

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010AUG 01 2008
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 page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Energen Resources Corporation

3a. Address

2010 Afton Place, Farmington, NM 87401

3b. Phone No. (include area code)

(505) 325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1375 fnl, 665 fwl Sec 18, T30N, R4W at surface
760 fnl, 760 fwl Sec 18, T30N, R4W at bottom

5. Lease Serial No.

SF-079485A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or

San Juan Unit

8. Well Name and No.

San Juan Unit

30-4 #105 62

9. API Well No.

30-039-30159

10. Field and Pool, or Exploratory Area

Basin Fruitland Coal
Pictured Cliffs

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

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☒ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other

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 recompletable 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 recompletable 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 would like to make the following changes to the San Juan 30-4 Unit #105 as follows:

-Change the well from a Fruitland Coal well to a Pictured Cliffs well.

-Drill from the approved San Juan 30-4 Unit #105 well location to a new bottom hole location of 1375 fnl, 1880 fwl in section 17, T30N, R4W.

-Change the casing strings as follows:

*Set a 13 3/8", 48 ppf, J-55 STC conductor casing to 200' and cement with 275 sks cement.

*Set the 9 5/8" surface casing to 1400' and cement with 575 sks lead and 125 sks tail.

*Set the 7" intermediate casing to 4950' MD and cement in two stages (385 sks lead, 150 sks tail - first stage; 570 sks lead, 75 sks tail - second stage). Place stage collar at 3650' MD.

*Change the production liner to a 4 1/2", 11.6 ppf, L-80 LTC and set from 4850' - 8690' MD with no cement.

These casing changes are needed to accommodate drilling hole stability problems encountered on previously drilled wells in the area.

A revised C-102, Operations Plan, and Directional Survey are attached outlining these changes.

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

Nathan Smith

Signature

Title Drilling Engineer

Date 7/31/08

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salter

Title

Petroleum Engineer

Date

8-12-2008

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

NOTIFY AZTEC OGD 24 HRS.

PRIOR TO CASING & CEMENT

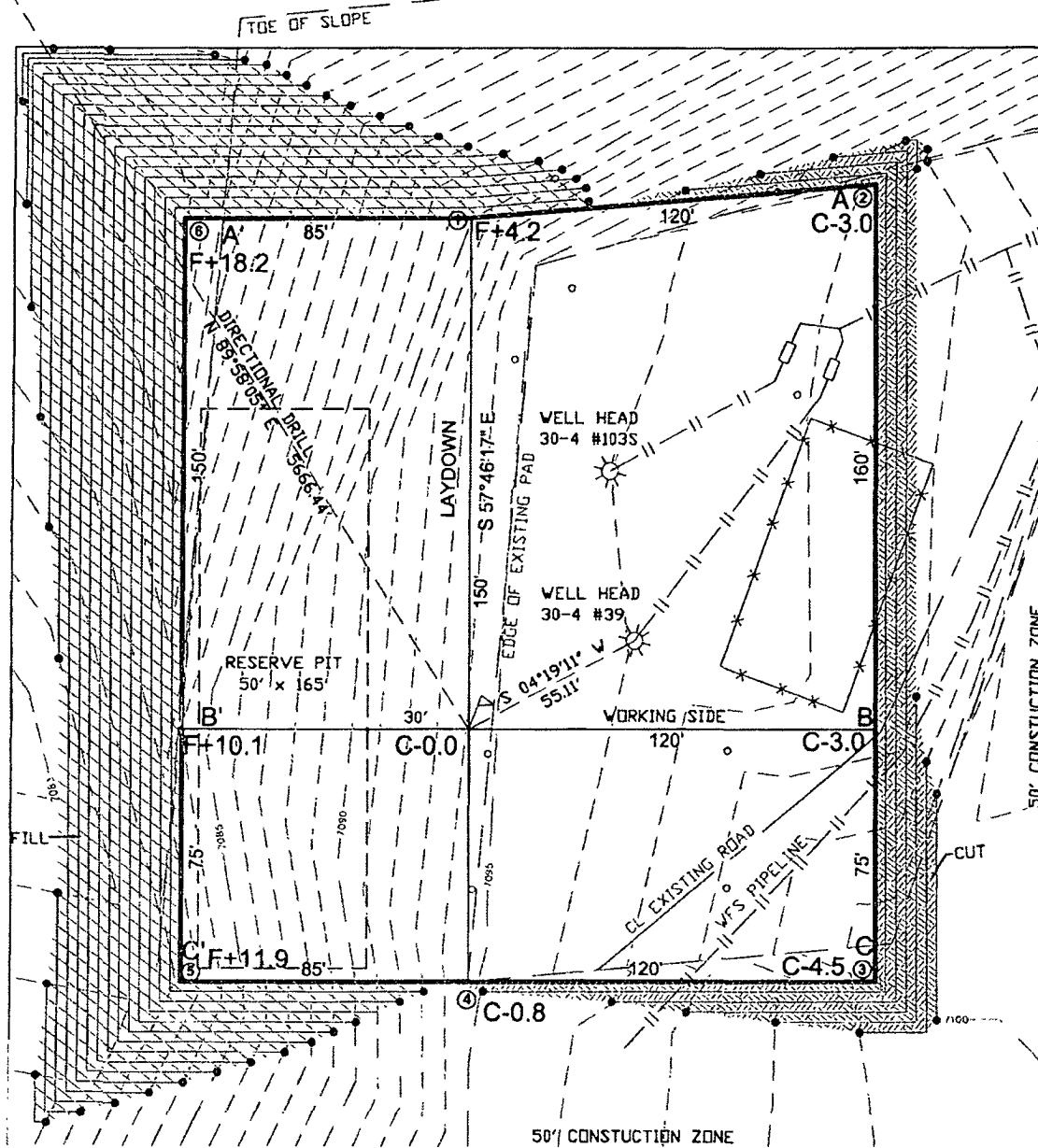
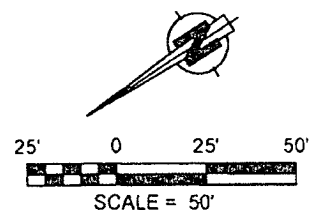
Basin FC cancelled 8/2/08

