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 DRILL OR REENTER			5. Lease Serial No.	
			NM 013363 6. If Indian, Allotee or Tribe Name	
Ia. Type of Work REENTE	UII 6 50	ا ما حما	indice of Trioc Ivalic	
1b. Type of Well Oil Well Gas Well Other [	2006 JUL 6 P	7. Unit or Ca	A Agreement Name and No.	
2. Name of Operator	RECEIVE	O. L.Casc Ivai	ne and Well No.	
Energen Resources Corporation  3a. Address	3b. Phone No. (include area coo	te) Philip	ps #800S	
2198 Bloomfield Highway Farmington, New Mexico 8		9. API WEII	<sup>№</sup> . 24 <i>5 -3</i> 3837	
4. Location of Well (Report location clearly and in accordance with any State			Pool, or Exploratory	
At surface 715 fnl, 895 fwl		Basin	Fruitland Coal	
7%6 \$85			R., M., or Blk. and Survey or Area T28N, R08W	
14. Distance in miles and direction from nearest town or post office*		12. County or		
Approximately 11 miles south	west of Blanco	San Juan	NM	
15. Distance from proposed*	16. No. of Acres in lease	17. Spacing Unit dea		
location to nearest property or lease line, ft.  (Also to nearest drg. unit line, if any)	305.87	3 <i>05</i> .\$7	w 1/2	
	10 Proposed Death			
18. Distance from proposed location* to nearest well, drilling, completed,	19. Proposed Depth	20.BLM/BIA Bon	a No. on the	
applied for, on this lease, ft.  Approx. 300'	317 <b>3</b> +/-	NM 27	07	
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will star	t* 23.Estin	nated duration	
GIL 6720'	09/25/06		14 days	
	A A44 1			
	4. Attachments			
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan</li> <li>A Surface Use Plan (if the location is on National Forest System Lands, th SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>			ny an existing bond on file (see	
25. Signuature	Name (Printed/Typed)		Date	
Annan Pascoe	Annan Pascoe		6/7/06	
Title				
Reservoir Engineer			_	
Approved by (Signautre)	Name (Printed/Typed)		Date	
Title	Office		1/2900	
AFM.	FRO			
Application approval does not warrant or certify that the applicant holds legated conduct operations thereon.  Conditions of approval, if any, are attached.	al or equitable title to those rights in t	he subject lease whi	ch would entitle the applicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crim States any false, fictitious or fraudulent statements or representations as to any		lly to make to any de	epartment or agency of the United	
*(Instructions on page 2)			200 200 200	
1			31/00/00 30/31/2	
u		A. C. C.		
		12 12 12 13 15 15 15 15 15 15 15 15 15 15 15 15 15	LIL 2008	
	MMOCD		EVERTINE	

MMOCD

DISTRICT I 1825 N. French Dr., Hobbs, N.M. 88240

#### State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

DISTRICT II 811 South First, Artesia, N.M. 88210

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

Submit to Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies

DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

1000 Rio Brazos Rd., Aztec, N.M. 87410

☐ AMENDED REPORT

	WELL LOCATION AN	D ACREAGE	DEDICATION	PLAT	
30-045-3	3837 Pool Code	7	a contract of the contract of	Name ND COAL	
Property Code		Property Name			• Well Number
21360		PHILLIPS			800 S
OGRID No.		Operator Name			<sup>6</sup> Elevation
1102929	ENERGEN RE	SOURCES CORPO	RATION		6719.8'

<sup>10</sup> Surface Location UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County 785 32 28N 8W **NORTH** 885' WEST SAN JUAN D <sup>11</sup> Bottom Hole Location If Different From Surface Lot Idn Feet from the North/South line Feet from the East/West line UL or lot no. Section County Township Dedicated Acres 7 18 Joint or Infill 14 Consolidation Code 15 Order No. 305.59 Acres - (W/2)

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

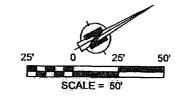
16	OR A NON-STAN	DARD UNIT HAS BE	EEN APPROVED BY	THE DIVISION
CALC  (N) 2885:  O 9 LAT. 36.82293; N G 9 LONG. 107.71029; W TO 70 DATUM (NAD. 1983)	N 89"57"38" E N 90"00" E	5280.00' (M) 5280.00' (R)	PND 27 BC GLD 1916	OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my knowledge and bests
N 0012'52" W. N 006'W		AUG 200 RECEIVED ON CONSTRUCTION OF COMMENTS OF COMMEN		Signature Alathan Smith Printed Name Drilling Engineer Title 8/11/06 Date
PND 25 BC GLO 1916				18 SURVEYOR CERTIFICATION  I hereby certify that the well location shown on this plat was plotted from field 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.  MAY 18. 2006  Date of Surger B. RUS
	PHILLIPS BOD	3	4 REVISION: #1	Date of Sury R. A. A. S. Surveyor.  Signature quality of the Surveyor.  10201  DATE RUSSEINE  Cartifloria Number ESSIGN  10201
				Certificate Number SSISNI 10201

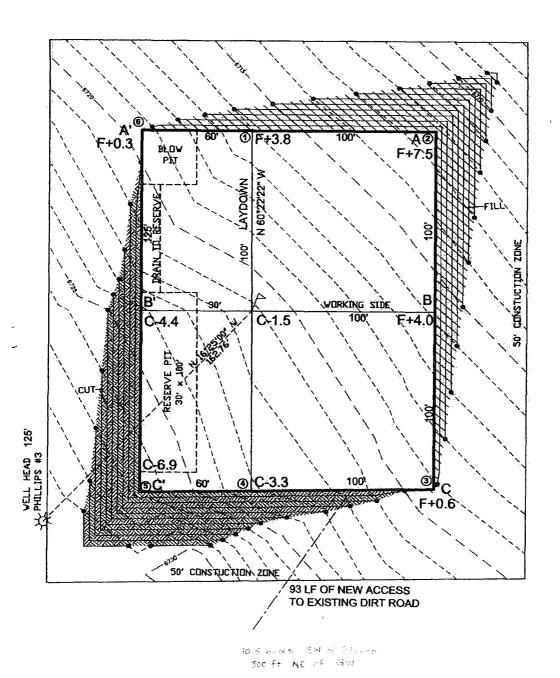
Submit 3 Copies To Appropriate District Office	Energy, Minerals and Natu			Form C-10.	
District I 1625 N. French Dr., Hobbs, NM 87240	energy, witherars and watu	rai Resources	WELL API NO. 20	May 27, 200 -0-15- 33837	<del>י</del>
District II 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION		$\frac{\mathcal{D}}{\mathbf{G}}$	-040- 5083 T	4
District III	1220 South St. Fra		5. Indicate Type of I		
1000 Rio Brazos Rd., Aztec, NM 87410 District IV	Santa Fe, NM 8	37505	STATE	FEE 🗌	4
1220 S. St. Francis Dr., Santa Fe, NM 87505			6. State Oil & Gas L	Lease No.	
SUNDRY NOTIC (DO NOT USE THIS FORM FOR PROPODIFFERENT RESERVOIR. USE "APPLIC PROPOSALS.)		OR PLUG BACK TO A	7. Lease Name or U. Phillips	nit Agreement Name:	
1. Type of Well:			8. Well Number		1
Oil Well Gas Well 🕱	Other		8008	3	
2. Name of Operator			9. OGRID Number		1
Energen Resources Corporat	ion		16292	<del></del>	4
3. Address of Operator	Thermin at an		10. Pool name or W		
4. Well Location	ramington, NM 8/401		Basin Fruitland		1
Unit LetterD :	715' feet from the No.	rth line and	895' feet from	the West line	;
Section 32	Township 28N	Range 08W	NMPM	County San Juan	
	11. Elevation (Show whether 672	DR, RKB, RT, GR, ei 20' GL	tc.)		
Pit or Below-grade Tank Application X	or Closure				
Pit type Drill Depth to Groundwater	>100' Distance from nearest fres	h water well <u>&gt;1000 '</u> Di	stance from nearest surface	water <u>&gt;250'</u>	
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume.	bbls; Constructi	on Material		
12. Check A	ppropriate Box to Indicate	Nature of Notice,	Report, or Other I	Data	
NOTICE OF INTE	ENTION TO:	SUB	SEQUENT REPO	ORT OF:	
PERFORM REMEDIAL WORK	PLUG AND ABANDON 🗌	REMEDIAL WORK		ALTERING CASING [	
FEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRILL	ING OPNS.	PLUG AND ENT	
PULL OR ALTER CASING	MULTIPLE COMPLETION	CASING TEST AND CEMENT JOB			
OTHER: Build drilling pit	X	OTHER:			]
13. Describe proposed or completed of starting any proposed work). or recompletion.					
Energen Resources plans to issued on November 1,2004. accordance with BIM and "O	Energen anticipates the	submittal of a C-	_		
hereby certify that the information ab grade tank has been/will be constructed or cl	ove is true and complete to the psed according to NMOCD guideline	best of my knowledges x , a general permit	e and belief. I further ce	rtify that any pit or below- ative OCD-approved plan [	_ _
SIGNATURE ASSESSED	TIT	LE <u>Drillin</u> o	Engineer D	ATE <u>06/08/06</u>	_
Type or print name Nathan Smith	E-n	nail address:	Telepho	om one No. 505.325.6800	
For State Use Only	$\left( +\right) _{I}$	BEFUTT OIL & GAS	nspector, dist. 🗗	JUL 28 2006	ļ
APPROVED BY	S//W TIT			TE	
Conditions of Approval, if any:	<i>''</i>				

LATITUDE: 36.62293°N LONGITUDE: 107.71029°W DATUM: NAD 83

## **ENERGEN RESOURCES CORPORATION**

PHILLIPS #800 S
715' FNL & 895' FWL
LOCATED IN THE NW/4 NW/4 OF SECTION 32,
T28N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 6719.8', NAVD 88





1 FOOT CONTOUR INTERVAL SHOWN

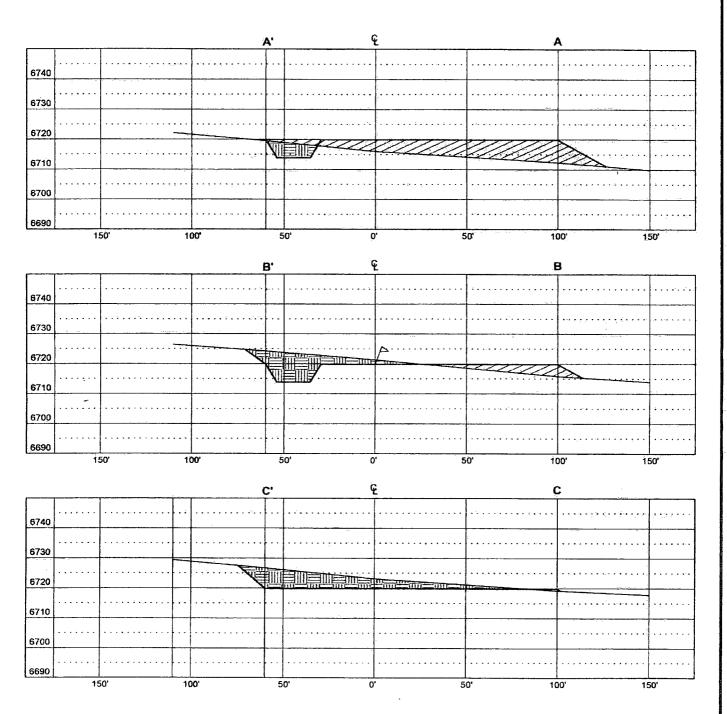
SCALE: 1" = 50' JOB No.: ERG103 DATE: 05/18/06 REVISION #1



Russell Surveying 1409 W. Aztec Blvd. #5 Aztec, New Mexico 87410 (505) 334-8637

## **ENERGEN RESOURCES CORPORATION**

PHILLIPS #800 S
715' FNL & 895' FWL
LOCATED IN THE NW4 NW4 OF SECTION 32,
T28N, R8W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
ELEVATION: 6719.8', NAVD 88



VERT. SCALE: 1" = 30' HORZ. SCALE: 1" = 50' JOB No.: ERG103 DATE: 05/18/06 REVISION #1





Russell Surveying 1409 W. Aztec Blvd. #5 Aztec, New Mexico 87410 (505) 334-8637

## **Operations Plan**

June 7, 2006

## Phillips #800S

#### **General Information**

Location 0715' fnl, 0895' fwl

nwnw S32, T28N, R08W

San Juan County, New Mexico

Elevations 6720' GL Total Depth 3173' (MD)

Formation Objective Basin Fruitland Coal

### **Formation Tops**

San Jose	Surface
Nacimiento	833'
Ojo Alamo Ss	2048'
Kirtland Sh	2183'
Fruitland Fm	2663'
Top Coal	2808'
Bottom Coal	2973'
Pictured Cliffs Ss	2978'
Total Depth	3173'

### **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. Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack (figure 1) 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: Induction/Gamma Ray and Density Logs

Coring: None

Surveys: Surface and/or every 500' to TD

#### **Tubulars**

#### Casing, Tubing, & Casing Equipment:

String Surface	<b>interval</b> 0'-300'	Wellbore 12 1/4"	<b>Casing</b> 8 5/8"	Csg Wt 24.0 ppf	<b>Grade</b> J-55 ST&C
Production	300'-3173'	7 7/8"	5 ½"	15.5 ppf	J-55 LT&C
Tubing	0'-3100'		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

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

#### Cementing

Surface Casing: 225 sks Std (class B) with 2.0 % CaCl<sub>2</sub> and ½ #/sk Flocele (15.6 ppg, 1.18 ft³/sk 247 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 1000 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 475 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl<sub>2</sub>, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 145 sks of Standard (Class B) cement with 5.0 #/sk Gilsonite, and ¼ #/sk Flocele (15.2ppg, 1.24 ft³/sk). (1111.0 ft³ of slurry, 100 % excess to circulate to surface).

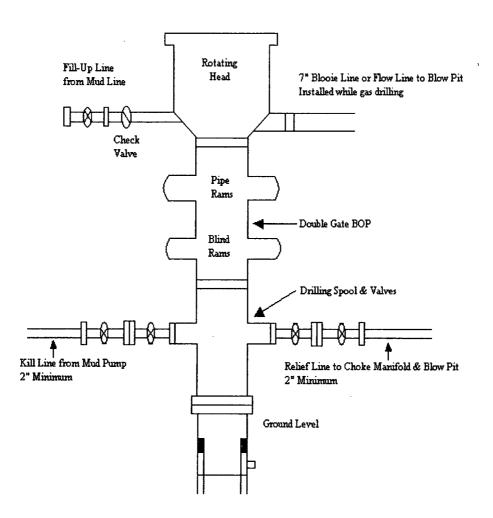
Pump 20 bbls gelled water and 10 bbls fresh water spacer ahead of lead cement.

#### 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.

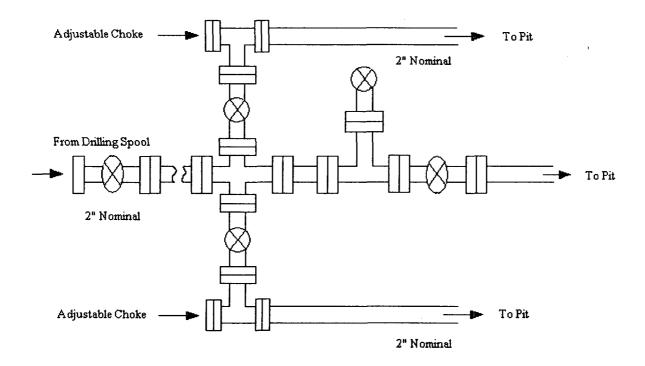
## **Energen Resources Corporation**

Typical BOP Configuration for Gas Drilling



# **Energen Resources Corporation**

Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD