

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN
DUPLICATE

RECEIVED
(See other instructions on
reverse side)

FORM APPROVED
OMB NO 1004-0137
Expires February 28, 1995

SEP 14 2011

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a TYPE OF WELL OIL WELL ☒ GAS WELL DRY OTHER		7 UNIT AGREEMENT NAME Farmington Field Office Bureau of Land Management Rosa Unit	
b TYPE OF COMPLETION NEW WELL WORKOVER DEEPEN PLUG BACK DIFF RESVR ☒ OTHER - horizontal reentry		8 FARM OR LEASE NAME, WELL NO Rosa Unit 279A	
2 NAME OF OPERATOR WILLIAMS PRODUCTION COMPANY		9 API WELL NO 30-039-29534	
3 ADDRESS AND TELEPHONE NO P O. Box 640, Aztec, NM 87410 (505) 634-4208		10 FIELD AND POOL, OR WILDCAT BASIN FRUITLAND COAL	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* SURF 1669' FSL & 698' FEL BHL: 1816' FNL & 2386' FEL		11 SEC., T., R., M., OR BLOCK AND SURVEY OR AREA SEC 35, 32N, 6W	
14 PERMIT NO		DATE ISSUED	
15 DATE SPUDDED 5-15-06		16 DATE T D REACHED existing	
17 DATE COMPLETED (READY TO PRODUCE) 9/9/11		18 ELEVATIONS (DK, RKB, RT, GR, ETC)* 6317" GR	
20 TOTAL DEPTH, MD & TVD 5330' MD / 3053' TVD		21 PLUG, BACK T D, MD & TVD 5315" MD 3053' TVD	
22 IF MULTICOMP, HOW MANY		23 INTERVALS DRILLED BY	
24 PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* BASIN FRUITLAND COAL 2580'-5310' MD		25 WAS DIRECTIONAL SURVEY MADE YES	
26 TYPE ELECTRIC AND OTHER LOGS RUN		27 WAS WELL CORED No	
28 CASING REPORT (Report all strings set in well)			
CASING SIZE/GRADE		WEIGHT, LB /FT	
9-5/8", J-55		36#	
7", K-55		23#	
DEPTH SET (MD)		HOLE SIZE	
348'		12-1/4"	
TOP OF CEMENT, CEMENTING RECORD		AMOUNT PULLED	
190 SX - SURFACE			
450SX - SURFACE			
29 LINER RECORD			
SIZE		TOP (MD)	
4 1/2"		2537'	
BOTTOM (MD)		SACKS CEMENT*	
5315'		0 SX	
SCREEN (MD)		SIZE	
		2-7/8", 6.5#, J-55	
DEPTH SET (MD)		PACKER SET (MD)	
3226'			
30 TUBING RECORD			
32 ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC			
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED	
2580'-5310'		Well was not stimulated	
31 PERFORATION RECORD (Interval, size, and number)			
Basin Fruitland Coal: 2580'-5310' (Pre-Perforated Liner, 28, 0.50" dia holes p/ft)			
33 PRODUCTION			
DATE OF FIRST PRODUCTION 6/22/06		PRODUCTION METHOD (Flowing, gas lift, pumping-size and type of pump)	
WELL STATUS (PRODUCING OR SI) Producing			
DATE OF TEST		TESTED	
CHOKE SIZE		PROD'N FOR TEST PERIOD	
OIL - BBL		GAS - MCF	
WATER - BBL		GAS-OIL RATIO	
FLOW TBG PRESS		CASING PRESSURE	
CALCULATED 24-HOUR RATE		OIL - BBL	
GAS - MCF		WATER - BBL	
OIL GRAVITY-API (CORR)			
34 DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) non flaring			
TEST WITNESSED BY			
35 LIST OF ATTACHMENTS SUMMARY OF POROUS ZONES, WELLBORE DIAGRAM, Directional EOW report			
36 I hereby certify that the foregoing and attached information is complete and correct as determined from all available records			

SIGNED

Larry Higgins

TITLE Larry Higgins

DATE 9/14/11

ACCEPTED FOR RECORD

SEP 15 2011

FARMINGTON FIELD OFFICE

NMOCD

FORMATION	TOP		BOTTOM		DESCRIPTION, CONTENTS, ETC		NAME
KIRTLAND	2481'						
FRUITLAND	2916'						
PICTURED CLIFFS	3145'						

ROSA UNIT #279A- ReEntry BASIN FRUITLAND COAL

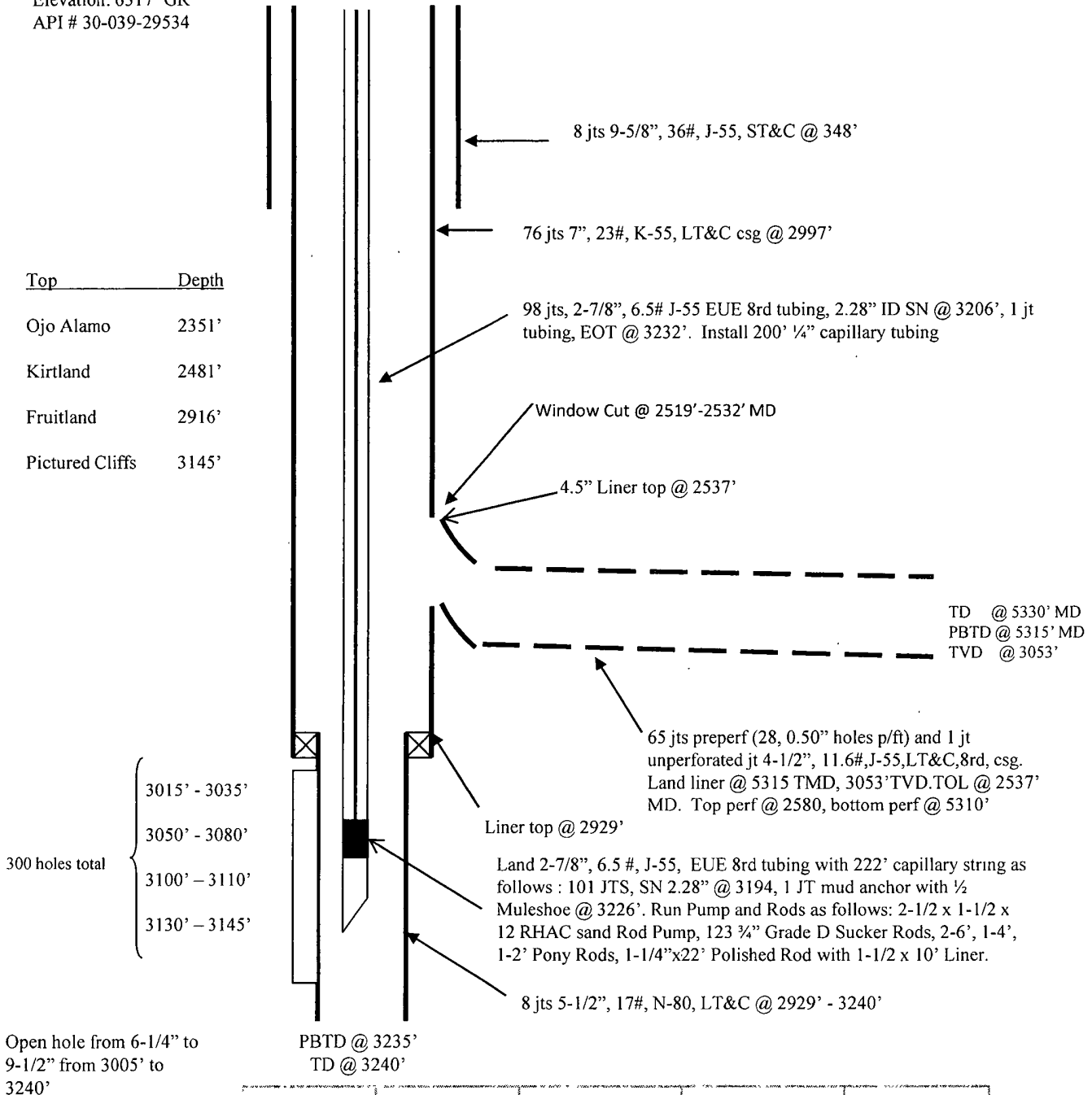
Location:

Sur: 1669' FSL and 698' FEL
NE/4 SE/4 Sec 35(I), T32N, R06W
BHL: 1816' FNL and 2386' FEL
SW/4 NE/4 Sec 35 (G), T32N, R-06W
Rio Arriba, New Mexico

Elevation: 6317' GR
API # 30-039-29534

Pumping Unit
Lufkin 114-143-64

Spud: 05/15/06
Completed: 06/06/06
1st Delivery: 06/22/06
Cavitate: 07/26/06
Pump Install: 05/23/08
Horiz re entry: 9/9/11



LH 9/13/11

Hole Size	Casing	Cement	Volume	Top of Cmt
12-1/4"	9-5/8", 36#	190 sx	268 cu. ft.	Surface
8-3/4"	7", 23#	450 sx	910 cu. ft.	Surface
6-1/4"	4-1/2", 11.6#	Did Not Cmt		
6-1/4"	5-1/2", 17#	Did Not Cmt		



Williams Energy

Rosa Unit #279A
Sec35 T32N-R6W - 279A

Rio Arriba Co. NM

GL: 6318' KB: 14'

PATHFINDER

A Schlumberger Company

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
44B	1.0	3042.9	-2152.0	2164396.66	156051.50	Circle (Radius: 50.0)
91B	1.0	-602.9	415.4	2160719.63	158573.94	Circle (Radius: 50.0)
91C	1.0	1175.0	-1867.4	2162525.46	156313.11	Circle (Radius: 50.0)
LAND	3040.0	325.9	-305.8	2161657.24	157864.22	Point
TD	3040.0	2152.6	-1879.6	2163503.14	156312.90	Point

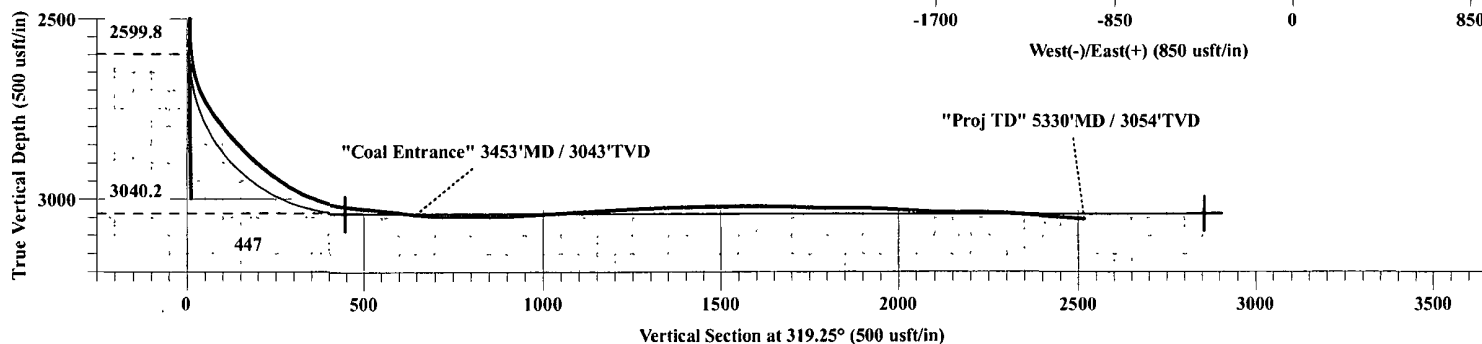
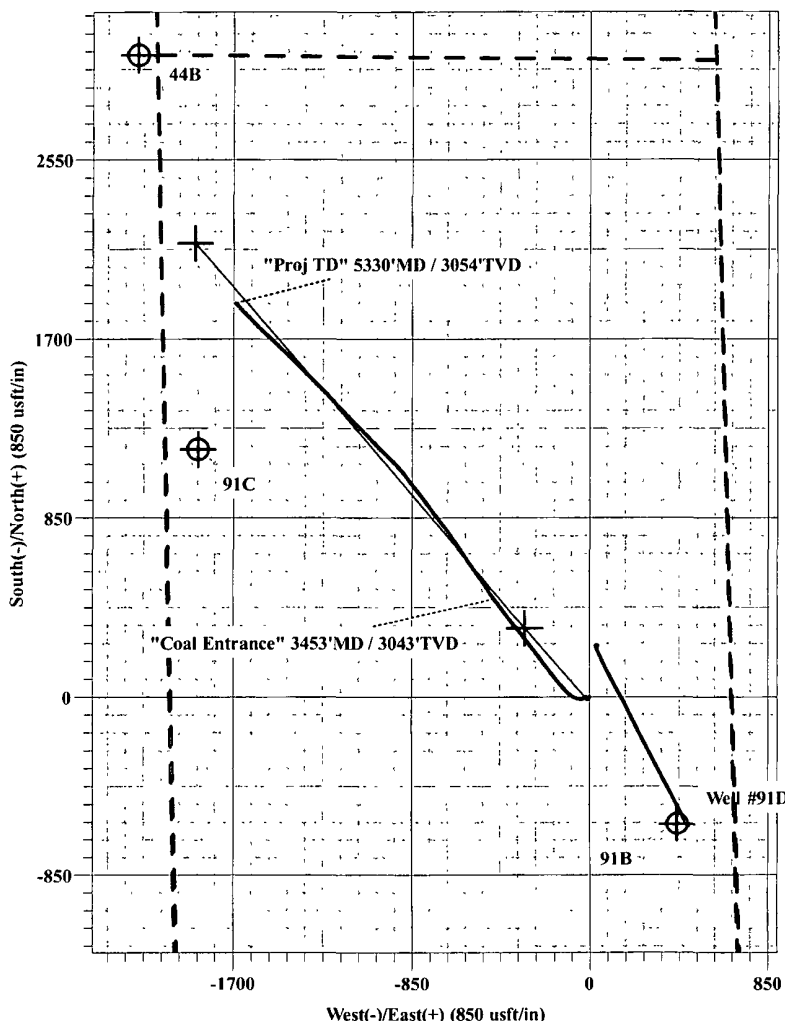
**EOW
No Hardlines
Crossed**

LEGEND

- Rosa Unit #279A, STK, STK V0
- ✕ Rosa Unit #279A, OH, OH V0
- △ Well #91D, Wellbore #1, Wellbore #1 V0
- Design #3

WELL DETAILS. Rosa Unit #279A

Northing	Easting	6318.0	Latitude	Longitude
2161327.62	158165.99	36° 56' 2.648 N	107° 25' 10.528 W	



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
2600.0	0.61	207.36	2599.8	-3.6	-16.2	0.00	0.00	7.8	
3290.9	90.00	319.25	3040.2	325.9	-305.8	13.06	111.89	446.6	
5702.1	90.00	319.25	3040.0	2152.6	-1879.6	0.00	0.00	2857.7	TD

Plan: Design #3 (Rosa Unit #279A/STK)

Created By: Frank C. Scardino

Date: 8/7/2011

Survey Report

Company:	Williams Energy	Local Co-ordinate Reference:	Site Sec35 T32N-R6W - 279A
Project:	Rio Arriba Co. NM	TVD Reference:	WELL @ 6332 0usft (Original Well Elev)
Site:	Sec35 T32N-R6W - 279A	MD Reference:	WELL @ 6332 0usft (Original Well Elev)
Well:	Rosa Unit #279A	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1: Single User Db.

Project	Rio Arriba Co. NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Site	Sec35 T32N-R6W - 279A		
Site Position:		Northing:	2,161,327.61 usft
From:	Lat/Long	Easting:	158,166.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 56' 2.648 N
		Longitude:	107° 25' 10.528 W
		Grid Convergence:	-0.70 °

Well	Rosa Unit #279A		
Well Position	+N-S	0.0 usft	Northing: 2,161,327.61 usft
	+E-W	0.0 usft	Easting: 158,166.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Ground Level:	6,318.0 usft

Wellbore	STK		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	06/03/11	9.78
			Dip Angle
			(°)
			Field Strength
			(nT)
			50,896

Design	STK		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			319.25

Survey Program	Date	08/19/11		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
200.0	5,330.0	Survey #1 (STK)	MWD	MWD - Standard

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.41	161.55	200.0	-0.7	0.2	-0.7	0.21	0.21	0.00
400.0	1.04	213.44	400.0	-2.9	-0.5	-1.8	0.43	0.32	25.95
600.0	1.19	213.49	599.9	-6.1	-2.7	-2.9	0.08	0.08	0.03
800.0	1.09	223.54	799.9	-9.2	-5.1	-3.6	0.11	-0.05	5.03
1,000.0	0.78	229.06	999.9	-11.5	-7.5	-3.8	0.16	-0.16	2.76
1,200.0	0.42	304.59	1,199.9	-12.0	-9.1	-3.1	0.39	-0.18	37.77
1,400.0	0.40	304.59	1,399.9	-11.2	-10.3	-1.7	0.01	-0.01	0.00
1,600.0	0.91	328.17	1,599.9	-9.4	-11.7	0.5	0.28	0.26	11.79
1,800.0	1.33	333.34	1,799.8	-6.0	-13.6	4.3	0.22	0.21	2.59

Survey Report

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Project:	Rio Arriba Co NM	TVD Reference:	WELL @ 6332 0usft (Original Well Elev)
Site:	Sec35 T32N-R6W - 279A	MD Reference:	WELL @ 6332 0usft (Original Well Elev)
Well:	Rosa Unit #279A	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,000.0	0.80	323.77	1,999.8	-2.8	-15.5	8.0	0.28	-0.27	-4.79
2,200.0	0.38	8.30	2,199.8	-1.0	-16.2	9.8	0.30	-0.21	22.27
2,400.0	0.37	151.05	2,399.8	-0.9	-15.8	9.6	0.36	-0.01	71.38
2,430.0	0.67	152.50	2,429.8	-1.2	-15.6	9.3	1.00	1.00	4.83
2,459.0	0.45	168.57	2,458.8	-1.4	-15.5	9.1	0.93	-0.76	55.41
2,490.0	0.60	166.74	2,489.8	-1.7	-15.5	8.8	0.49	0.48	-5.90
2,525.0	2.96	232.21	2,524.7	-2.4	-16.2	8.7	7.90	6.74	187.06
2,573.0	11.70	246.52	2,572.3	-5.1	-21.6	10.2	18.46	18.21	29.81
2,600.0	13.89	254.56	2,598.6	-7.1	-27.3	12.4	10.44	8.11	29.78
2,633.0	17.41	264.40	2,630.4	-8.6	-36.0	17.0	13.32	10.67	29.82
2,662.0	20.31	270.32	2,657.9	-9.0	-45.3	22.8	11.97	10.00	20.41
2,694.0	24.36	282.94	2,687.5	-7.5	-57.3	31.7	19.55	12.66	39.44
2,726.0	29.02	293.86	2,716.1	-2.9	-70.9	44.1	21.09	14.56	34.13
2,758.0	32.45	301.93	2,743.6	4.8	-85.3	59.3	16.74	10.72	25.22
2,790.0	35.70	310.66	2,770.1	15.4	-99.7	76.7	18.33	10.16	27.28
2,822.0	39.22	318.81	2,795.5	29.1	-113.4	96.1	18.98	11.00	25.47
2,853.0	41.15	320.04	2,819.2	44.3	-126.4	116.1	6.73	6.23	3.97
2,886.0	42.47	319.07	2,843.8	61.1	-140.7	138.1	4.45	4.00	-2.94
2,917.0	44.23	319.16	2,866.3	77.2	-154.6	159.4	5.68	5.68	0.29
2,948.0	47.40	320.97	2,887.9	94.2	-168.9	181.6	11.05	10.23	5.84
2,980.0	50.83	322.47	2,908.9	113.2	-183.9	205.8	11.29	10.72	4.69
3,012.0	53.38	323.11	2,928.5	133.3	-199.1	231.0	8.12	7.97	2.00
3,043.0	55.49	323.44	2,946.6	153.5	-214.2	256.1	6.86	6.81	1.06
3,075.0	58.39	323.90	2,964.0	175.1	-230.1	282.9	9.14	9.06	1.44
3,106.0	62.17	323.66	2,979.4	196.8	-246.0	309.7	12.21	12.19	-0.77
3,139.0	66.13	323.10	2,993.8	220.7	-263.7	339.3	12.10	12.00	-1.70
3,170.0	70.70	322.31	3,005.2	243.6	-281.2	368.1	14.93	14.74	-2.55
3,202.0	77.03	322.23	3,014.1	267.9	-300.0	398.8	19.78	19.78	-0.25
3,234.0	81.87	322.25	3,019.9	292.8	-319.2	430.2	15.13	15.13	0.06
3,266.0	84.42	322.08	3,023.7	317.9	-338.7	461.9	7.99	7.97	-0.53
3,297.0	84.33	321.99	3,026.8	342.2	-357.7	492.7	0.41	-0.29	-0.29
3,329.0	84.15	321.53	3,030.0	367.2	-377.4	524.5	1.54	-0.56	-1.44
3,361.0	83.89	322.20	3,033.3	392.2	-397.1	556.3	2.24	-0.81	2.09
3,425.0	83.36	322.24	3,040.4	442.5	-436.0	619.8	0.83	-0.83	0.06
3,453.0	84.92	323.02	3,043.3	464.6	-452.9	647.6	6.24	5.59	2.79
"Coal Entrance" 3453 MD / 3043 TVD									
3,488.0	86.88	323.99	3,045.8	492.7	-473.7	682.4	6.24	5.59	2.77
3,552.0	90.92	325.75	3,047.0	545.0	-510.5	746.1	6.89	6.31	2.75
3,616.0	90.13	324.83	3,046.4	597.6	-546.9	809.8	1.89	-1.23	-1.44
3,680.0	89.43	323.80	3,046.7	649.6	-584.3	873.5	1.95	-1.09	-1.61
3,743.0	92.68	325.02	3,045.5	700.8	-620.9	936.2	5.51	5.16	1.94
3,807.0	93.74	324.19	3,041.9	752.9	-657.9	999.8	2.10	1.66	-1.30
3,871.0	93.12	322.66	3,038.1	804.2	-696.0	1,063.6	2.58	-0.97	-2.39
3,934.0	93.83	323.36	3,034.3	854.4	-733.8	1,126.3	1.58	1.13	1.11

Survey Report

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Site:	Sec35 T32N-R6W - 279A	MD Reference:	WELL @ 6332 0usft (Original Well Elev)
Well:	Rosa Unit #279A	North Reference:	True
Wellbore:	STK	Survey Calculation Method:	Minimum Curvature
Design:	STK	Database:	EDM 5000 1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,999.0	92.51	322.69	3,030.7	906.3	-772.9	1,191.1	2.28	-2.03	-1.03
4,063.0	92.24	322.47	3,028.0	957.1	-811.7	1,254.9	0.54	-0.42	-0.34
4,127.0	92.24	322.48	3,025.5	1,007.8	-850.7	1,318.8	0.02	0.00	0.02
4,191.0	91.71	320.51	3,023.3	1,057.8	-890.5	1,382.7	3.19	-0.83	-3.08
4,255.0	92.24	316.75	3,021.1	1,105.8	-932.8	1,446.6	5.93	0.83	-5.88
4,320.0	90.75	314.57	3,019.4	1,152.3	-978.2	1,511.5	4.06	-2.29	-3.35
4,384.0	89.16	314.93	3,019.5	1,197.3	-1,023.6	1,575.3	2.55	-2.48	0.56
4,446.0	89.69	315.38	3,020.1	1,241.3	-1,067.4	1,637.1	1.12	0.85	0.73
4,509.0	87.67	315.51	3,021.5	1,286.2	-1,111.5	1,699.9	3.21	-3.21	0.21
4,571.0	88.20	314.98	3,023.8	1,330.2	-1,155.2	1,761.7	1.21	0.85	-0.85
4,635.0	89.69	316.04	3,025.0	1,375.8	-1,200.0	1,825.6	2.86	2.33	1.66
4,699.0	90.31	317.54	3,025.0	1,422.5	-1,243.8	1,889.5	2.54	0.97	2.34
4,762.0	87.32	314.47	3,026.3	1,467.8	-1,287.6	1,952.4	6.80	-4.75	-4.87
4,826.0	86.79	315.15	3,029.6	1,512.8	-1,332.9	2,016.1	1.35	-0.83	1.06
4,889.0	86.35	314.55	3,033.3	1,557.2	-1,377.5	2,078.8	1.18	-0.70	-0.95
4,954.0	89.25	315.07	3,035.8	1,602.9	-1,423.6	2,143.6	4.53	4.46	0.80
5,018.0	91.28	315.00	3,035.5	1,648.2	-1,468.8	2,207.4	3.17	3.17	-0.11
5,082.0	86.53	313.29	3,036.7	1,692.8	-1,514.7	2,271.1	7.89	-7.42	-2.67
5,145.0	86.53	313.58	3,040.6	1,736.0	-1,560.4	2,333.7	0.46	0.00	0.46
5,209.0	85.91	315.39	3,044.8	1,780.7	-1,605.9	2,397.3	2.98	-0.97	2.83
5,267.0	85.74	317.39	3,049.0	1,822.6	-1,645.8	2,455.1	3.45	-0.29	3.45
5,330.0	85.74	317.39	3,053.7	1,868.9	-1,688.3	2,517.9	0.00	0.00	0.00

"Proj TD" 5330' MD / 3054' TVD

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
3,453.0	3,043.3	464.6	-452.9	"Coal Entrance" 3453' MD / 3043' TVD
5,330.0	3,053.7	1,868.9	-1,688.3	"Proj TD" 5330' MD / 3054' TVD

Checked By: _____ Approved By: _____ Date: _____