NMOC

LATITUDE 36.81514°N
 LONGITUDE: 107.30030°W
 DATUM: NAD 83

ENERGEN RESOURCES CORPORATION

SAN JUAN 30-4 UNIT #62
 1375' FNL & 665' FWL
 LOCATED IN THE SE/4 NW/4 OF SECTION 18,
 T30N, R4W, N.M.P.M.,
 RIO ARRIBA, NEW MEXICO
 GROUND ELEVATION: 7094', NAVD 88
 FINISHED PAD ELEVATION: 7094.1', NAVD 88



1 FOOT CONTOUR INTERVAL SHOWN
 SCALE: 1" = 50'
 JOB No.: ERG111_REV
 DATE: 07/31/08



Russell Surveying
 1409 W. Aztec Blvd. #5
 Aztec, New Mexico 87410
 (505) 334-8637

ENERGEN RESOURCES CORPORATION

SAN JUAN 30-4 UNIT #62

1375' FNL & 665' FWL

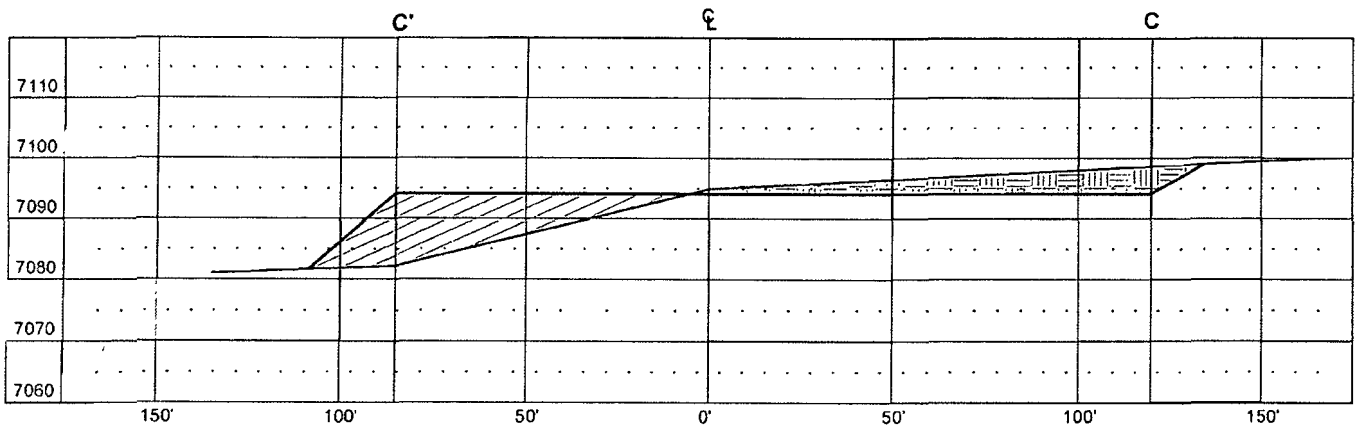
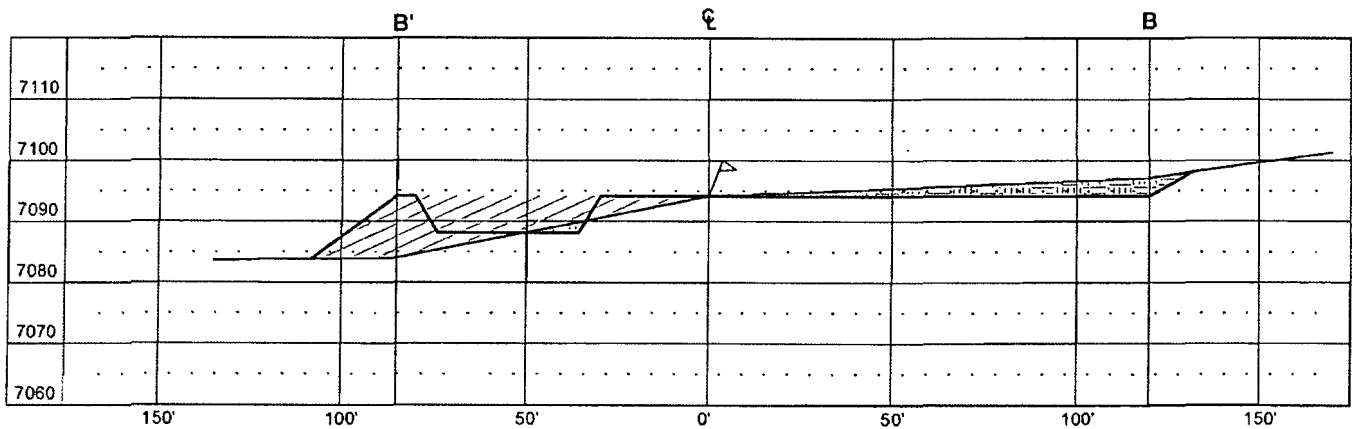
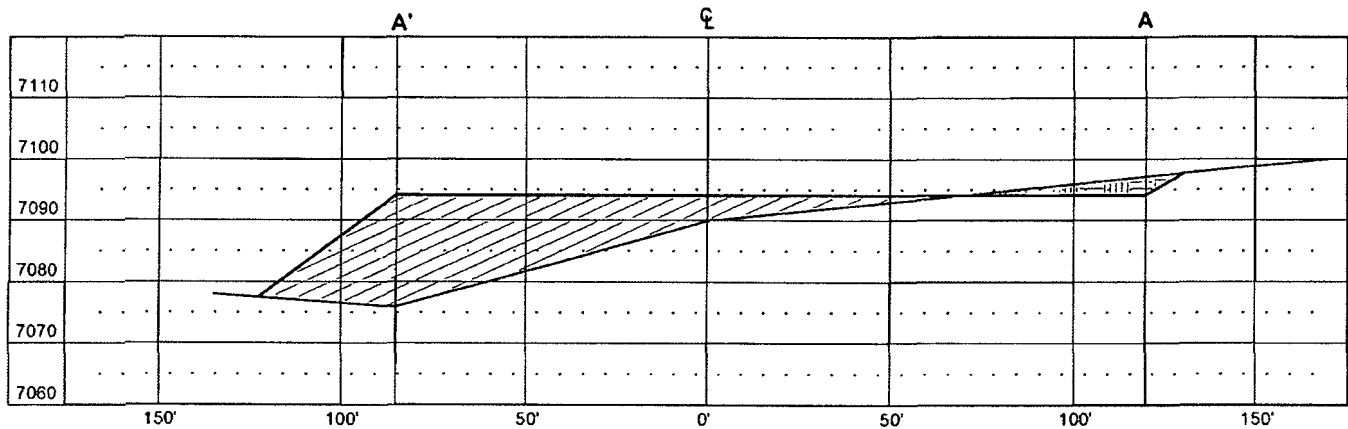
LOCATED IN THE SE/4 NW/4 OF SECTION 18,

T30N, R4W, N.M.P.M.,

RIO ARRIBA, NEW MEXICO

GROUND ELEVATION: 7094', NAVD 88

FINISHED PAD ELEVATION: 7094.1', NAVD 88



VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 50'
JOB No.: ERG111_REV
DATE: 07/31/08



Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

ENERGEN RESOURCES CORPORATION

SAN JUAN 30-4 UNIT #62

1375' FNL & 665' FWL

LOCATED IN THE SE/4 NW/4 OF SECTION 18,

T30N, R4W, N.M.P.M.,

RIO ARRIBA, NEW MEXICO

ELEVATION: 7094', NAVD 88



DIRECTIONS:

Travel east, from Bloomfield, on New Mexico State Highway No 64, turn left on Forest Road No. 310, travel 4 miles, then turn left at the Cabresto Mesa turn off, Forest Road No. 311; travel 3 miles to Forest Road No. 311M and turn right, travel 1.1 miles to Well Flag Location

U.S.G.S. QUAD: ESPINOSA RANCH

SCALE: 1" = 2000' (1:24,000)

JOB No.: ERG111_REV

DATE: 07/31/08



Russell Surveying

1409 W. Aztec Blvd. #5

Aztec, New Mexico 87410

(505) 334-8637

Drilling Plan

July 31, 2008

San Juan 30-4 Unit #62

General Information

Location	1375 fnl, 665 fwl at surface (S18) 1375 fnl, 1880 fwl at bottom (S17) senw, S17, 30N, R4W Rio Arriba County, New Mexico
Elevations	7094' GL
Total Depth	8696' (MD), 4088' (TVD)
Formation Objective	East Blanco Pictured Cliffs – Lower Sand

