UNITED STATES DEPARTMENT OF THE INTERIOR

CHAIDE	OV NOTICES	AND DED	DEE ON	RECEN	
	BUREAU OF	LAND MAN	AGEMENT		
	DLIARIME	IVI OI IIILI	HILIGOR		

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

5. Lease Serial No.

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	IJ		·	u	•	1	u.	

6. If Indian, Allottee or Tribe Name

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.2 SUBMIT IN TRIPLICATE - Other instructions on page 29ton Field United 7. If Unit or CA/Agreement, Name and/or No. Bureau of Land Managemen San Juan 32-5 Unit 1. Type of Well 8. Well Name and No. Oil Well X Gas Well Other San Juan 32-5 Unit 105S 2. Name of Operator Energen Resources Corporation 9. API Well No. 3a. Address 3b. Phone No. (include area code) 30-039-27265 2010 Afton Place, Farmington, NM 87401 505-325-6800 10. Field and Pool, or Exploratory Area 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Basin Fruitland Coal SHL: 1670' FSL, 1340' FEL 11. County or Parish, State BHL: 600' FNL 100' FEL Sec.25 T32N. R06W Rio Arriba 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 Well Integrity Alter Casing Fracture Treat Reclamation Subsequent Report Casing Repair New Construction Recomplete Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back Water Disposal 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 recomplete 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 recompletion 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 recomplete the San Juan 32-5 Unit #105S by drilling a horizontal lateral off of the existing vertical wellbore as indicated on the revised attached C-102 and directional wellplan. A whipstock will be set at 2965'+/- (TVD) and a window milled in the existing 7" casing from 2950'-2962'+/- (TVD). The lateral will be drilled to 6436'MD, 3195'TVD, A 4.5" 11.6 ppf, J-55, LT&C pre drilled liner will be ran and set from 2950'-6436'MD. RCVD AUG 4'11 * HOLD C-104 for SD order and approval from SF (30-039-24270 in un (8)) OIL CONS. DIV. DIST. 3 Hold C104

14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Stephen Byers	Title Drilling Engineer	
Signature Styphen Lavers	Date 7/26/2011	
THIS SPACE FOR FEDER	RAL OR STATE OFFICE USE	
Approved by Original Signed: Stephen Mason	Title	Date AUG 0 3 2011
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon	Office	

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.

for Directional Survey and "As Drilled" plat

'<u>District I</u>' 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

<u>District IV</u> 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 July 16, 2010 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number	² Pool Code	^a Pool N	lame	
30-039-27265	71629	Basin Fruitland Coal		
⁴ Property Code	* Property	Name	⁶ Well Number	
21996	San Juan 3	Juan 32-5 Unit		
⁷ OGRID No.	⁶ Operator	Name	^e Elevation	
162928	Energen Resourc	es Corporation	6511'	
	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
ı	25	32N	6W		1670'	South	1340'	East	Rio Arriba
		•	¹¹ Bot	tom Hol	e Location If	Different From	m Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	Fast/West line	County

OL GI IGLIG.	SECTION	LOMISSID	range	Locion	reat from the	NOT the South line	rest from the	East/west line	County
Α	25	32N	6W		600'	North	100'	East	Rio Arriba
¹² Dedicated Acres	¹³ Joint o	r Infill ¹⁴	*Consolidation	Code ¹⁵ Or	der No.				
320 E/2		!							

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.

20.	18,68'	265	6.50'	
16	15.05	g - 205	600 BHL,	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 unlessed mineral interest in the land including the proposed bottom hale location or has a right to drill this well at this location pursuent to
2648.58 [']			2709.96	a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heratofore entered by the division.
200.00			, 2709.50	Stephen Byers 10/8/2010 10/8/2010 Date
			/	Printed Name sbyers@energen.com E-mail Address
	2	5	<i>'</i>	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was
			1	plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the
			5HL	best of my belief. October 3, 2002
2601.06'			2668.38'	Date of Survey Signature and Seal of Professional Surveyor
6		,	1670'	hara O Standa
		96'		Jason C. Edwards Certificate Number 15269



OPERATIONS PLAN

WELL NAME	San Juan 32-5 Unit #105S
JOB TYPE	Re-entry Sidetrack
DEPT	Drilling and Completions
RIG	D & J #1
PREPARED BY	Stenhen Byers

General Information

Surface Location 1670 FSL 1340 FEL
S-T-R (I) Sec.25, T32N, R6W
Bottom Hole Location 600 FNL 100 FEL
S-T-R (A) Sec.25, T32N, R6W
County, State Rio Arriba, New Mexico

Elevations 6511' GL

Total Depth 6436' +/- (MD); 3195' (TVD)

Formation Objective Basin Fruitland Coal

Formation Tops

Top Target Coal 3185' (TVD)
Base Target Coal 3208' (TVD)

Total Depth 3195' (TVD), 6436' +/- (MD)

Drilling

1. Set whipstock on top of the composite bridge plug left by the workover rig.

2. Orientate the whipstock at an azimuth of 21.75°. KOP is 2950'.

3. Run in hole with a 6-1/4" milling assembly and mill window and 15' of formation

4. Pick up 6-1/4" directional tools and follow attached directional plan

- a. The build section will be drilled with and LSND or polymer and water as directed by the mud engineer.
- b. The mud density range for the lateral section should range from 8.5-8.6 ppg, based on offset data.
- 5. Pull out of hole. If problems are encountered before reaching the window run back to bottom and condition well for casing run. If problems are encountered continue pulling out and pick up a cleanout assembly.
- 6. Prior to running liner and hook hanger system, trip in hole and retrieve whipstock.
- 7. Run 4-1/2" 11.6# J-55, 6 shot/ft pre-drilled liner and Baker B-hook hanger system and through window.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. 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 to 250 psi for 15 min and 2000 psi for 15 min.

7/26/2011



Logging Program:

Open hole logs: None Mudlogs: From KOP to TD.

Coring: None

Surveys: Every 250' while directional drilling to TD.

Casing, Tubing, & Casing Equipment

String	<u>Interval</u>	<u>Wellbore</u>	<u>Size</u>	$\underline{\mathbf{W}}\mathbf{t}$	<u>Grade</u>
Production	2950'-6436' MD	6 1/4"	4 1/2"	11.6 lb/ft	J-55 LT&C
	3195' TVD				
Tubing	0'- 2900'мр	7"	2 3/8"	4.7 lb/ft	J-55

Casing Equipment:

Production Liner: Bull nose guide shoe on the bottom of the first joint. Perforated liner to be run in producing interval. Blank or non-perforated joints from the landing point up to the milled window.

Wellhead

3000 psi 11" x 9 5/8" casing head. 9 5/8" x 7" x 2 3/8" 5000psi Flanged wellhead.

Cementing

Production: Open Hole Completion - 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.
- 3) No abnormal temperatures or pressures for the region are anticipated. BHP can be as high as 1500 psi.
- 4) This gas is dedicated.



Energen Resources Corp. SJBR Sec. 25-T32N-R06W

SJBR Sec. 25-T32N-R06W Eul Canyon San Juan 32-5 Unit #105S ST Re-Entry Sidetrack OPE FTC

Plan: Sidetrack Plan #1

DIRECTIONAL PLAN

02 May, 2011

Prepared By: Stephen Byers



Project: SJBR Sec. 25-T32N-R06W

Site: Eul Canyon

Well: San Juan 32-5 Unit #105S ST

Wellbore: Re-Entry Sidetrack OPE FTC

Design: SidetrackPlan#1

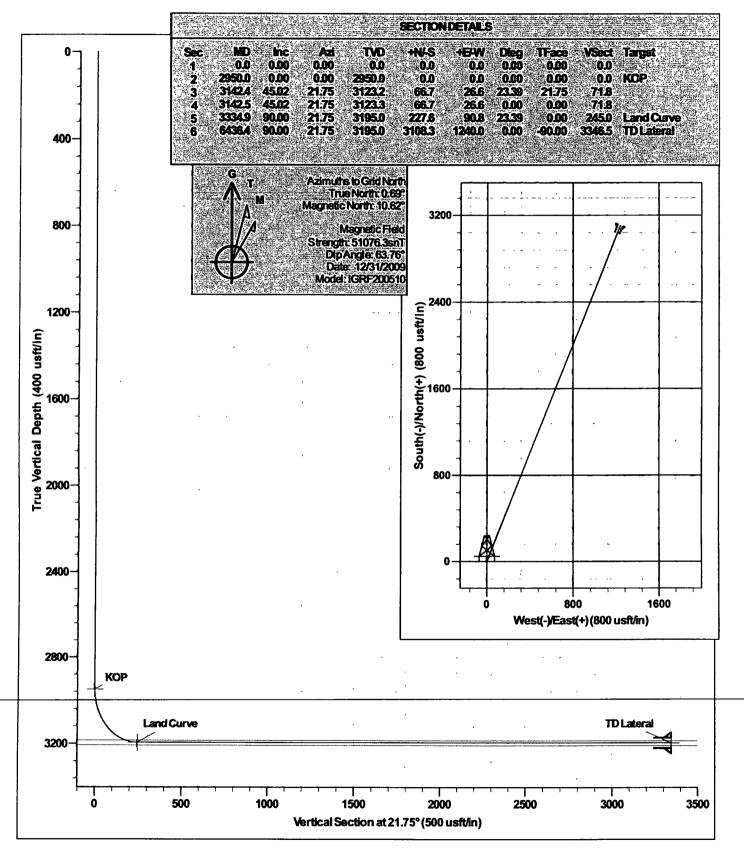
PROJECT DETAILS: SJBR Sec. 25-T32N-R06W

Geodetic System: US State Plane 1983

Datum: North American Datum 1983

Ellipsoid: GRS 1980

Zone: New Mexico Central Zone



Energen DIRECTIONAL PLAN

Company:

Energen Resources

Project:

SJBR Sec. 25-T32N-R06W

Site:

Eul Canvon

Well:

San Juan 32-5 Unit #105S ST

Wellbore:

Re-Entry Sidetrack OPE FTC

Design:

Sidetrack Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

Site Eul Canvon KB @ 6526.0usft (KB) KB @ 6526.0usft (KB)

North Reference: Grid

Survey Calculation Method:

Minimum Curvature

EDM 5000.1 Single User Db

Project

SJBR Sec. 25-T32N-R06W

Map System: Geo Datum:

US State Plane 1983 North American Datum 1983

Map Zone:

New Mexico Central Zone

System Datum:

Mean Sea Level

Site

Eul Canyon

Site Position:

Northing: Easting:

2,166,708.33 usft

Latitude:

36° 56' 55.788 N

From:

Position Uncertainty:

Lat/Long

1,303,256.68 usft

Longitude:

107° 24' 13.860 W

0.0 usft

Slot Radius:

13-3/16"

Grid Convergence:

-0.69 °

Well Well Position San Juan 32-5 Unit #105S ST

+N/-S

+F/-W

0.0 usft

Northing: Easting:

2,166,708.33 usf

Latitude:

36° 56' 55.788 N

Position Uncertainty

0.0 usft 0.0 usft

Wellhead Elevation:

12/31/2009

1,303,256.68 usf 6,511.0 usf

Longitude: **Ground Level:** 107° 24' 13.860 W

6,511.0 usft

Wellbore

Re-Entry Sidetrack OPE FTC

Magnetics

Model Name

IGRF200510

Design Audit Notes:

Version:

PROTOTYPE

Tie On Depth:

0.0

Vertical Section:

Depth From (TVD)

0.0

+N/-S 0.0

+EI-W

Direction

Survey Tool Program From

(usft)

Date = 5/2/2011

Sidetrack Plan #1

Survey (Wellbore)

Tool Name

0.0

6,436.4 Sidetrack Plan #1 (Re-Entry Sidetrack OP

MWD - Standard

Planned Survey		ing a state of the	111111111111111111111111111111111111111	5. 花瓣纸 花 15 1.	The state of the s	ikala. Air	A STATE OF THE STATE OF
MD (usft)	TVD (usft)	inc (°)	Azi (7)	Bulki (7/100usft)	N/S (usit)	E/W (usft)	V. Sec (usft)
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 DIRECTIONAL PLAN

Company: Project:

Design:

Energen Resources

SJBR Sec. 25-T32N-R06W

Site:

Eul Canyon

Well: Wellbore: San Juan 32-5 Unit #105S ST Re-Entry Sidetrack OPE FTC

Sidetrack Plan #1

Local Co-ordinate Reference: Site Eul Canyon
TVD Reference: KB @ 6526.0usft (KB)
MD Reference: KB @ 6526.0usft (KB)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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MD	TVD	.tnc	Azi	'a Build	ŇS	EN 1	V. Sec
(usft)	(usft)		THE TOTAL STATE	(°/100usft)	(usft)	(usft)	(usft)
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
1,700.0	1,700.0	0.00	0.00	0.00	0.0	0.0	0.0
1,800.0	1,800.0	0.00	0.00	0.00	0.0	0.0	0.0
1,900.0	1,900.0	0.00	0.00	0.00	0.0	0.0	0.0
2,000.0	2,000.0	0.00	0.00	0.00	0.0	0.0	0.0
2,100.0	2,100.0	0.00	0.00	0.00	0.0	0.0	0.0
2,200.0	2,200.0	0.00	0.00	0.00	0.0	0.0	0.0
2,300.0	2,300.0	0.00	0.00	0.00	0.0	0.0	0.0
2,400.0	2,400.0	0.00	0.00	0.00	0.0	0.0	0.0
2,500.0	2,500.0	0.00	0.00	0.00	0.0	0.0	0.0
2,600.0	2,600.0	0.00	0.00	0.00	0.0	0.0	0.0
2,700.0	2,700.0	0.00	0.00	0.00	0.0	0.0	0.0
2,800.0	2,800.0	0.00	0.00	0.00	0.0	0.0	0.0
2,900.0	2,900.0	0.00	0.00	0.00	0.0	0.0	0.0
2,950.0		0.00				0.0	0.0
2,950.0	2,950.0	0.00	0.00	0.00	0.0	0.0	0.0
2,960.0	2,960.0	2.34	KO 21.75	23.39	0.2	0.1	0.2
2,980.0	2,979.9	7.02	21.75	23.39	1.7	0.7	1.8
3,000.0	2,999.7	11.70	21.75	23.39	4.7	1.9	5.1
3,020.0	3,019.1	16.38	21.75	23.39	9.2	3.7	9.9
3,040.0	3,038 0	21.05	21.75	23.39	15.2	6.1	16.4
3,060.0	3,056.3	25.73	21.75	23.39	22.6	9.0	24.3
3,080.0	3,074.0	30.41	21.75	23.39	31.3	12.5	33.7
3,100.0	3,090.8	35.09	21.75	23.39	41.3	16.5	44.5
3,120.0	3,106.7	39.77	21.75	23.39	52.6	21.0	56.7
3,140 0	3,121.5	44.45	21.75	23.39	65.1	26.0	70.1
3,142.4	3,123.2	45.02	21.75	23.60	66.7	26.6	71.8
3,142.5	3,123.3	45.02	21.75	0.00	66.7	26.6	71.8
3,160.0 3,180.0	3,135.2 3,147.7	49.11 53.79	21.75 21.75	23.39 23.39	78.6 93.1	31.4 37.2	84.6 100.3
,	,						
3,200.0	3,158.8	58.46	21.75	23.39	108.6	43.3	116.9
3,220.0	3,168.6	63.14	21.75	23.39	124.8	49.8	134.3
3,240.0	3,176.9	67.82	21.75	23.39	141.7	56.5	152.5
3,260.0	3,183.6	72.50	21.75	23.39	159.1	63.5	171.3
3,264.6	3,185.0	73.58	21.75	23.39	163.3	65.1	175.8
			Top Targ				
3,280.0	3,188.9	77.17	21.75	23.39	177.1	70.6	190.6
3,300.0	3,192.5	81.85	21.75	23.39	195.3	77.9	210.3
3,320.0	3,194.5	86.53	21.75	23.39	213.8	85.3	230.2
3,334.9	3,195.0	90.00	21.75	23.35	227.6	90.8	245.0

Energen DIRECTIONAL PLAN

Company: Project:

Energen Resources

SJBR Sec. 25-T32N-R06W

Site:

Eul Canyon

Well: San Juan 32-5 Unit #105S ST

Wellbore: Design:

Re-Entry Sidetrack OPE FTC

Sidetrack Plan #1

Local Co-ordinate Reference: Site Eul Canyon

TVD Reference: KB @ 6526.0usft (KB)

MID Reference: KB @ 6526.0usft (KB)

North Reference: Grid

Minimum Curvature

Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

lanned Survey					e-Mariana de Sacreta	tot to a com-	÷ %
MD (usft)	TVD	Inc	Azi (%)	Build (°/100usft)	NS	EW	V. Sec
	(usft)	/ (?)	(")	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(usft)	(usft)	(usft)
3,400.0	3,195.0	90.00	21.75	0.00	288.1	114.9	310.2
3,500.0	3,195.0	90.00	21.75	0.00	381.0	152.0	410.2
3,600.0	3,195.0	90.00	21.75	0.00	473.9	189.0	510.2
3,700.0	3,195.0	90.00	21.75	0.00	566.7	226.1	610.2
3,800.0	3,195.0	90.00	21.75	0.00	659.6	263.2	710.2
3,900.0	3,195.0	90.00	21.75	0.00	752.5	300.2	810.2
4,000.0	3,195.0	90.00	21.75	0.00	845.4	337.3	910.2
4,100.0	3,195.0	90.00	21.75	0.00	938.3	374.3	1,010.2
4,200.0	3,195.0	90.00	21.75	0.00	1,031.1	411.4	1,110.2
4,300.0	3,195.0	90.00	21.75	0.00	1,124.0	448.4	1,210.2
4,400.0	3,195.0	90.00	21.75	0.00	1,216.9	485.5	1,310.2
4,500.0	3,195.0	90.00	21.75	0.00	1,309.8	522.5	1,410.2
4,600.0	3,195.0	90.00	21.75	0.00	1,402.7	559.6	1,510.2
4,700.0	3,195.0	90.00	21.75	0.00	1,495.6	596.6	1,610.2
4,800.0	3,195.0	90.00	21.75	0.00	1,588.4	633.7	1,710.2
4,900.0	3,195.0	90.00	21.75	0.00	1,681.3	670.8	1,810.2
5,000.0	3,195.0	90.00	21.75	0.00	1,774.2	707.8	1,910.2
5,100.0	3,195.0	90.00	21.75	0.00	1,867.1	744.9	2,010.2
5,200.0	3,195.0	90.00	21.75	0.00	1,960.0	781.9	2,110.2
5,300.0	3,195.0	90.00	21.75	0.00	2,052.9	819.0	2,210.2
5,400.0	3,195.0	90.00	21.75	0.00	2,145.7	856.0	2,310.2
5,500.0	3,195.0	90.00	21.75	0.00	2,238.6	893.1	2,410.2

Casing Points			•		· · · · · · · · · · · · · · · · · · ·		,	- + +
			1. M. M. J.	ه اور خود مشورات در		·公司(1917年)	and the state of t	
	Measured	verucai	الله المنافق المعالمين والكالم			Casing	Hole	
	Depth (usft)	Depth (1000)				Diameter	Diameter	
	(asit)	(usit)		Name	C. E. C.		"说话就意"。	
	6,436.0	3,195.0		Liner		4-1/2	6-1/4	

Formations				
	Measured Depth (usft)	Vertical Depth (usft)		Dip Direction
	5,527.0	3,208.0	Base Target Coal	0.00
	3,264.6	3,185.0	Top Target Coal	0.00

Checked By:	Approved By:	D	ate: