

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. MM 30014
2. Name of Operator Energen Resources Corporation		6. If Indian, Allottee or Tribe Name
3a. Address 2198 Bloomfield Highway, Farmington, NM 87401	3b. Phone No. (include area code) 505.325.6800	7. If Unit or CA/Agreement, Name and/or No. 070 FARMINGTON NM
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1450' FSL, 990' FWL SW/4 (L) S16, T32N, R4W		8. Well Name and No. Carracas 16B #12
		9. API Well No. 30-039-24327
		10. Field and Pool, or Exploratory Area Basin Fruitland Coal
		11. County or Parish, State Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Energen Resources proposes a recompleation of the Carracas 16B #12 in the Basin Fruitland Coal by drilling a horizontal lateral off the existing vertical wellbore as indicated on the attached C-102 and directional wellplan. A whipstock will be set at 3461' +/- (TVD) and a window milled in the existing 5 1/2" casing. The lateral will be drilled to 5174' (MD), 3671' (TVD). This will be an open hole completion. 2 3/8" tubing will be landed at 3670' (TVD) in the 5 1/2" casing.



CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

HOLD C104 FOR directional survey

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Nathan Smith	Title Drilling Engineer
<i>Nathan Smith</i>	Date 3/20/06

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by <i>Mark Hobart</i>	Title PETE ENG	Date 3/23/06
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office BLM - FFD	

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.

NR000

DISTRICT I
1625 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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

2006 MAR 20 PM 3 54

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name 070 FARMINGTON NM BASIN FRUITLAND COAL	
4 Property Code		5 Property Name CARRACAS 16 B			6 Well Number 12
7 OGRID No.		8 Operator Name ENERGEN RESOURCES CORPORATION			9 Elevation 6804'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	16	32N	4W		1450'	SOUTH	990'	WEST	RIO ARRIBA

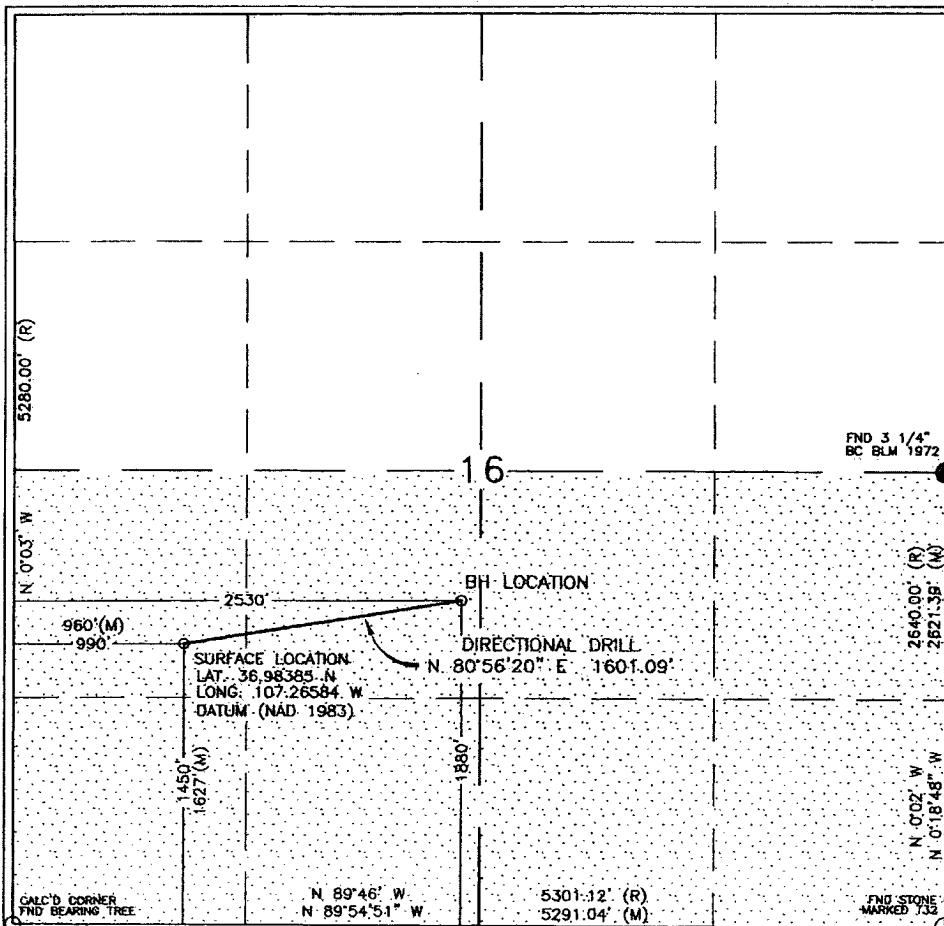
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	16	32N	4W		1880'	SOUTH	2530'	WEST	RIO ARRIBA

12 Dedicated Acres 319.17 Acres - (S/2)		13 Joint or Infill		14 Consolidation Code		15 Order No.			
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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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Nathan Smith

Printed Name

Drilling Engineer

Title

3/13/06

Date

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.

FEBRUARY 07, 2006

Date of Survey

Signature and Seal of Registered Surveyor.

DAVID RUSSELL

Certificate Number

10201



Energen Resources Corporation

**Rio Arriba, NM
Sec.16 T32N-R4W
Carracas 16B-12
Wellbore #1**

Plan: Plan #1

Standard Planning Report

13 March, 2006

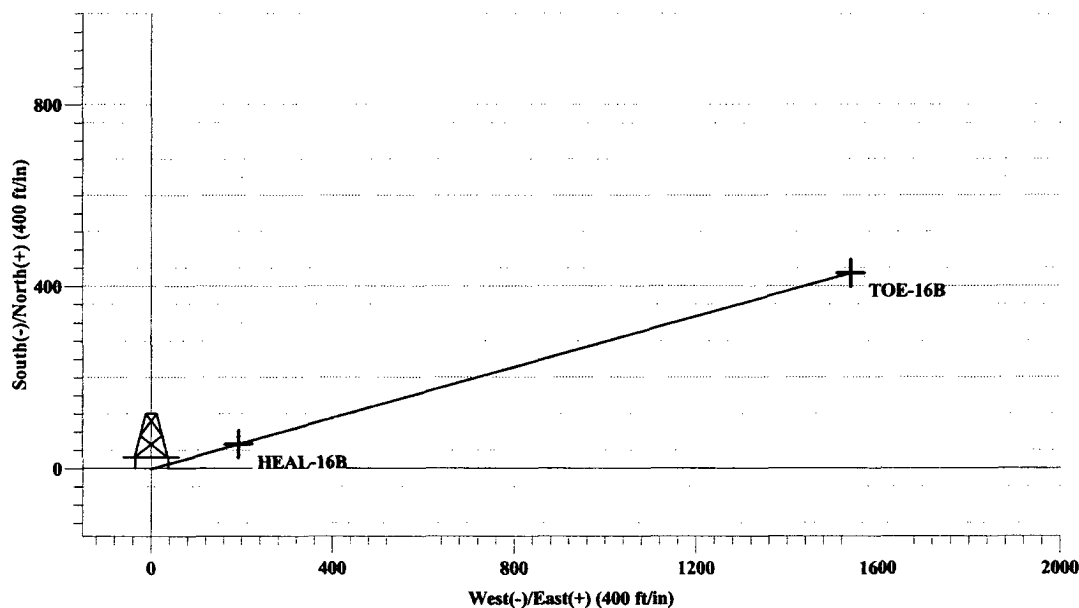


Azimuths to Grid North
 M True North: 0.61°
 Magnetic North: 10.96°
 Magnetic Field
 Strength: 51531.9nT
 Dip Angle: 63.90°
 Date: 3/13/2006
 Model: IGRF200510

Energen Resources Corp.

Carracas 16B-12
 Sec.16 T32N-R4W
 RIO ARRIBA Co., NM

PATHFINDER
 ENERGY SERVICES

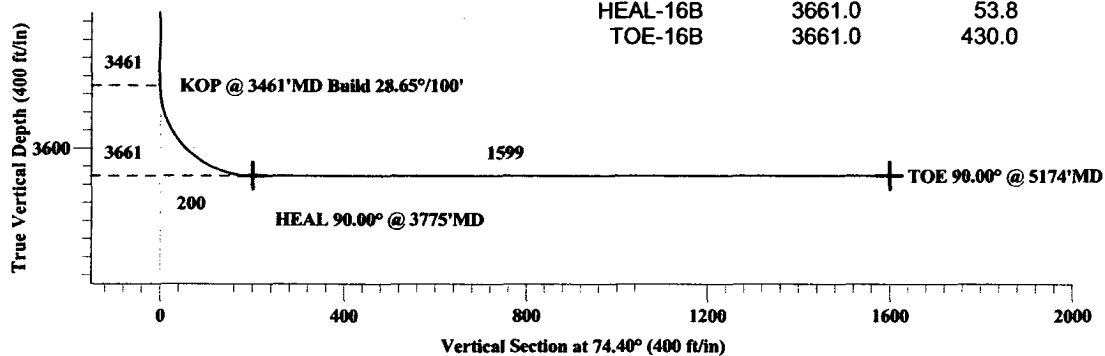


SURFACE LOCATION: Carracas 16B-12

1450'FSL 990'FWL

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
HEAL-16B	3661.0	53.8	192.6	Point
TOE-16B	3661.0	430.0	1540.0	Point



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	3461.0	0.00	0.00	3461.0	0.0	0.0	0.00	0.00	0.0	
3	3775.2	90.00	74.40	3661.0	53.8	192.6	28.65	74.40	200.0	HEAL-16B
4	5174.1	90.00	74.40	3661.0	430.0	1540.1	0.00	0.00	1599.0	TOE-16B

Plan: Plan #1 (Carracas 16B-12/Wellbore #1)

Created By: Frank C. Scardino Date: 3/13/2006

Database: EDM 2003.14 Single User Db
 Company: Energen Resources Corporation
 Project: Rio Arriba, NM
 Site: Sec.16 T32N-R4W
 Well: Carracas 16B-12
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well Carracas 16B-12
 TVD Reference: WELL @ 0.0ft (Original Well Elev)
 MD Reference: WELL @ 0.0ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project	Rio Arriba, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Sec.16 T32N-R4W				
Site Position:		Northing:	2,178,999.25ft	Latitude:	36° 59' 1.860 N
From:	Lat/Long	Easting:	1,343,721.02ft	Longitude:	107° 15' 57.024 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-0.61 °

Well	Carracas 16B-12					
Well Position	+N/-S	0.0 ft	Northing:	2,178,999.25 ft	Latitude:	36° 59' 1.860 N
	+E/-W	0.0 ft	Easting:	1,343,721.02 ft	Longitude:	107° 15' 57.024 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	0.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	3/13/2006	10.35	63.90	51,532

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	74.40

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,461.0	0.00	0.00	3,461.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,775.2	90.00	74.40	3,661.0	53.8	192.6	28.65	28.65	0.00	74.40	HEAL-16B
5,174.1	90.00	74.40	3,661.0	430.0	1,540.1	0.00	0.00	0.00	0.00	TOE-16B

Database: EDM 2003.14 Single User Db
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 Project: Rio Arriba, NM
 Site: Sec.16 T32N-R4W
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 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well Carracas 16B-12
 TVD Reference: WELL @ 0.0ft (Original Well Elev)
 MD Reference: WELL @ 0.0ft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,461.0	0.00	0.00	3,461.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP @ 3461'MD Build 28.65°/100'									
3,480.0	5.44	74.40	3,480.0	0.2	0.9	0.9	28.65	28.65	0.00
3,500.0	11.17	74.40	3,499.8	1.0	3.7	3.8	28.65	28.65	0.00
3,520.0	16.90	74.40	3,519.1	2.3	8.3	8.6	28.65	28.65	0.00
3,540.0	22.63	74.40	3,538.0	4.1	14.8	15.4	28.65	28.65	0.00
3,560.0	28.36	74.40	3,556.0	6.5	23.1	24.0	28.65	28.65	0.00
3,580.0	34.09	74.40	3,573.1	9.2	33.1	34.4	28.65	28.65	0.00
3,600.0	39.82	74.40	3,589.1	12.5	44.7	46.4	28.65	28.65	0.00
3,620.0	45.55	74.40	3,603.8	16.1	57.7	59.9	28.65	28.65	0.00
3,640.0	51.28	74.40	3,617.0	20.1	72.1	74.9	28.65	28.65	0.00
3,660.0	57.01	74.40	3,628.8	24.5	87.7	91.1	28.65	28.65	0.00
3,680.0	62.74	74.40	3,638.8	29.1	104.4	108.4	28.65	28.65	0.00
3,700.0	68.47	74.40	3,647.0	34.0	121.9	126.6	28.65	28.65	0.00
3,720.0	74.20	74.40	3,653.4	39.1	140.2	145.5	28.65	28.65	0.00
3,740.0	79.93	74.40	3,657.9	44.4	158.9	165.0	28.65	28.65	0.00
3,760.0	85.66	74.40	3,660.4	49.7	178.0	184.9	28.65	28.65	0.00
3,775.2	90.00	74.40	3,661.0	53.8	192.6	200.0	28.65	28.65	0.00
HEAL 90.00° @ 3775'MD - HEAL-16B									
3,800.0	90.00	74.40	3,661.0	60.5	216.6	224.8	0.00	0.00	0.00
3,900.0	90.00	74.40	3,661.0	87.4	312.9	324.8	0.00	0.00	0.00
4,000.0	90.00	74.40	3,661.0	114.2	409.2	424.8	0.00	0.00	0.00
4,100.0	90.00	74.40	3,661.0	141.1	505.5	524.8	0.00	0.00	0.00
4,200.0	90.00	74.40	3,661.0	168.0	601.8	624.8	0.00	0.00	0.00
4,300.0	90.00	74.40	3,661.0	194.9	698.1	724.8	0.00	0.00	0.00
4,400.0	90.00	74.40	3,661.0	221.8	794.5	824.8	0.00	0.00	0.00
4,500.0	90.00	74.40	3,661.0	248.7	890.8	924.8	0.00	0.00	0.00
4,600.0	90.00	74.40	3,661.0	275.6	987.1	1,024.8	0.00	0.00	0.00
4,700.0	90.00	74.40	3,661.0	302.5	1,083.4	1,124.8	0.00	0.00	0.00
4,800.0	90.00	74.40	3,661.0	329.4	1,179.7	1,224.8	0.00	0.00	0.00
4,900.0	90.00	74.40	3,661.0	356.3	1,276.0	1,324.8	0.00	0.00	0.00
5,000.0	90.00	74.40	3,661.0	383.2	1,372.4	1,424.8	0.00	0.00	0.00
5,100.0	90.00	74.40	3,661.0	410.1	1,468.7	1,524.8	0.00	0.00	0.00
5,174.1	90.00	74.40	3,661.0	430.0	1,540.1	1,599.0	0.00	0.00	0.00
TOE 90.00° @ 5174'MD - TOE-16B									

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
TOE-16B - plan hits target - Point	0.00	360.00	3,661.0	430.0	1,540.0	2,179,429.25	1,345,261.02	36° 59' 6.273 N	107° 15' 38.101 W
HEAL-16B - plan hits target - Point	0.00	360.00	3,661.0	53.8	192.6	2,179,053.04	1,343,913.65	36° 59' 2.412 N	107° 15' 54.657 W

Database: EDM 2003.14 Single User Db
Company: Energen Resources Corporation
Project: Rio Arriba, NM
Site: Sec.16 T32N-R4W
Well: Carracas 16B-12
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Carracas 16B-12
TVD Reference: WELL @ 0.0ft (Original Well Elev)
MD Reference: WELL @ 0.0ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,461.0	3,461.0	0.0	0.0	KOP @ 3461'MD Build 28.65°/100'
3,775.2	3,661.0	53.8	192.6	HEAL 90.00° @ 3775'MD
5,174.1	3,661.0	430.0	1,540.1	TOE 90.00° @ 5174'MD

Bureau of Land Management Conditions of Approval:

- 1) If cement squeeze work is necessary, contact Matt Halbert of the BLM Farmington Field Office @ (505) 599-6350.**
- 2) Pits must be lined with an impervious material at least 12 mils thick. The pit must be fenced on three (3) sides during workover operations and on the 4th side after the rig moves off location. Pits must be closed within 90 days of completion of the workover operations. Prior to closing the pit the liner must be cut off at mud level.**