Formation Tops

San Jose	Surface
Nacimiento	1934' (TVD)
Ojo Alamo Ss	3184' (TVD), 3314' (MD)
Kirtland Sh	3414' (TVD), 3628' (MD)
Fruitland Fm	3444' (TVD), 3671' (MD)
Top Coal	3774' (TVD), 4230' (MD)
Bottom Coal	3846' (TVD), 4327' (MD)
Pictured Cliffs Ss	3848' (TVD), 4382' (MD)
Upper Pictured Cliffs Ss	4034' (TVD), 4926' (MD)
Lower Pictured Cliffs Ss	4074' (TVD), 5144' (MD)
Lewis Shale	4102' (TVD)
Total Depth	4102' (TVD), 8696' (MD)

Drilling

The 17 ½" wellbore will be drilled with a fresh water spud mud system.

The 12 ¼" wellbore will be drilled with a fresh water mud system. PV range 25-30, YP range 15-20. API Fluid Loss between 6-8 cc's/30 min. Weighting materials will be barite. Density from 8.4 ppg to 9.0 ppg.

The 8 ¾" wellbore will be drilled with a low solids fresh water/polymer mud system. PV range 25-30, YP range 15-20. API Fluid Loss between 6-8 cc's/30 min. Weighting materials will be barite. Mud density is expected to range from 8.9 ppg to 9.5 ppg.

Adjust density by 0.2-0.3 ppg for trip weight.

Projected KOP is 1600' TVD with a BUR of 2.28°/100'.

The 6 ¼" wellbore will be drilled with a fresh water or brine water system depending on reservoir characteristics. Expected density to range from 8.8 ppg to 9.8 ppg. Anticipated BHP can be as high as 750 psi.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. 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. Pressure test BOP's to 250 psi low for 15 min and 1500 psi for 15 min following nipple up after each casing string. Test manifold to 1500 psi for 30 min.

Logging Program:

Open hole logs: FMI 4950 – 8690 MD, 4040' – 4102' TVD.

Mud logs: From 3444' (TVD), 3671' (MD) to TD. (Top of Fruitland Fm)

Surveys: Surface to KOP and a minimum of every 250' for directional.

Tubulars**Casing, Tubing, & Casing Equipment:**

String	Interval	Wellbore	Casing	Csg Wt	Grade
Conductor	0'-200'	17 1/2"	13 3/8"	48.0 ppf	J-55 STC
Surface	0-1400	12 1/4"	9 5/8"	32.3 ppf	H-40 STC
Intermediate	0'-4040' (TVD) 4950' (MD)	8 3/4"	7"	23.0 ppf	J-55 LTC
Production	4040-4102' (TVD) 4850-8690' (MD)	6 1/4"	4 1/2"	11.6 ppf	L-80 LTC
Tubing	0'-4800' (MD)		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Conductor Casing: Texas Pattern Guide Shoe on bottom of first joint. Insert Float Valve on top of first joint. Casing centralization with three (3) standard bow spring centralizers.

Surface Casing: Texas Pattern Guide Shoe in lieu with a Float Collar on bottom of first joint. Float Collar on top of first joint. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Self Fill Float Shoe on bottom of first joint. Self Fill Float Collar on top of second joint for a two joint shoe track. Casing centralization with double bow spring and rigid centralizers to optimize standoff. Two turbolating centralizers at the base of the Ojo Alamo are recommended. *Stage collar at 3650' MD.*

Liner: Bull nose guide shoe on bottom of first joint, H-Latch liner drop off tool on top of last joint. Stimulation packers to be placed at time of FMI logging interpretation.

Wellhead

3000 psi 11" x 9 5/8" weld on/slip on casing head. 9 5/8" x 7" x 2 3/8" 3000 psi Flanged Wellhead .

Cementing

Conductor Casing: 275 sks Type V with 2.0 % CaCl_2 and $\frac{1}{4}$ #/sk Flocele (15.6 ppg, 1.18 ft³/sk 324.5 ft³ of slurry to circulate to surface). WOC 8 hours. Nipple up BOP and pressure test to 250 psi for 15 min and 1000 psi for 15 min. Test casing to 750 psi for 30 min. Test manifold to 1000 psi for 30 min.

Surface Casing: 125 sks Type V with 2.0 % CaCl_2 and $\frac{1}{4}$ #/sk Flocele (15.6 ppg, 1.18 ft³/sk) with 575 sks 50/50 Type V / Poz with 2.0 % CaCl_2 , 5.0 #/sk Gilsonite and $\frac{1}{4}$ #/sk Flocele (13.5 ppg, 1.30 ft³/sk). 895 ft³ of slurry to circulate to surface). WOC 12 hours. Nipple up BOP and pressure test as outlined in 'Drilling' section. Pressure test surface casing to 750 psi for 30 min. Test manifold as outlined in 'Drilling' section.

Intermediate Casing: Before cementing, circulate hole at least 1 $\frac{1}{2}$ hole volumes of mud and reduce funnel viscosity to minimum to aide in hole cleanout.

First Stage: Lead with 385 sks 50/50 with 2.0% Bentonite, 0.30 % Halad – 344, 0.10 % CFR – 3, 5 #/sk Gilsonite, $\frac{1}{4}$ #/sk Flocele. (13.0 ppg, 1.35 ft³/sk, 519.8 ft³) and a tail of 150 sks Class G with 1.0 % CaCl_2 and $\frac{1}{4}$ #/sk Flocele. (15.6 ppg, 1.18 ft³/sk, 177 ft³) (697 ft³ of slurry to circulate off the stage tool). Circulated 3 hours between stages at time plug down on first stage.

Second Stage: Lead with 570 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl_2 , 10 #/sk Gilsonite, and $\frac{1}{2}$ #/sk Flocele (12.3 ppg, 1.93 ft³/sk) and a tail of 75 sks Class G with $\frac{1}{4}$ #/sk Flocele (15.6 ppg, 1.18 ft³/sk). (1189 ft³ of slurry to circulate to surface). WOC 12 hours. Test BOP as outlined in 'Drilling' section. Test manifold as outlined in 'Drilling' section. Test casing to 1500 psi for 30 min.

Production Liner: NO CEMENT

Other Information

- 1) This well will be an open hole completion lined with an uncemented pre-drilled liner.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control.
- 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 or pressures are anticipated. This gas is dedicated.

SJ BR

NW Sec 17, T30N, R4W

Cabresto Mesa

San Juan 30-4 Unit #62

Version 2

Plan: Final Plan

Planned Wellpath

31 July, 2008

Project: NW Sec 17, T30N, R4W
Site: Cabresto Mesa
Well: San Juan 30-4 Unit #62
Wellbore: Version 2
Plan: Final Plan (San Juan 30-4 Unit #62/Version 2)

PROJECT DETAILS: NW Sec 17, T30N, R4W

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Central Zone

System Datum: Mean Sea Level

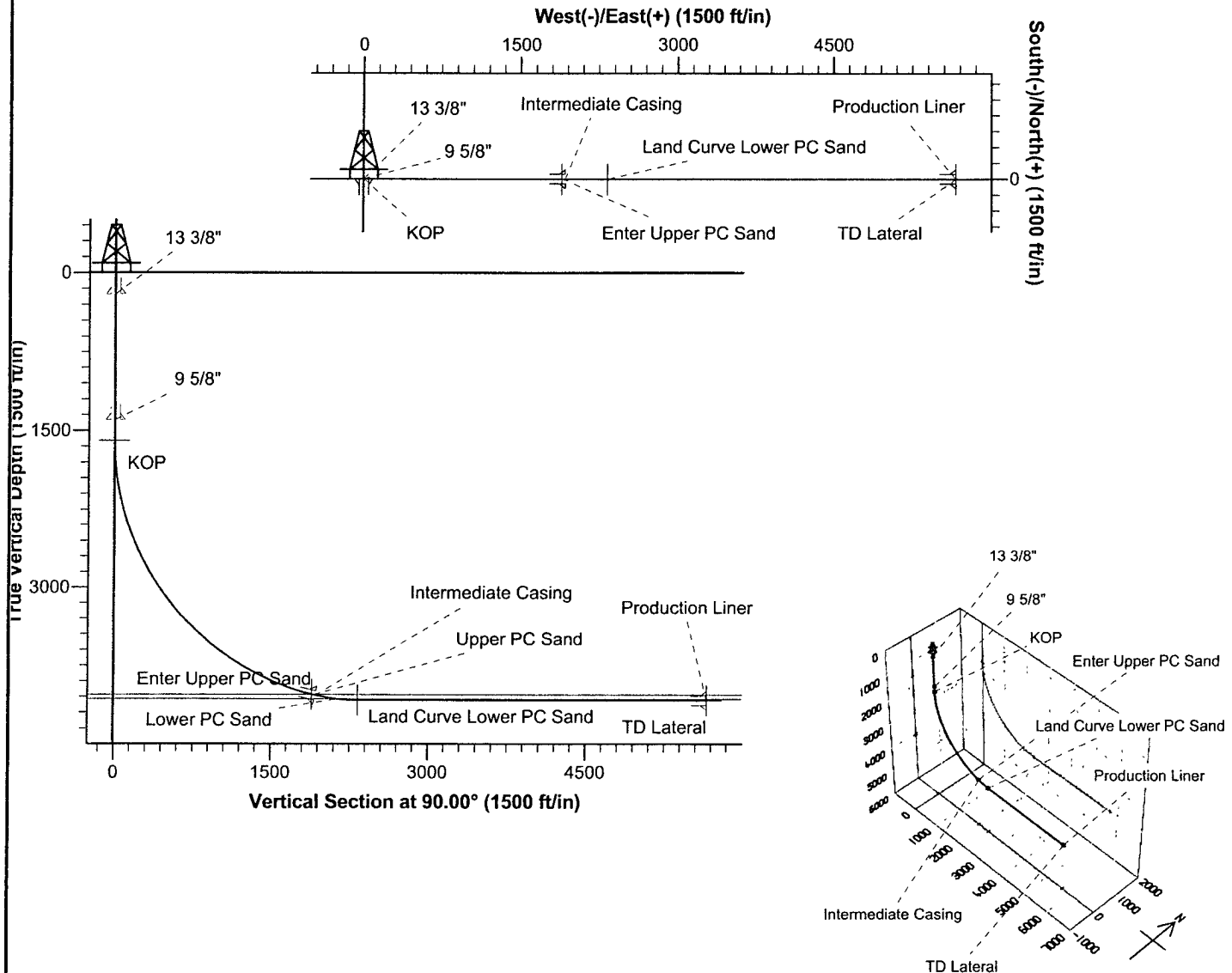


Azimuths to True North
 Magnetic North: 10.04°

Magnetic Field
 Strength: 51145.0snT
 Dip Angle: 63.69°
 Date: 7/31/2008
 Model: IGRF200510

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	1600.0	0.00	0.00	1600.0	0.0	0.0	0.00	0.00	0.0	KOP
3	4926.0	75.95	90.00	4034.0	0.0	1900.0	2.28	90.00	1900.0	Enter Upper PC Sand
4	5368.4	89.99	90.00	4088.0	0.0	2338.0	3.17	0.00	2338.0	Land Curve Lower PC Sand
5	8696.6	90.01	90.00	4088.0	0.0	5666.2	0.00	0.00	5666.2	TD Lateral



Energen

Planned Wellpath

Company: SJ BR
Project: NW Sec 17, T30N, R4W
Site: Cabresto Mesa
Well: San Juan 30-4 Unit #62
Wellbore: Version 2
Design: Final Plan

Local Co-ordinate Reference: Well San Juan 30-4 Unit #62
TVD Reference: KB @ 7106.0ft (BearCat #5)
MD Reference: KB @ 7106.0ft (BearCat #5)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project	NW Sec 17, T30N, R4W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Cabresto Mesa		
Site Position:		Northing:	2,117,685.55 ft
From:	Lat/Long	Easting:	1,332,979.89 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	36° 48' 54.504 N
		Longitude:	107° 18' 1.080 W
		Grid Convergence:	-0.63 °

Well	San Juan 30-4 Unit #62		
Well Position	+N/-S	0.0 ft	Northing: 2,117,685.55 ft
	+E/-W	0.0 ft	Easting: 1,332,979.89 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	7,094.0 ft
		Latitude:	36° 48' 54.504 N
		Longitude:	107° 18' 1.080 W
		Ground Level:	7,094.0 ft

Wellbore	Version 2		
Magnetics	Model Name	Sample Date	Declination
	IGRF200510	7/31/2008	(°)
			10.04
			Dip Angle
			(°)
			63.69
			Field Strength
			(nT)
			51,145

Design	Final Plan		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			90.00

Survey Tool Program	Date 7/31/2008		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		Description
0.0	8,696.6	Final Plan (Version 2)	

Planned Survey							
MD	TVD	Inc	Azi	Build	V. Sec	N/S	E/W
(ft)	(ft)	(°)	(°)	(°/100ft)	(ft)	(ft)	(ft)
0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
100.0	100.0	0.00	0.00	0.00	0.0	0.0	0.0
200.0	200.0	0.00	0.00	0.00	0.0	0.0	0.0
300.0	300.0	0.00	0.00	0.00	0.0	0.0	0.0
400.0	400.0	0.00	0.00	0.00	0.0	0.0	0.0
500.0	500.0	0.00	0.00	0.00	0.0	0.0	0.0
600.0	600.0	0.00	0.00	0.00	0.0	0.0	0.0
700.0	700.0	0.00	0.00	0.00	0.0	0.0	0.0
800.0	800.0	0.00	0.00	0.00	0.0	0.0	0.0
900.0	900.0	0.00	0.00	0.00	0.0	0.0	0.0
1,000.0	1,000.0	0.00	0.00	0.00	0.0	0.0	0.0
1,100.0	1,100.0	0.00	0.00	0.00	0.0	0.0	0.0

Energen

Planned Wellpath

Company: SJ BR
Project: NW Sec 17, T30N, R4W
Site: Cabresto Mesa
Well: San Juan 30-4 Unit #62
Wellbore: Version 2
Design: Final Plan

Local Co-ordinate Reference: Well San Juan 30-4 Unit #62
TVD Reference: KB @ 7106.0ft (BearCat #5)
MD Reference: KB @ 7106.0ft (BearCat #5)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build ("/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
1,200.0	1,200.0	0.00	0.00	0.00	0.0	0.0	0.0
1,300.0	1,300.0	0.00	0.00	0.00	0.0	0.0	0.0
1,400.0	1,400.0	0.00	0.00	0.00	0.0	0.0	0.0
1,500.0	1,500.0	0.00	0.00	0.00	0.0	0.0	0.0
1,600.0	1,600.0	0.00	0.00	0.00	0.0	0.0	0.0
KOP							
1,700.0	1,700.0	2.28	90.00	2.28	2.0	0.0	2.0
1,800.0	1,799.8	4.57	90.00	2.28	8.0	0.0	8.0
1,900.0	1,899.3	6.85	90.00	2.28	17.9	0.0	17.9
2,000.0	1,998.3	9.13	90.00	2.28	31.8	0.0	31.8
2,100.0	2,096.7	11.42	90.00	2.28	49.7	0.0	49.7
2,200.0	2,194.3	13.70	90.00	2.28	71.4	0.0	71.4
2,300.0	2,291.0	15.99	90.00	2.28	97.0	0.0	97.0
2,400.0	2,386.5	18.27	90.00	2.28	126.5	0.0	126.5
2,500.0	2,480.8	20.55	90.00	2.28	159.7	0.0	159.7
2,600.0	2,573.7	22.84	90.00	2.28	196.7	0.0	196.7
2,700.0	2,665.1	25.12	90.00	2.28	237.3	0.0	237.3
2,800.0	2,754.8	27.40	90.00	2.28	281.5	0.0	281.5
2,900.0	2,842.6	29.69	90.00	2.28	329.3	0.0	329.3
3,000.0	2,928.5	31.97	90.00	2.28	380.6	0.0	380.6
3,100.0	3,012.2	34.25	90.00	2.28	435.2	0.0	435.2
3,200.0	3,093.7	36.54	90.00	2.28	493.1	0.0	493.1
3,300.0	3,172.9	38.82	90.00	2.28	554.2	0.0	554.2
3,400.0	3,249.5	41.10	90.00	2.28	618.4	0.0	618.4
3,500.0	3,323.5	43.39	90.00	2.28	685.7	0.0	685.7
3,600.0	3,394.8	45.67	90.00	2.28	755.8	0.0	755.8
3,700.0	3,463.3	47.96	90.00	2.28	828.7	0.0	828.7
3,800.0	3,528.7	50.24	90.00	2.28	904.3	0.0	904.3
3,900.0	3,591.1	52.52	90.00	2.28	982.4	0.0	982.4
4,000.0	3,650.4	54.81	90.00	2.28	1,063.0	0.0	1,063.0
4,100.0	3,706.4	57.09	90.00	2.28	1,145.8	0.0	1,145.8
4,200.0	3,759.0	59.37	90.00	2.28	1,230.8	0.0	1,230.8
4,300.0	3,808.2	61.66	90.00	2.28	1,317.9	0.0	1,317.9
4,400.0	3,854.0	63.94	90.00	2.28	1,406.8	0.0	1,406.8
4,500.0	3,896.1	66.22	90.00	2.28	1,497.5	0.0	1,497.5
4,600.0	3,934.6	68.51	90.00	2.28	1,589.8	0.0	1,589.8
4,700.0	3,969.3	70.79	90.00	2.28	1,683.5	0.0	1,683.5
4,800.0	4,000.4	73.07	90.00	2.28	1,778.6	0.0	1,778.6
4,900.0	4,027.6	75.36	90.00	2.28	1,874.8	0.0	1,874.8
4,926.0	4,034.0	75.95	90.00	2.28	1,900.0	0.0	1,900.0
Upper PC Sand - Enter Upper PC Sand							
5,000.0	4,050.5	78.30	90.00	3.17	1,972.1	0.0	1,972.1
5,100.0	4,068.0	81.47	90.00	3.17	2,070.6	0.0	2,070.6
5,143.7	4,074.0	82.86	90.00	3.17	2,113.9	0.0	2,113.9
Lower PC Sand							

Energen

Planned Wellpath

Company: SJ BR
Project: NW Sec 17, T30N, R4W
Site: Cabresto Mesa
Well: San Juan 30-4 Unit #62
Wellbore: Version 2
Design: Final Plan

Local Co-ordinate Reference: Well San Juan 30-4 Unit #62
TVD Reference: KB @ 7106.0ft (BearCat #5)
MD Reference: KB @ 7106.0ft (BearCat #5)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
5,200.0	4,080.1	84.65	90.00	3.17	2,169.8	0.0	2,169.8
5,300.0	4,086.7	87.82	90.00	3.17	2,269.6	0.0	2,269.6
5,368.4	4,088.0	89.99	90.00	3.17	2,338.0	0.0	2,338.0
Land Curve Lower PC Sand							
5,400.0	4,088.0	89.99	90.00	0.00	2,369.6	0.0	2,369.6
5,500.0	4,088.0	89.99	90.00	0.00	2,469.6	0.0	2,469.6
5,600.0	4,088.0	89.99	90.00	0.00	2,569.6	0.0	2,569.6
5,700.0	4,088.0	89.99	90.00	0.00	2,669.6	0.0	2,669.6
5,800.0	4,088.1	89.99	90.00	0.00	2,769.6	0.0	2,769.6
5,900.0	4,088.1	89.99	90.00	0.00	2,869.6	0.0	2,869.6
6,000.0	4,088.1	89.99	90.00	0.00	2,969.6	0.0	2,969.6
6,100.0	4,088.1	90.00	90.00	0.00	3,069.6	0.0	3,069.6
6,200.0	4,088.1	90.00	90.00	0.00	3,169.6	0.0	3,169.6
6,300.0	4,088.1	90.00	90.00	0.00	3,269.6	0.0	3,269.6
6,400.0	4,088.1	90.00	90.00	0.00	3,369.6	0.0	3,369.6
6,500.0	4,088.1	90.00	90.00	0.00	3,469.6	0.0	3,469.6
6,600.0	4,088.1	90.00	90.00	0.00	3,569.6	0.0	3,569.6
6,700.0	4,088.1	90.00	90.00	0.00	3,669.6	0.0	3,669.6
6,800.0	4,088.1	90.00	90.00	0.00	3,769.6	0.0	3,769.6
6,900.0	4,088.1	90.00	90.00	0.00	3,869.6	0.0	3,869.6
7,000.0	4,088.1	90.00	90.00	0.00	3,969.6	0.0	3,969.6
7,100.0	4,088.1	90.00	90.00	0.00	4,069.6	0.0	4,069.6
7,200.0	4,088.1	90.00	90.00	0.00	4,169.6	0.0	4,169.6
7,300.0	4,088.1	90.00	90.00	0.00	4,269.6	0.0	4,269.6
7,400.0	4,088.1	90.00	90.00	0.00	4,369.6	0.0	4,369.6
7,500.0	4,088.1	90.00	90.00	0.00	4,469.6	0.0	4,469.6
7,600.0	4,088.1	90.00	90.00	0.00	4,569.6	0.0	4,569.6
7,700.0	4,088.1	90.00	90.00	0.00	4,669.6	0.0	4,669.6
7,800.0	4,088.1	90.00	90.00	0.00	4,769.6	0.0	4,769.6
7,900.0	4,088.1	90.00	90.00	0.00	4,869.6	0.0	4,869.6
8,000.0	4,088.1	90.00	90.00	0.00	4,969.6	0.0	4,969.6
8,100.0	4,088.1	90.01	90.00	0.00	5,069.6	0.0	5,069.6
8,200.0	4,088.1	90.01	90.00	0.00	5,169.6	0.0	5,169.6
8,300.0	4,088.1	90.01	90.00	0.00	5,269.6	0.0	5,269.6
8,400.0	4,088.0	90.01	90.00	0.00	5,369.6	0.0	5,369.6
8,500.0	4,088.0	90.01	90.00	0.00	5,469.6	0.0	5,469.6
8,600.0	4,088.0	90.01	90.00	0.00	5,569.6	0.0	5,569.6
8,696.6	4,088.0	90.01	90.00	0.00	5,666.2	0.0	5,666.2

TD Lateral

Energen

Planned Wellpath

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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
KOP - plan hits target - Point	0.00	0.00	1,600.0	0.0	0.0	2,117,685.55	1,332,979.89	36° 48' 54.504 N	107° 18' 1.080 W
Land Curve Lower PC - plan hits target - Point	0.00	0.00	4,088.0	0.0	2,338.0	2,117,659.86	1,335,317.75	36° 48' 54.503 N	107° 17' 32.328 W
Enter Upper PC Sand - plan hits target - Point	0.00	0.00	4,034.0	0.0	1,900.0	2,117,664.68	1,334,879.77	36° 48' 54.503 N	107° 17' 37.715 W
TD Lateral - plan hits target - Point	0.00	0.00	4,088.0	0.0	5,666.2	2,117,623.30	1,338,645.75	36° 48' 54.498 N	107° 16' 51.399 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
200.0	200.0	13 3/8"	13-3/8	17-1/2
1,400.0	1,400.0	9 5/8"	9-5/8	12-1/4
4,951.4	4,040.0	Intermediate Casing	7	8-3/4
8,690.0	4,088.0	Production Liner	4-1/2	6-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,926.0	4,034.0	Upper PC Sand		0.00	
5,143.7	4,074.0	Lower PC Sand		0.00	

Checked By: _____ Approved By: _____ Date: _____