Form 3160-3 (August 1999)

*(Instructions on Reverse)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0136 Expires: November 30, 2000

APPLICATION FOR PERMIT TO	O DRILL C	R REENTE	R COL	5.	Lease Seri		
la. Type of Work X DRILL	REENTER	ER X Single Zone Multiple Zone			6. If Indian, Allotee or Tribe Name Jicarilla Apache 7. Unit or CA Agreement Name and No.		
/2. Name of Operator Energen Resources Corporation			No. (include area co	8.	Jicari	ne and Well	
 3a. Address 2198 Bloomfield Highway, Farmington, NM 87 4. Location of Well (Report location clearly and in accordance w At surface 1040' FNL, 1330' FWL 	401 with any State		505) 325-6800	10.	B1 anco	クー <u>ク ろ</u> Pool, or Ex Mesaver	
At proposed prod. zone				4	∠ Sec. 19, T26N, R3W, N.M.P.M		
14. Distance in miles and direction from nearest town or post office* 14 miles northwest of				Ri	County or o Arrit	oa	13.State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)		16.No. of Acre	2508.2	17. Spacir	ng Unit dec	licated to th	nis well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 400		19. Proposed D	Pepth 82'	20.BLM	BIA Bon	d No. on fil	e
21. Elevations (Show whether DF, KDB, RT, GL, etc.			te date work will sta	rt*	23. Estin	nated durati	
		Attachments		1 4 - 41 - 5 -			Days
 The following, completed in accordance with the requirements of O Well plat certified by a registered surveyor. A Drilling Plan A Surface Use Plan (if the location is on National Forest Syster SUPO shall be filed with the appropriate Forest Service Office) 	m Lands, the	4. Bond Item 20 a 5. Oper 6. Such	d to cover the operat	ions unless	covered b		
25. Signuature	Na	ime (<i>Printed/Ty</i>	ped)			Date	
- Now Archam	Don Graham					<u> </u>	11/9/01
Title Production Superintendent							
Approved by (Signautre) Name (Printed/Typed) Name (Printed/Typed)			ped)			Date JAI	2 9 2002
Title Cesst. Field Mgr.		fice					
Application approval does not warrant or certify that the applican conduct operations thereon. Conditions of approval, if any, are attached.	nt holds legal	or equitable tit	le to those rights in	the subject	lease whi	ch would e	ntitle the applicant to
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, ma States any false, fictitious or fraudulent statements or representation	ike it a crime	for any person natter within its	knowlingly and willfu	ılly to mak	e to any de	partment o	r agency of the United

DISTRICT 1 PO Bex 1980, Hobbs, NM 88241-1980

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

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

District IV PO Box 2088, Santa Fe, NM 87504-2088 State of New Michileo Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Revised February 21, 1994 Instructions on back mit to Appropriate District Office

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

____ AMENDED REPORT

				WELL	LOCAT	ION AND ,	ACREAGE DED	ICAI	TION PL	_AT		
7		PI Numbe	_		*Pool Coo 72319	}		Blar	'Pool Nam CO Mesa		, ,	
30-039-26916 7231 Property Code 7.916					Property Name JICARILLA 98					°Well Number 4A		
	OGRID N			E	 ENERGE	•	or Name CES CORPORA	.TIOI	٧			levation 7027
L						¹⁰ Surface	Location					
U.	or lat no.	Section 19	Township 26N	Range 3W	Lat Idn	Feet from the	North/South line		et from the 1330	East/We WE		County RIO ARRIBA
		Castina	11 Township	Ottom Range	Hole L	_ocation	If Different		om Surf	ace East/We	st lies	County
"	or lat no.	Section	Township	Honge	Euc 101	reet from the	Marchy South Time		et nom tie	East/We	st line	Country
12 Cec	dicated Acres	مهجائر	320	<u></u>		13 Joint or Infill	¹⁴ Consolidation Code	¹⁵ Onde	n Na.	<u> </u>		<u></u>
N	D ALLOW	ABLE W	ILL BE /	ASSIGNEI NON-ST	D TO TH ANDARD	IS COMPLET UNIT HAS (ION UNTIL ALL BEEN APPROVED	INT	ERESTS H THE DIVI	HAVE BE SION	EN CON	ISOL IDATED
.00.0				20.00	19 -	26	40.00	0.00.	I hereby contained to the last signature. Signature. Don Printed Production Title. Date 18 SURV I hereby shown or notes of	y centify in the property of my set	that the is true an knowledge how a man Superior CERTI at the we was plott veys made	FICATION information d complete e and belief intendant FICATION 11 location ed from field by me on under same is true
5280	L0:	T 3 						528	and corre	Date: Sand Seal	DEPTEMS OF Profess EDWA MEXICO	by belief. BER 4, 2001 Sional Surveyor
	<u>1097</u>	. <u>58 '</u>	132	0.00'		. 26	40.00		JAS. Centif	oN C	E. EI	WARDS 15269

ENERGEN RESOURCES CORPORATION JICARILLA 98 #4A 1040' FNL & 1330' FWL, SECTION 19, T26N, R3W, N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO **A**337 Creek Tapicito =7246 Cauron

OPERATIONS PLAN

WELL NAME: Jicarilla 98 #4A

LOCATION: 1040' FNL, 1330' FWL, Section 19, T26N, R3W, Rio Arriba, New Mexico

FIELD: Blanco Mesaverde ELEVATION: 7027' GL

FORMATION TOPS:

Surface	San Jose	Huerfanito Benonite	4154
Nacimiento	2110	Cliff House	5386
Ojo Alamo	3042	Menefee	5473
Kirtland	3422	Point Lookout	5832
Fruitland	3530		
Pictured Cliffs	3690		
Lewis	3803	Total Depth	6282

LOGGING PROGRAM:

Open Hole Logs:

Surface to intermediate: None

Inter TD to total depth: Temp/HRI/CNT, LDT/GR

Mud Logs:

3600' 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. Air/mist from intermediate casing point to total depth.

CASING PROGRAM:

<u>HOLE SIZE</u>	<u>DEPTH</u>	CSG SIZE	<u>WT.</u>	<u>GRADE</u>
12-1/4"	200'	9-5/8"	32.3#	H-40
8-3/4"	4003'	7"	20#	J-55
6-1/4"	3853'-6282	4-1/2"	10.5#	J-55

TUBING PROGRAM:

6200'

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.

CEMENTING:

9 5/8 surface casing - Cement with 110 sks Class B Cement with 1/4" Flocele/sx 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 with centralizers on the first three joints..

7" intermediate casing - cement with 405 sks 65/35 Class B Poz with 6% gel, 2% calcium chloride, 10% gilsonite, and 1/4# flocele/sk. Tail with 100 sks Class B w/2% calcium chloride, 10% gilsonite and 1/4# flocele/sk. (903 cu. Ft. of slurry, 50% 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. 8 bow spring centralizers spaced every 2nd joint off bottom. Two turbolating centralizers at the base of the Ojo Alamo.

4 1/2 Production Liner

Cement with 300 sks 50/50 poz with 2% gel, 5 PPS gilsonite, .4% halad - 9 and 1/4# flocele/sk (374 cu. ft., 50% excess to circulate liner top). WOC 18 hrs prior to completion.

Cement nose guide shoe on bottom with float collar on top of shoe joint. Liner hanger will have a neopreme packoff on top.

OTHER INFORMATION:

- 1) The Blanco Mesaverde completed.
- 2) No abnormal temperatures or pressures are anticipated.
- 3) Anticipated pore pressure for the Mesa Verde is 800, Pictured Cliffs is 600 and the Fruitland 500 psi.
- 4) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 5) This gas is dedicated.