

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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 ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMM 30015
2. Name of Operator Energen Resources Corporation		6. If Indian, Allottee or Tribe Name
3a. Address 2198 Bloomfield Hwy, Farmington, NM 87401	3b. Phone No. (include area code) 505-325-6800	7. If Unit or CA/Agreement, Name and/or No. 2007 APR 13 PM 1:13
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) At surface: 1170 fnl, 830 fwl At bottom: 2582 fnl, 932 fwl		8. Well Name and No. Carracas 19 B #4
		9. API Well No. 30-039-26475
		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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

RCVD APR 20 07
OIL CONS. DIV.
DIST. 3

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 recompleat 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 recompleat 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.)

Due to a Gyro Survey and OCL being ran on the Carracas 19 B #4 prior to commencing with the approved wellwork recompleat horizontal lateral, Energen Resources plans to make the following changes:

-Change the bottom hole location (BHL) to 2582 fnl, 932 fwl and drill with an azimuth of 180 degrees.

This change is needed for proper whipstock orientation and torque and drag issues on the drill string due to the original way the well was drilled in 8/2000.

The original sundry was approved by the USFS and BLM on 4/6/2007.

A revised C-102 and directional plan are attached.

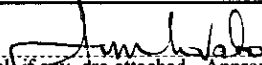
CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

HOLD GIVE FOR DIRECTIONAL SURVEY

Verbal approved given to Nathan Smith on 4/13/07

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Nathan Smith	Title Drilling Engineer
	Date 4/12/07

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 	Title Petr. Eng.	Date 4/19/07
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.		

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.

NMOC

District I

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 October 12, 2005

Submit to Appropriate District Office

2007 APR 12 PM 1:11 State Lease - 3 Copies

Fee Lease - 3 Copies

RECEIVED
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT 210 FARMINGTON NM

'API Number 30-039-26475	'Pool Code 71629	'Pool Name Basin Fruitland Coal
'Property Code	'Property Name Carracas 19 B	'Well Number #4
'OGRID No. 162928	'Operator Name Energen Resources Corporation	'Elevation 7401'

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
D	19	32N	04W		1170'	North	830'	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
C	19	32N	04W		2582'	North	932'	West	Rio Arriba

'Dedicated Acres 300.52 W/2	'Joint or Infill	'Consolidation Code	'Order No.
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RCVD APR 20 07
OIL CONS. DIV
DIST. 3

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.

1156.98

1320.00

2640.00

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Nathan Smith</i> 4/12/2007 Signature Date Nathan Smith Printed Name
	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. June 9, 2000 Date of Survey Signature and Seal of Professional Surveyor: Original survey conducted and recorded by Edgar L. Risenhoover 5979 Certificate Number

Energen Resources

Carson Nat'l Forest: S19, T32N, R4W

Carracas Mesa

Carracas 19 B #4

Carracas 19 B #4 ST

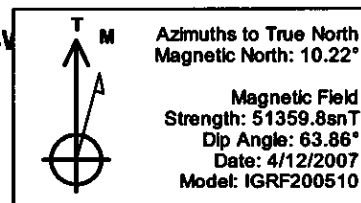
Plan: Plan #2

Energen Resources – Final Design

12 April, 2007



Project: Carson Nat'l Forest: S19, T32N, R4W
Site: Carracas Mesa
Well: Carracas 19 B #4
Wellbore: Carracas 19 B #4 ST-Final
Plan: Plan #1 (Carracas 19 B #4/Carracas 19 B #4 ST-Final)

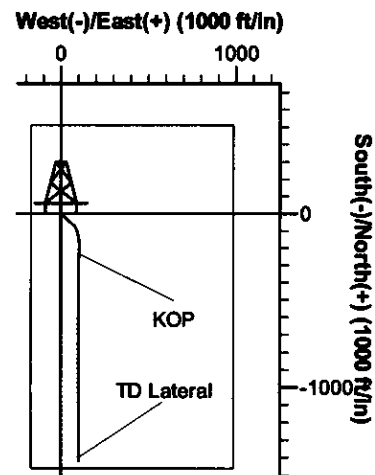
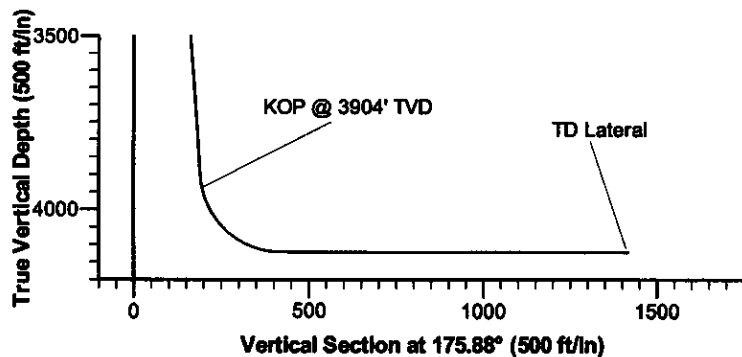


