

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

2. Name of Operator
Energen Resources Corporation

3a. Address
2198 Bloomfield Highway, Farmington, NM 87401

3b. Phone No. (include area code)
505-325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1035' fsl, 755' fel, Sec 06, T30N, R04W, N.M.P.M
SE/SE

5. Lease Serial No.

SF-079483

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
Carson #204S

9. API Well No.
30-039-27476

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

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.)

Energen Resources plans to make the following changes to the Carson #204S well:

* Change the drilling plan from a vertical completion to a horizontal drill plan and completion as indicated on the attached C-102 and directional survey plan.

* Change the setting depth of the 7" intermediate casing string from 3858' (TVD) to 3949' (TVD), 4350' (MD) and cement with 590 sks of lead followed by 125 sks of tail (1311.4 cu.ft.).

* Change the 5-1/2" production liner to a 4-1/2", 11.6 ppf, J-55 LT&C production liner and set to 3949' (TVD), 7637' (MD).

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Nathan Smith

Title

Drilling Engineer

Date 6/16/05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Pet. Eng

Date

6/21/05

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

FFO

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.

NMUCD

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code 71629	3 Pool Name BASIN FRUITLAND COAL
4 Property Code	5 Property Name CARSON		6 Well Number 204S
7 OGRID No. 162928	8 Operator Name ENERGEN RESOURCES CORPORATION		9 Elevation 7178'

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
P	6	30N	4W		1035'	SOUTH	755'	EAST	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
A	6	30N	4W		660'	NORTH	660'	EAST	RIO ARRIBA

12 Dedicated Acres 340.98 Acres - (E/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: <u>Nathan Smith</u> Printed Name: <u>Nathan Smith</u> Title: <u>Drilling Engineer</u> Date: <u>6/16/05</u>	
18 SURVEYOR CERTIFICATION		19	
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. Date of Survey: <u>JUNE 13, 2005</u> Signature and Seal of Professional Surveyor: <u>David J. Russell</u> Certificate Number: <u>10201</u>		DAVID J. RUSSELL REGISTERED PROFESSIONAL LAND SURVEYOR NEW MEXICO 12281	

Drilling Plan
Revised June 16, 2005

Carson #204S

General Information

Location	1035' fsl, 755' fel sese S06, T30N, R04W Rio Arriba County, New Mexico
Elevations	7178' GL
Total Depth	3949' (TVD), 7637' (MD)
Formation Objective	Basin Fruitland Coal

Formation Tops

San Jose	Surface
Nacimiento	2028'
Ojo Alamo Ss	3328'
Kirtland Sh	3528' (TVD), 3530' (MD)
Fruitland Fm	3798' (TVD), 3850' (MD)
Intermediate Casing	3949' (TVD), 4350' (MD)
Top Coal	3898' (TVD), 4043' (MD)
Bottom Coal	3978' (TVD)
Pictured Cliffs Ss	3978' (TVD)
Total Depth	3949' TVD, 7637' (MD)

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" 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.

The 6 1/4" wellbore will be drilled with a brine water system from intermediate casing point to total depth.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack 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 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: None
Mud Logs: From Intermediate TD to total depth.
Coring: None
Natural Gauges: Surface casing point and/or every 500' to TD.

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Surface	0'-200'	12 1/4"	9 5/8"	32.3 ppf	H-40 ST&C
Intermediate	200'-3949' (TVD) 4350' (MD)	8 3/4"	7"	23.0 ppf	J-55 LT&C
Production	3949'-3949' (TVD) 3949-7637' (MD)	6 1/4"	4 1/2"	11.6 ppf	J-55 LT&C
Tubing	0'-3925 +/-'		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.

Intermediate 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 and rigid centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended.

Wellhead

11" x 9 5/8" 3000 psi Casing Head. 11" x 7 1/16" 3000 psi Christmas Tree.

Cementing

Surface Casing: 125 sks Std (class B) with 1.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 147.5 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Intermediate Casing: Before cementing, circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout. Depending on wellbore conditions, cement may consist of 590 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and 1/2 #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 125 sks of Standard (Class B) cement with 5 #/sk Gilsonite, and 1/4 #/sk Flocele (15.2 ppg, 1.24 ft³/sk). (1311.4 ft³ of slurry, 100 % excess to circulate to surface). WOC 12 hrs. Test casing to 1200 psi for 30 min.

Liner: NO CEMENT

Other Information

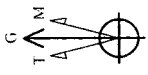
- 1) This well will be an open hole completion.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The intermediate string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir 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 are anticipated, however reservoir pressures may be 1200 psi.
- 5) This gas is dedicated.



Field: Rio Arriba, NM
Site: Carson (204S)
Well: Well #204S
Wellpath: Lateral
Plan: Plan #1

ENERGEN

Azimuths to Grid North
True North: -0.33°
Magnetic North: 10.10°
Magnetic Field
Strength: 51515nT
Dip Angle: 63.78°
Date: 2005-06-14
Model: IGR2005



Section 6 T30N R4W
SHL
1035 FSL, 755 FEL
BHL
660 FNL, 660 FEL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	3375.00	0.00	0.00	3375.00	0.00	0.00	0.00	0.00	0.00	
3	4276.64	90.00	1.38	3949.00	573.83	13.82	9.98	1.38	574.00	
4	7636.60	90.00	1.38	3949.00	3932.82	94.74	0.00	0.00	3933.96	#204S BHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Well #204S	0.00	0.00	2124159.53	659165.45	36°50'11.004"N	107°17'21.984"W	N/A

FORMATION TOP DETAILS

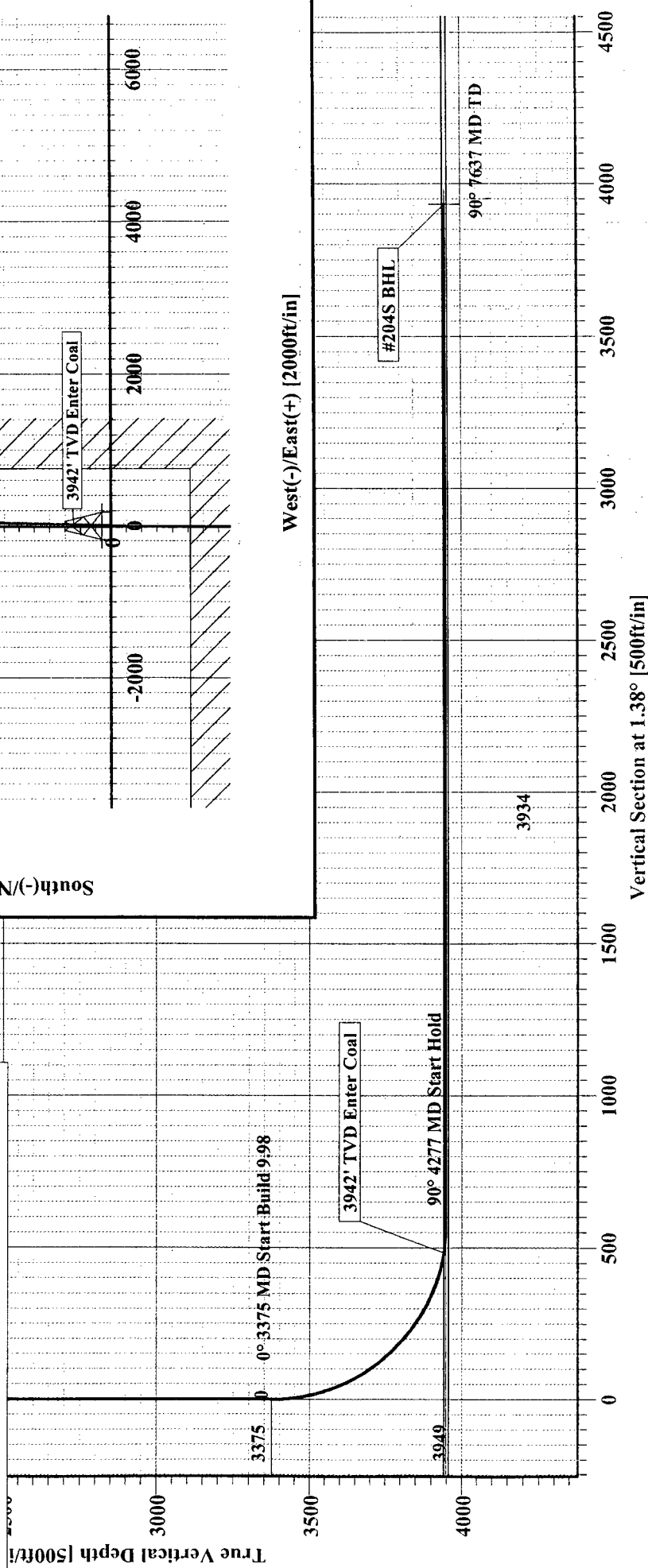
No.	TVDPath	MDPath	Formation
1	3942.00	4186.90	Top of Coal

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
#204S BHL	3949.00	3932.82	95.00	Point

South(-)/North(+) [2000ft/in]

West(-)/East(+) [2000ft/in]





Scientific Drilling Planning Report

Company: ENERGEN
Field: Rio Arriba, NM
Site: Carson (204S)
Well: Well #204S
Wellpath: Lateral

Date: 2005-06-14 Time: 10:20:14 Page: 2
Co-ordinate(NE) Reference: Well: Well #204S, Grid North
Vertical (TVD) Reference: GL 7178.0
Section (VS) Reference: Well (0.00N,0.00E,1.38Azi)
Plan: Plan #1

Section 1 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3375.00	0.00	0.00	3375.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Section 2 : Start Build 9.98

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
3400.00	2.50	1.38	3399.99	0.54	0.01	0.54	9.98	9.98	0.00	0.00
3450.00	7.49	1.38	3449.79	4.89	0.12	4.89	9.98	9.98	0.00	0.00
3500.00	12.48	1.38	3499.01	13.55	0.33	13.56	9.98	9.98	0.00	0.00
3550.00	17.47	1.38	3547.30	26.46	0.64	26.47	9.98	9.98	0.00	0.00
3600.00	22.46	1.38	3594.28	43.52	1.05	43.54	9.98	9.98	0.00	0.00
3650.00	27.45	1.38	3639.60	64.61	1.56	64.62	9.98	9.98	0.00	0.00
3700.00	32.44	1.38	3682.91	89.55	2.16	89.58	9.98	9.98	0.00	0.00
3750.00	37.43	1.38	3723.89	118.17	2.85	118.20	9.98	9.98	0.00	0.00
3800.00	42.42	1.38	3762.22	150.24	3.62	150.28	9.98	9.98	0.00	0.00
3850.00	47.41	1.38	3797.61	185.52	4.47	185.57	9.98	9.98	0.00	0.00
3900.00	52.40	1.38	3829.80	223.75	5.39	223.81	9.98	9.98	0.00	0.00
3950.00	57.40	1.38	3858.54	264.63	6.38	264.71	9.98	9.98	0.00	0.00
4000.00	62.39	1.38	3883.62	307.86	7.42	307.95	9.98	9.98	0.00	0.00
4050.00	67.38	1.38	3904.84	353.10	8.51	353.21	9.98	9.98	0.00	0.00
4100.00	72.37	1.38	3922.04	400.02	9.64	400.14	9.98	9.98	0.00	0.00
4150.00	77.36	1.38	3935.09	448.26	10.80	448.39	9.98	9.98	0.00	0.00
4200.00	82.35	1.38	3943.89	497.45	11.98	497.59	9.98	9.98	0.00	0.00
4250.00	87.34	1.38	3948.38	547.21	13.18	547.37	9.98	9.98	0.00	0.00
4276.64	90.00	1.38	3949.00	573.83	13.82	574.00	9.98	9.98	0.00	0.00

