fracture Treat	Reclamation	on.	Well Integrity			
Subsequent Report	Casing Repair	New Construction	Recomplet	e	Other			
Final Abandonment Notice	X Change Plans	Plug and Abandon	Temporari	ly Abandon				
	Convert to Injection	on Plug Back	Water Dis	osal				
following completion of the involved operations. It testing has been completed. Final Abandonment I determined that the final site is ready for final inspectance. Energen Resources plans to change plan according to the attached discord at 1929' FSL and 736' FEL less Suface Casing changed to: 9-5/8' Production Casing setting depth changed to: Cement with 500 sks. 65/	Notices shall be filed on ction.) The Hart Canyourectional surve eaving the surfactional surve and the surfactional surve eaving the surfactional surve eaving the surfactional surve eaving the surfaction surve eaving the surfaction survey.	nly after all requirements, in 26 #2S from a vary with a new BHL one location the s ST&C. Cement with 3281' TVD	including reclamation vertical drill of 1900' FSL vame at 2085'	I plan to a and 760' F. FSL and 61. ass B (207	mpleted, and the operator has deviated drill EL entering the O' FEL. cu.ft.)			
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed)		Title			60 C 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1			
Nathan Smith		Drill	ling Engineer		- Jakata			
with the		Date 06/02/	05					
THI	S SPACE FOR FEL	DERAL OR STATE O	FFICE USE					
Conditions of approval, if any, are attached. Approval certify that the applicant holds legal or equitable title to	those rights in the sub	Title warrant or Office oject lease	FY	D	ate 9/20/08			
which would entitle the applicant to conduct operations to Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section States any false, fictitious or fraudulent statements or re	on 1212, makes it a crin	ne for any person knowinglester within its jurisdiction	ly and willfully to m	ake to any depar	tment or agency of the United			

ENERGEN RESOURCES CORPORATION

HART CANYON 26 #2S 2085' FSL, 610' FEL LOCATED IN THE NE/4 SE/4 OF SECTION 26, T31N, R10W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6344', NAVD 88



LATITUDE: 36°52'05"N LONGITUDE: 107°50'44"W DATUM: NAD 83



C/L DRAINAGE

(4)C-0.4

C-2.0

3 C-1.5

C-0.5

EXIST. ROAD

ACCESS ROAD -

F+3.6

F+2.6

F+1.0

B - B'	 		 	 	 		
6350	 			 	 		
6340		<u> </u>		<i>P</i>		///	
6330	 			 , ,	 	<u> </u>	
6320	 		 	 	 		

C - C'	 						 .	
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6330	 						 	
6320	 					, , , , , , , , , , , , , , , , , , , ,	 	

Operations Plan

Revised June 1, 2005

Hart Canyon 26 #2S

General Information

Location 2085' fsl, 0610' fel at Surface

1900 fsl, 0760 fel at TD S26, T31N, R10W

San Juan County, New Mexico

Elevations 6344' GL

Total Depth 3291' (MD), 3281' TVD)
Formation Objective Basin Fruitland Coal

Formation Tops

San Jose Surface Nacimiento 231' TVD Ojo Alamo Ss 1705' (MD),1701' TVD Kirtland Sh 1816' (MD),1811' TVD Fruitland Fm 2695' (MD),2686' TVD Top Coal 2850' (MD), 2841' (TVD) **Bottom Coal** 3091' (MD), 3081' (TVD) Pictured Cliffs Ss 3096' (MD), 3086' (TVD) **Total Depth** 3291' (MD), 3281' (TVD)

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 7 7/8" wellbore will be drilled with a low solids fresh water/polymer mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.3 ppg to 8.9 ppg. Kick off point is approximately at 400 ' TVD.

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. 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: MWD, Induction/Gamma Ray and Density Logs.

Coring: None

Natural Gauges: Surface and or as needed for directional drilling evaluation.

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-300'	12 ¼"	9 5/8"	32.3 ppf	H-40 ST&C
Production	300'-3281' (T 3291' (N	•	5 ½"	15.5 ppf	J-55 LT&C
Tubing	0'-3200'	•	2 3/8"	4.7 ppf	J-55

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.

Production Casing: Depending on wellbore conditions, a Cement nose guide shoe with self fill insert float collar on top of bottom joint and casing centralization with standard bow spring centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Wellhead

9 5/8" 2000 x 5 1/2" Larkin casing head. 5 1/2" 2000 x 2" tubing head.