PROJECT DETAILS: Carson Nat'l Forest: S19, T32N, R4W				
Geodetic System: US State Plane 1983				
Datum: North American Datum 1983				
Ellipsoid: GRS 1980				
Zone: New Mexico Western Zone				
System Datum: Mean Sea Level				

SURFACE LOCATION	
Easting:	2878387.80
Northing:	2175094.15

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	200.0	0.28	251.20	200.0	-0.2	-0.5	0.14	251.20	0.1
3	400.0	0.31	235.36	400.0	-0.6	-1.4	0.04	-82.30	0.5
4	600.0	1.40	118.01	600.0	-2.1	0.3	0.78	-127.33	2.1
5	800.0	2.51	125.77	799.9	-5.8	6.1	0.57	17.34	6.2
6	1000.0	2.98	131.08	999.6	-11.8	13.5	0.27	31.30	12.7
7	1200.0	3.41	134.43	1199.3	-19.3	21.7	0.23	25.35	20.9
8	1400.0	3.80	135.73	1398.9	-28.2	30.6	0.20	12.39	30.4
9	1600.0	3.92	135.45	1598.5	-37.9	40.0	0.06	-8.71	40.6
10	1800.0	3.86	128.45	1798.0	-46.9	50.1	0.24	-100.94	50.4
11	2000.0	3.58	130.83	1997.6	-55.2	60.1	0.16	152.95	59.4
12	2200.0	3.25	133.73	2197.2	-63.2	68.9	0.18	153.47	68.0
13	2400.0	3.44	135.72	2396.9	-71.4	77.2	0.11	32.28	76.8
14	2600.0	3.92	150.70	2596.5	-81.7	84.7	0.54	71.15	87.6
15	2800.0	4.63	159.66	2795.9	-95.2	90.9	0.49	47.82	101.5
16	3000.0	5.39	169.46	2995.2	-112.0	95.4	0.57	53.40	118.6
17	3200.0	5.20	167.65	3194.3	-130.1	99.0	0.13	-139.36	136.9
18	3400.0	4.63	170.67	3393.6	-146.9	102.3	0.31	157.04	153.9
19	3600.0	4.15	170.89	3593.0	-162.0	104.7	0.24	178.11	169.1
20	3800.0	3.87	182.36	3792.5	-175.9	105.6	0.43	115.27	183.1
21	3900.0	3.70	192.01	3892.3	-182.5	104.8	0.66	109.55	189.5
22	3911.7	3.70	192.01	3904.0	-183.2	104.6	0.00	0.00	190.2
23	4259.4	90.00	180.00	4120.0	-413.3	101.7	24.85	-12.03	419.6
24	5259.4	90.00	180.00	4120.0	-1413.3	101.7	0.00	0.00	1417.0

End Gyro Survey



Energen
Energen Resources - Design



Company:	Energen Resources	Local Co-ordinate Reference:	Site Carracas Mesa
Project:	Carson Nat'l Forest: S19, T32N, R4W	TVD Reference:	KB @ 7416.0ft (Drilling Rig)
Site:	Carracas Mesa	MD Reference:	KB @ 7416.0ft (Drilling Rig)
Well:	Carracas 19 B #4	North Reference:	True
Wellbore:	Carracas 19 B #4 ST-Final	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Project	Carson Nat'l Forest: S19, T32N, R4W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Carracas Mesa			
Site Position:		Northing:	2,175,094.15 ft	Latitude: 36° 58' 34.248 N
From:	Lat/Long	Easting:	2,878,387.80 ft	Longitude: 107° 18' 6.048 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence: 0.32 °

Well	Carracas 19 B #4			
Well Position	+N/-S	0.0 ft	Northing:	2,175,094.15 ft
	+E/-W	0.0 ft	Easting:	2,878,387.80 ft
Position Uncertainty	0.0 ft		Wellhead Elevation:	7,401.0 ft
			Ground Level:	7,401.0 ft

Wellbore	Carracas 19 B #4 ST-Final				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/12/2007	10.22	63.86	51,360

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	175.88

Survey Tool Program	Date 4/12/2007			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	5,259.4	Plan #1 (Carracas 19 B #4 ST-Final)	MWD	MWD - Standard

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
0.0	0.0	0.00	0.00	0.00	0.0	2,175,094.15	2,878,387.80
100.0	100.0	0.14	251.20	0.14	0.0	2,175,094.11	2,878,387.68
200.0	200.0	0.28	251.20	0.14	0.1	2,175,093.99	2,878,387.33
300.0	300.0	0.29	242.97	0.01	0.3	2,175,093.79	2,878,386.87
400.0	400.0	0.31	235.36	0.01	0.5	2,175,093.52	2,878,386.42
500.0	500.0	0.65	130.16	0.34	1.1	2,175,093.00	2,878,386.64
600.0	600.0	1.40	118.01	0.76	2.1	2,175,092.07	2,878,388.16
700.0	699.9	1.95	122.99	0.55	3.8	2,175,090.58	2,878,390.68
800.0	799.9	2.51	125.77	0.56	6.2	2,175,088.39	2,878,393.90
900.0	899.8	2.74	128.65	0.23	9.2	2,175,085.63	2,878,397.56
1,000.0	999.6	2.98	131.08	0.24	12.7	2,175,082.45	2,878,401.41
1,100.0	1,099.5	3.19	132.87	0.21	16.6	2,175,078.87	2,878,405.43

Energen
Energen Resources - Design



Company:	Energen Resources	Local Co-ordinate Reference:	Site Carracas Mesa
Project:	Carson Nat'l Forest: S19, T32N, R4W	TVD Reference:	KB @ 7416.0ft (Drilling Rig)
Site:	Carracas Mesa	MD Reference:	KB @ 7416.0ft (Drilling Rig)
Well:	Carracas 19 B #4	North Reference:	True
Wellbore:	Carracas 19 B #4 ST-Final	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
1,200.0	1,199.3	3.41	134.43	0.21	20.9	2,175,074.92	2,878,409.61
1,300.0	1,299.1	3.60	135.12	0.20	25.5	2,175,070.64	2,878,413.97
1,400.0	1,398.9	3.80	135.73	0.20	30.4	2,175,066.07	2,878,418.52
1,500.0	1,498.7	3.86	135.59	0.06	35.5	2,175,061.32	2,878,423.22
1,600.0	1,598.5	3.92	135.45	0.06	40.6	2,175,056.50	2,878,428.00
1,700.0	1,698.2	3.89	131.98	-0.04	45.7	2,175,051.83	2,878,432.95
1,800.0	1,798.0	3.86	128.45	-0.02	50.4	2,175,047.49	2,878,438.13
1,900.0	1,897.8	3.72	129.60	-0.14	54.9	2,175,043.36	2,878,443.29
2,000.0	1,997.6	3.58	130.83	-0.14	59.4	2,175,039.28	2,878,448.17
2,100.0	2,097.4	3.41	132.21	-0.16	63.7	2,175,035.27	2,878,452.76
2,200.0	2,197.2	3.25	133.73	-0.16	68.0	2,175,031.33	2,878,457.03
2,300.0	2,297.1	3.35	134.76	0.10	72.3	2,175,027.34	2,878,461.17
2,400.0	2,396.9	3.44	135.72	0.10	76.8	2,175,023.16	2,878,465.37
2,500.0	2,496.7	3.65	143.70	0.21	81.8	2,175,018.47	2,878,469.37
2,600.0	2,596.5	3.92	150.70	0.27	87.6	2,175,012.94	2,878,472.96
2,700.0	2,696.2	4.26	155.55	0.34	94.1	2,175,006.59	2,878,476.21
2,800.0	2,795.9	4.63	159.66	0.37	101.5	2,174,999.44	2,878,479.19
2,900.0	2,895.6	4.99	164.93	0.36	109.6	2,174,991.47	2,878,481.77
3,000.0	2,995.2	5.39	169.46	0.40	118.6	2,174,982.67	2,878,483.81
3,100.0	3,094.7	5.29	168.57	-0.09	127.8	2,174,973.54	2,878,485.83
3,200.0	3,194.3	5.20	167.65	-0.09	136.9	2,174,964.60	2,878,487.57
3,300.0	3,293.9	4.91	169.07	-0.29	145.6	2,174,955.98	2,878,489.39
3,400.0	3,393.6	4.63	170.67	-0.28	153.9	2,174,947.79	2,878,490.91
3,500.0	3,493.3	4.39	170.77	-0.24	161.7	2,174,940.04	2,878,492.22
3,600.0	3,593.0	4.15	170.89	-0.24	169.1	2,174,932.69	2,878,493.45
3,700.0	3,692.7	3.99	176.42	-0.16	176.2	2,174,925.64	2,878,494.28
3,800.0	3,792.5	3.87	182.36	-0.12	183.1	2,174,918.80	2,878,494.39
<u>3,900.0</u>	<u>3,892.3</u>	<u>3.70</u>	<u>192.01</u>	<u>-0.17</u>	<u>189.5</u>	<u>2,174,912.27</u>	<u>2,878,493.62</u>
3,911.7	3,904.0	3.70	192.01	0.00	190.2	2,174,911.53	2,878,493.47
3,920.0	3,912.2	5.72	187.72	24.50	190.9	2,174,910.86	2,878,493.36
3,940.0	3,932.0	10.67	184.10	24.73	193.7	2,174,908.02	2,878,493.11
3,960.0	3,951.5	15.63	182.76	24.80	198.2	2,174,903.48	2,878,492.87
3,980.0	3,970.5	20.59	182.05	24.83	204.4	2,174,897.27	2,878,492.65
4,000.0	3,988.9	25.56	181.61	24.83	212.2	2,174,889.43	2,878,492.45
4,020.0	4,006.5	30.53	181.31	24.84	221.6	2,174,880.04	2,878,492.26
4,040.0	4,023.3	35.50	181.08	24.84	232.4	2,174,869.14	2,878,492.10
4,060.0	4,039.1	40.47	180.90	24.84	244.7	2,174,856.84	2,878,491.95
4,080.0	4,053.7	45.43	180.76	24.84	258.2	2,174,843.22	2,878,491.83
4,100.0	4,067.1	50.40	180.64	24.85	273.0	2,174,828.38	2,878,491.74
4,120.0	4,079.2	55.37	180.53	24.85	288.9	2,174,812.43	2,878,491.66
4,140.0	4,089.8	60.34	180.44	24.85	305.8	2,174,795.50	2,878,491.61
4,160.0	4,098.9	65.31	180.35	24.85	323.5	2,174,777.72	2,878,491.59
4,180.0	4,106.5	70.28	180.28	24.85	342.0	2,174,759.21	2,878,491.59
4,200.0	4,112.4	75.25	180.20	24.85	361.0	2,174,740.11	2,878,491.62

Energen
Energen Resources - Design



Company:	Energen Resources	Local Co-ordinate Reference:	Site Carracas Mesa
Project:	Carson Nat'l Forest: S19, T32N, R4W	TVD Reference:	KB @ 7416.0ft (Drilling Rig)
Site:	Carracas Mesa	MD Reference:	KB @ 7416.0ft (Drilling Rig)
Well:	Carracas 19 B #4	North Reference:	True
Wellbore:	Carracas 19 B #4 ST-Final	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 2003.16 Single User Db

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build ("/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
4,220.0	4,116.6	80.22	180.13	24.85	380.5	2,174,720.57	2,878,491.67
4,240.0	4,119.2	85.19	180.06	24.85	400.3	2,174,700.74	2,878,491.75
4,259.4	4,120.0	90.00	180.00	24.85	419.6	2,174,681.40	2,878,491.84
4,300.0	4,120.0	90.00	180.00	0.00	460.1	2,174,640.77	2,878,492.07
4,400.0	4,120.0	90.00	180.00	0.00	559.8	2,174,540.77	2,878,492.63
4,500.0	4,120.0	90.00	180.00	0.00	659.6	2,174,440.77	2,878,493.19
4,600.0	4,120.0	90.00	180.00	0.00	759.3	2,174,340.77	2,878,493.75
4,700.0	4,120.0	90.00	180.00	0.00	859.1	2,174,240.77	2,878,494.30
4,800.0	4,120.0	90.00	180.00	0.00	958.8	2,174,140.77	2,878,494.86
4,900.0	4,120.0	90.00	180.00	0.00	1,058.5	2,174,040.77	2,878,495.42
5,000.0	4,120.0	90.00	180.00	0.00	1,158.3	2,173,940.78	2,878,495.98
5,100.0	4,120.0	90.00	180.00	0.00	1,258.0	2,173,840.78	2,878,496.54
5,200.0	4,120.0	90.00	180.00	0.00	1,357.8	2,173,740.78	2,878,497.09
5,259.4	4,120.0	90.00	180.00	0.00	1,417.0	2,173,681.42	2,878,497.43

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
Drill Window - plan hits target - Rectangle (sides W1,970.0 H1,156.0 D0.0)	0.00	0.00	0.0	0.0	0.0	2,175,094.15	2,878,387.80	36° 58' 34.248 N	107° 18' 6.048 W

Checked By: _____	Approved By: _____	Date: _____
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