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
4300.00	90.00	1.38	3949.00	597.19	14.39	597.36	0.00	0.00	0.00	0.00
4400.00	90.00	1.38	3949.00	697.16	16.79	697.36	0.00	0.00	0.00	0.00
4500.00	90.00	1.38	3949.00	797.13	19.20	797.36	0.00	0.00	0.00	0.00
4600.00	90.00	1.38	3949.00	897.10	21.61	897.36	0.00	0.00	0.00	0.00
4700.00	90.00	1.38	3949.00	997.07	24.02	997.36	0.00	0.00	0.00	0.00
4800.00	90.00	1.38	3949.00	1097.04	26.43	1097.36	0.00	0.00	0.00	0.00
4900.00	90.00	1.38	3949.00	1197.02	28.84	1197.36	0.00	0.00	0.00	0.00
5000.00	90.00	1.38	3949.00	1296.99	31.24	1297.36	0.00	0.00	0.00	0.00
5100.00	90.00	1.38	3949.00	1396.96	33.65	1397.36	0.00	0.00	0.00	0.00
5200.00	90.00	1.38	3949.00	1496.93	36.06	1497.36	0.00	0.00	0.00	0.00
5300.00	90.00	1.38	3949.00	1596.90	38.47	1597.36	0.00	0.00	0.00	0.00
5400.00	90.00	1.38	3949.00	1696.87	40.88	1697.36	0.00	0.00	0.00	0.00
5500.00	90.00	1.38	3949.00	1796.84	43.29	1797.36	0.00	0.00	0.00	0.00
5600.00	90.00	1.38	3949.00	1896.81	45.69	1897.36	0.00	0.00	0.00	0.00
5700.00	90.00	1.38	3949.00	1996.78	48.10	1997.36	0.00	0.00	0.00	0.00
5800.00	90.00	1.38	3949.00	2096.75	50.51	2097.36	0.00	0.00	0.00	0.00
5900.00	90.00	1.38	3949.00	2196.73	52.92	2197.36	0.00	0.00	0.00	0.00
6000.00	90.00	1.38	3949.00	2296.70	55.33	2297.36	0.00	0.00	0.00	0.00
6100.00	90.00	1.38	3949.00	2396.67	57.74	2397.36	0.00	0.00	0.00	0.00
6200.00	90.00	1.38	3949.00	2496.64	60.14	2497.36	0.00	0.00	0.00	0.00



Scientific Drilling Planning Report

Company: ENERGEN
Field: Rio Arriba, NM
Site: Carson (204S)
Well: Well #204S
Wellpath: Lateral

Date: 2005-06-14 Time: 10:20:14
Co-ordinate(NE) Reference: Well: Well #204S, Grid North
Vertical (TVD) Reference: GL 7178.0
Section (VS) Reference: Well (0.00N,0.00E,1.38Azi)
Plan: Plan #1

Page: 3

Section 3 : Start Hold

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg
6300.00	90.00	1.38	3949.00	2596.61	62.55	2597.36	0.00	0.00	0.00	0.00
6400.00	90.00	1.38	3949.00	2696.58	64.96	2697.36	0.00	0.00	0.00	0.00
6500.00	90.00	1.38	3949.00	2796.55	67.37	2797.36	0.00	0.00	0.00	0.00
6600.00	90.00	1.38	3949.00	2896.52	69.78	2897.36	0.00	0.00	0.00	0.00
6700.00	90.00	1.38	3949.00	2996.49	72.19	2997.36	0.00	0.00	0.00	0.00
6800.00	90.00	1.38	3949.00	3096.46	74.59	3097.36	0.00	0.00	0.00	0.00
6900.00	90.00	1.38	3949.00	3196.44	77.00	3197.36	0.00	0.00	0.00	0.00
7000.00	90.00	1.38	3949.00	3296.41	79.41	3297.36	0.00	0.00	0.00	0.00
7100.00	90.00	1.38	3949.00	3396.38	81.82	3397.36	0.00	0.00	0.00	0.00
7200.00	90.00	1.38	3949.00	3496.35	84.23	3497.36	0.00	0.00	0.00	0.00
7300.00	90.00	1.38	3949.00	3596.32	86.64	3597.36	0.00	0.00	0.00	0.00
7400.00	90.00	1.38	3949.00	3696.29	89.04	3697.36	0.00	0.00	0.00	0.00
7500.00	90.00	1.38	3949.00	3796.26	91.45	3797.36	0.00	0.00	0.00	0.00
7600.00	90.00	1.38	3949.00	3896.23	93.86	3897.36	0.00	0.00	0.00	0.00
7636.60	90.00	1.38	3949.00	3932.82	94.74	3933.96	0.00	0.00	0.00	0.00