Cementing

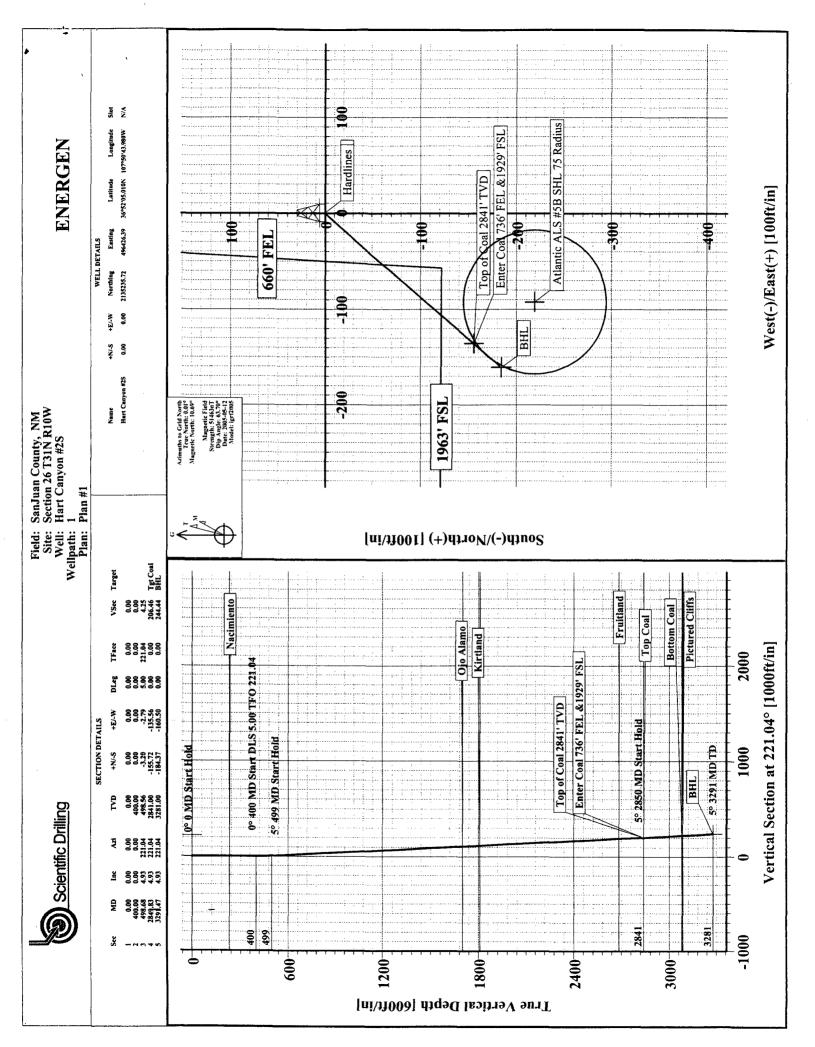
Surface Casing: 175 sks Std (class B) with 2.0 % CaCl₂ and ¼ #/sk Flocele (15.6 ppg, 1.18 ft³/sk 207 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: Before cementing, circulate hole at least 1 ½ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 500 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 150 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.2ppg, 1.24 ft³/sk). (1166 ft³ of slurry, 100 % excess to circulate to surface).

Pump 30 sks of flyash scavenger spacer consisting of 15.0 % Benonite and 0.15 % HR-5 ahead of cement

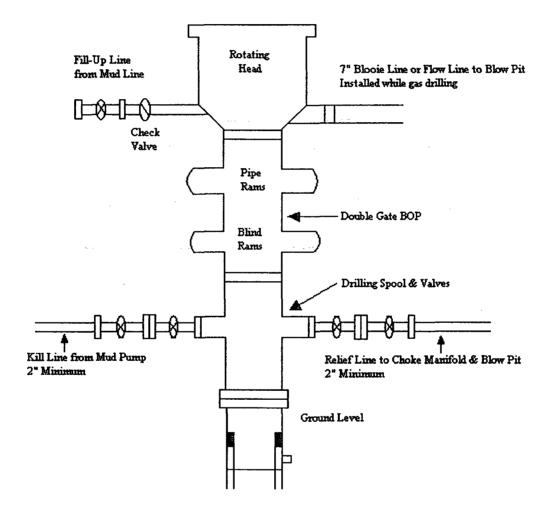
Other Information

- 1) This well will be cased and the Basin Fruitland Coal fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.



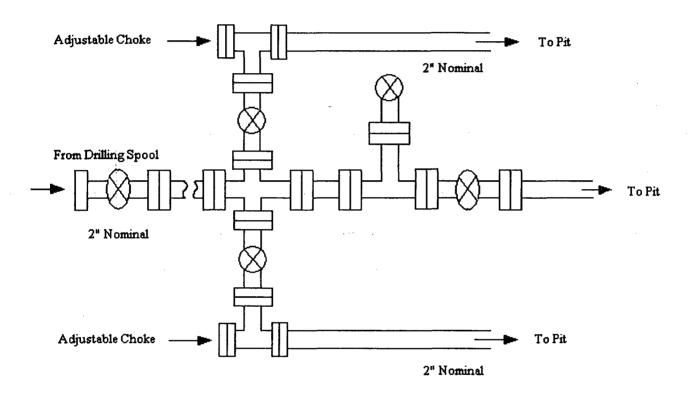
Energen Resources Corporation

Typical BOP Configuration for Gas Drilling



Energen Resources Corporation

Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD