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 (1	5. Lease Serial No. NMM 30015			
Ia. Type of Work N DRILL REENTER	}		Allotee or Tribe Name		
. .	ÎÎSingleZone Mûltiple Zone	7. Unit or Ca	A Agreement Name and No.		
2. Name of Operator	RECZIVED	8 Lease Nat	me and Well No.		
Energen Resources Corporation	Carrac	as 30B #13 A			
3a. Address	O 3b. Phone No. (include area coo	9. API Well	No.		
2198 Bloomfield Highway Farmington, New Mexico 87	7401 (505) 325–6800		639-27-18		
4. Location of Well (Report location clearly and in accordance with any State	e equirements) -		Pool, or Exploratory		
At surface 800' FSL, 70' FWL			Fruitland Coal R., M., or Blk. and Survey or Area		
At proposed prod. zone			M-Sec.30-T32N-R04W NMPM		
14. Distance in miles and direction from nearest town or post office*			12. County or Parish 13. State		
33 miles NE of Goberna	dor NM	Rio Arril			
15. Distance from proposed*	16. No. of Acres in lease	17. Spacing Unit de			
location to nearest					
property or lease line, ft. 70' (Also to nearest drg. unit line, if any)	2482.20		W 1/2 301.00		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20.BLM/BIA Bon	d No. on file		
4100'	4023'				
21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will star	t* 23.Estin	23. Estimated duration		
7203' GL	May 2005	i	7 days		
24	. Attachments				
The following, completed in accordance with the requirements of Onshore Oil a	and Gas Order No. 1, shall be attached	to this form:			
 Well plat certified by a registered surveyor. A Drilling Plan A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). 			ns as may be required by the		
25. Signuature N	ame (Printed/Typed)		Date		
Title Cing Themas I	Doug Thomas		10/13/04		
Drilling Superintendent					
	ame (Printed/Typed)		Date /		
TAMMOND LOO	(9/4/80		
Title	Office				
AFM	FF				
Application approval does not warrant or certify that the applicant holds legal conduct operations thereon.	l or equitable title to those rights in	the subject lease wh	ich would entitle the applicant to		
Conditions of approval, if any, are attached.					
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime States any false, fictitious or fraudulent statements or representations as to any		illy to make to any d	epartment or agency of the United		
*(Instructions on page 2)	(C'C'7'0)				
• • •	20,00				
PROLID C104 FO	E OIL WS. D	SPRILLING OF	PERATIONS AUTHORIZED ARE		
This action is subject to technical and	MOCD CERCLE IN INC.	S SPUBLICUITU	OCOMPLIANCE WITH ATTACHED REQUIREMENTS".		

District I PO Box 1980, Hobbs, NM BB241-1980

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

Form C-102 Revised February 21, 1994 Instructions on back

District II PO Drawer DD, Artesia, NM 88211-0719

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

District III 1000 Rio Brazos Rd., Aztec, NM 87410

PO Box 2088
Santa Fe, NM 87504

AMENDED REPORT

District IV PO Box 2088, Santa Fe, NM 87504-2088

OCT 14 2004

√	WELL LUCATION AN	U AUREAGE FORMING	ng Wanagement	
API Number	*Pool Code	- commission	n Field Office	
30-039-27872	71629	BASIN	FRUITLAND COAL	
*Property Code		operty Name		Well Number
35597	С	ARRACAS 308	-	205 −13 /
'OGRID No.	" Op	erator Name		Elevation
162928	ENERGEN RES	DURCES CORPORATION		7203' <i>v</i>
	40 C C			

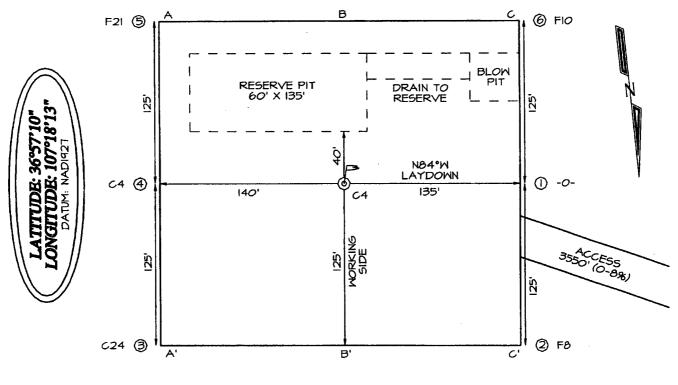
[™] Surface Location UL or lot no. Sect ion Range Lot Idn Feet from the North/South line Feet from the East/West line RIO М 30 32N **4W** 800 SOUTH 70 WEST ARRIBA ¹¹Bottom Hole Location If Different From Surface UL or lot no. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County ¹² Deducated Acres ¹³Joint or Infill ³⁴ Consolidation Code ⁹⁵ Order No. 301.0 Acres - (W/2)

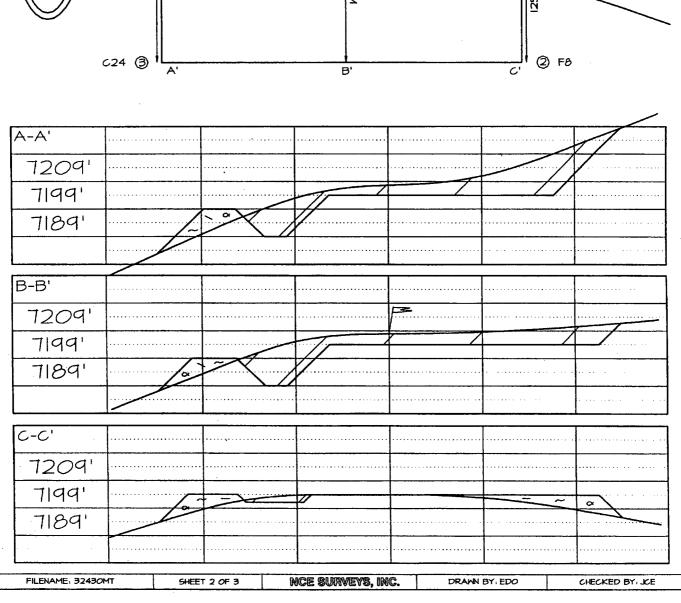
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	1161.60	1320.00	2640.00
	LOT 1		
	LOT 2		
5280.00		3	0- $ 000.0825$
	LOT 3		
	<u>70'</u>		
	0 LOT -00 4		
	1164.90	1320.00	2640.00 °

THE DIVISION
17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete
to the best of my knowledge and belief
1 11 Jan Eliana
Signature Signature
Doug Thomas
Printed Name
Drilling Superintendant
Title
10-12-04
Date
*SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field
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.
Date Revised: SEPTEMBER 10, 2004 Survey Date: OCTOBER 24, 2003
Signature and Seal of Professional Surveyor
CON C. EDWA
SEN C. EDWARD
(8/6)
(元((15269))) []
8 8
15269 E
Tie C Fallings
UASON C. EDWAKES
Certificate Number 15269

ENERGEN RESOURCES CORPORATION CARRACAS 30B #13 800' FSL & 70' FWL, SECTION 30, T32N, R4W, NMPM RIO ARRIBA COUNTY, NEW MEXICO ELEVATION: 7203'





OPERATIONS PLAN

WELL NAME: Carracas #30B-13

<u>LOCATION</u>: 800' FSL, 70' FWL, Section 30, T32N, R4W, Rio Arriba County, NM FIELD: Basin Fruitland Coal <u>ELEVATION</u>: 7203' GL

FORMATION TOPS:

Surface San Jose
Nacimiento 2208
Ojo Alamo 3333
Kirtland 3428
Fruitland 3793

Total Depth 4023

LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate- Yes Inter TD to total depth: None

Mud Logs:

Intermediate to total depth

Coring:

None

Natural Gauges:

Every 500' from intermediate TD to total depth

<u>MUD PROGRAM</u>: Fresh water low solids mud from surface to intermediate TD (9.0 PPG). Air/mist from intermediate casing point to total depth.

CASING PROGRAM:

HOLE SIZE	DEPTH	CSG SIZE	<u>WT.</u>	<u>GRADE</u>
12 ¼"	200'	9 5/8"	32.3#	H-40 – ST&C
8 3/4"	3848'	7"	23#	J-55 – LT&C
6 1/4"	3748'- 4023'	5 ½"	15.5#	J-55 – LT&C

TUBING PROGRAM:

4000' 2 3/8" 4.7# J-55

WELLHEAD: 11" 3000 x 9 5/8" casing head. 11" 3000 x 7 1/16" 3000 xmas tree.

BOP SPECIFICATIONS:

An 11" 2000 psi minimum double gate BOP stack (Figure 1) 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 be used. An upper Kelly Cock valve with handle available and drill string valve to fit each drill string will be available on the rig floor during drilling operations.

CEMENTING:

9 5/8" surface casing - cement with 110 sks Class B Cement with ¼" flocele/sk and 2% calcium chloride (130 cu. ft. of slurry, 100% excess to circulate to surface). WOC 12 hrs. Test casing to 600# for 30 minutes.

Texas Pattern Guide Shoe on bottom. 3 bow type centralizers spaced throughout the string.

7" intermediate casing – cement with 505 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and ½# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and ½# flocele/sk. (1098 cu. ft. of slurry, 90% excess to circulate to surface). WOC 12 hrs. If cement does not circulate, run temperature survey in 8 hrs. to determine TOC. Test casing to 1200 psi for 30 minutes.

Cement nose guide shoe on bottom with a self-fill insert float valve on top of shoe joint. 10 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

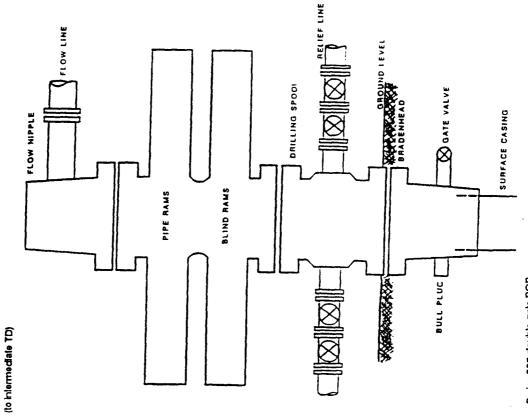
5 1/2" liner - NO CEMENT

OTHER INFORMATION:

- 1) The Basin Fruitland Coal will be completed.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) If lost circulation is encountered sufficient LCM will be added to the mud system to maintain well control.
- 4) This gas is dedicated.
- 5) Anticipated pore pressure for the Fruitland is 700 psi.

Figure #1

TYPICAL B.O.P.E. INSTALLATION FOR A FRUITLAND COAL WELL



Series 900 double gale BOP Naled at 3000 psi working pressure

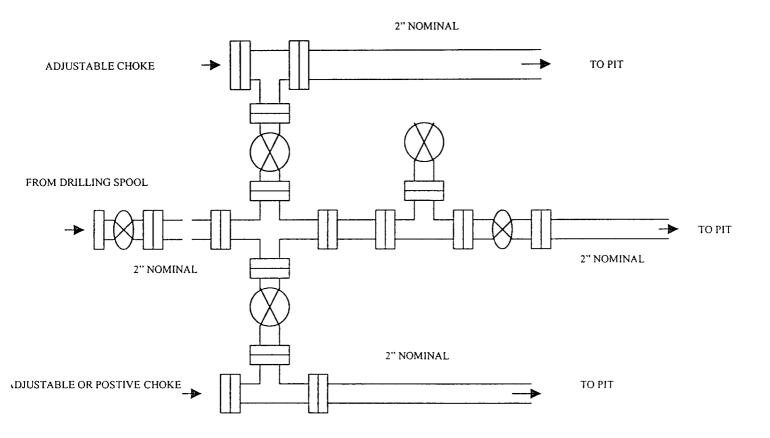
Figure #2

FRUITLAND COAL WELL
TYPICAL BOP CONFIGURATION
7 1/16* 3000 psi (minimum) BOP STACK
(from intermediate to total depth)

Relief Line Bloole Line _11" x 7 1/16" 3000 psi __ubing Head Double Gate BC2 Double Gate 302 - 4 1/15" Gate Valves - 2 3/15" Gate 7alves 9 5/8" # 11" 3000 pst Casing Head -Stripping 'lead fanua! blind pipe pipe pipe Flow Spooltanua Sround Level Farstleupo Check Valve' Bloote Line Kill Line

ENERGEN RESOURCES CORPORATION

Choke Manifold Configuration 2M psi System



Minimum choke manifold installation from surface to Total Depth. 2" minimum, 2000 psi working pressure equipment with two chokes. Form 3163-5 (August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Here form 2450.2 (ADD) for each green and appropriate the second second well.

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

5. Lease Serial No. NMNM30015

6. If Indian, Allottee or Tribe Name

apandoned wei	i. Use form 3160-3 (Ar	וטי sucn pi (ע־	oposais.		Ź		
SUBMIT IN TRI	PLICATE - Other instru	ctions on reve	erse side.		7. If Unit or CA/Agree	ment, Name and/or No.	
1. Type of Well ☐ Oil Well ☐ Gas Well ☒ Oth	er: COAL BED METHAN	lE			8. Well Name and No. CARRACAS 30B	13	
2. Name of Operator Contact: VICKI DONAGH ENERGEN RESOURCES CORPORATION E-Mail: vdonaghe@				m	9. API Well No. 30-039-29278-00-X1		
3a. Address 2198 BLOOMFIELD HIGHWA FARMINGTON, NM 87401	Υ		(include area cod 5.6800 Ext: 23 .6112		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL		
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	on)			11. County or Parish,	and State	
Sec 30 T32N R4W SWSW 80	OFSL 70FWL				RIO ARRIBA CO	DUNTY, NM	
12. CHECK APPR	ROPRIATE BOX(ES) T	O INDICATE	NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION			ТҮРЕ (OF ACTION	. ,		
□ Notice of Intent Subsequent Report □ Final Abandonment Notice	Subsequent Report Casing Casing Repair		oen ture Treat Construction and Abandon Back	☐ Reclam	olete arily Abandon	Water Shut-Off Well Integrity Other Change to Original A PD	
testing has been completed. Final Al determined that the site is ready for f Per your request, this is the lo 8-3/4" - no logs on intermedia 6-1/4" - mud log on drill out	inal inspection.) gging program for this wate string		equiterients, men	É	APR 2006 PORTONIA SINV. PORTONIA SINV.	3 19 5 6	
14. Thereby certify that the foregoing is Comm Name (Printed/Typed) NATHAN	Electronic Submission For ENERGEN RESC itted to AFMSS for proces	OURCES CORP	OŘATION, sení NNE BRUMLEY	ell Information t to the Farmin	n System ngton 4 (05AXB0490SE)		
Name (Truncas Typea) NATIAN	- Jimitti		THE DRILL	ING ENGINE	ILK		
Signature (Electronic S	Submission)		Date 12/07/	2004			
	THIS SPACE F	OR FEDERA	L OR STATE	OFFICE U	SE		
Approved By	mlieuz)		Title A	FM		Dat 14/06	
Conditions of approval, if any, are attache ertify that the applicant holds legal or equinch would entitle the applicant to conditions.	uitable title to those rights in t uct operations thereon.	he subject lease	Office #	70		· .	
itle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it statements or representations:	a crime for any po	rson knowingly a	nd willfully to n	nake to any department or	agency of the United	

Form 3160*5 (August 1999)

UNITED STATES

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

FORM APPROVED OMB NO. 1004-0135 Expires: November 30, 2000

5. Lease Serial No. NMNM30015 **SUNDRY NOTICES AND REPORTS ON WELLS** Do not use this form for proposals to drill or to re-enter an 6. If Indian, Allottee or Tribe Name

aband	oned well.	Use form 3160-3 (AF	D) for suc	ch proposa	is.		o. If motan, thouse	,, 11100 IVA	
SUBM	IT IN TRIP	LICATE - Other instru	ctions on	reverse si	de.		7. If Unit or CA/Agre	ement, Nan	ne and/or No.
1. Type of Well Oil Well Gas W	Vell ► Othe	r: COAL BED METHAN					8. Well Name and No CARRACAS 30B		
2. Name of Operator		Contact:	VICKI DO	NAGHEY		· · · · · · · · · · · · · · · · · · ·	9. API Well No. 30-039-29278-		
ENERGEN RESOUI	RCES COR	PORATION		onaghe@ene	-				
3a. Address 3b. Phone N 2198 BLOOMFIELD HIGHWAY Ph: 505.32 FARMINGTON, NM 87401 Fx: 505.32			5.325.6800			10. Field and Pool, or Exploratory BASIN FRUITLAND COAL			
4. Location of Well (Foo.	tage, Sec., T.,	R., M., or Survey Description	on)				11. County or Parish,	and State	
Sec 30 T32N R4W \$	SWSW 800	FSL 70FWL					RIO ARRIBA C	OUNTY,	NM
12. CHE	CK APPRO	OPRIATE BOX(ES) T	O INDICA	ATE NATU	RE OF N	OTICE, R	EPORT, OR OTHE	R DATA	<u> </u>
TYPE OF SUBMISS	SION				TYPE OF	ACTION			
□ Notice of Intent		□ Acidize		□ Deepen □		□ Product	☐ Production (Start/Resume)		ter Shut-Off
-		☐ Alter Casing		Fracture Tre	at	□ Reclam	ation	□ Wel	ll Integrity
Subsequent Report		☐ Casing Repair	_	New Constru		□ Recomp	olete	⊠ Oth	er se to Original A
☐ Final Abandonment	t Notice	Change Plans	_	□ Plug and Abandon □		_	arily Abandon	PD	e to Original A
		Convert to Injection	· 🗆	Plug Back		□ Water I	Disposal		
The USFS requeste pipeline changes.	ed a road ch	ange on this well (Cari	racas 30B	#13). The a	ttachmen	t shows the	e road and		
14. Thereby certify that the	foregoing is t		#540 7 0		51.14.147.11				
	Commit	Electronic Submission For ENERGEN RES ted to AFMSS for proce	OURCES C	ORPOŘATIC	N, sent to	o the Farmi	naťon		
Name (Printed/Typed)				Title		CTION AS			•
Signature	(Electronic Su	ubmission)		Date	11/18/20	004			
		THIS SPACE F	OR FEDI	ERAL OR	STATE (OFFICE U	SE		
Approved By		mlier (<u> </u>	Title	Al	Fy	,	D	al /4/86
Conditions of approval, if any ertify that the applicant hold which would entitle the applic	s legal or equi cant to conduc	table title to those rights in to operations thereon.	he subject le	ase Office		70			· /
Fitle 18 U.S.C. Section 1001	and Title 43 U	J.S.C. Section 1212, make it	a crime for	any person kn	wingly and	willfully to n	nake to any department	or agency o	f the United

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.