

"As Drilled"

RECEIVED

District I

1825 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. Farmington Field Office
Bureau of Land Management

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

1 API Number 30-039-26906		2 Pool Code 71629		3 Pool Name Basin Fruitland Coal	
4 Property Code 21996		5 Property Name San Juan 32-5 Unit			6 Well Number 108 S
7 OGRID No. 162928		8 Operator Name Energen Resources Corporation			9 Elevation 6132'

10 Surface Location

UL or lot no. P	Section 27	Township 32N	Range 6W	Lot 1 dn	Feet from the 700'	North/South line South	Feet from the 1360'	East/West line East	County Rio Arriba
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11 Bottom Hole Location If Different From Surface

UL or lot no. J	Section 27	Township 32N	Range 6W	Lot 1 dn	Feet from the 2520'	North/South line South	Feet from the 2503'	East/West line East	County Rio Arriba
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12 Dedicated Acres 320 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.

2683.56'		2681.58'	
16		17 OPERATOR CERTIFICATION	
Producing Interval: From the bottom external casing packer set at 2687' MD @ 739' FSL, 1366' FEL to the BHL @ 2520' FSL, 2503' FEL.		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>Stephen Byers</i> 5/3/11 Signature Date Stephen Byers Printed Name sbyers@energen.com E-mail Address	
5348.64'		5274.72'	
27		18 SURVEYOR CERTIFICATION	
BHL		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. December 5, 2001 Date of Survey Signature and Seal of Professional Surveyor Jason C. Edwards Certificate Number 15269	
2663.10'		2845.28'	
2503'		1452'	
2520'		1360'	
Entry Point		SHL	
878'		700'	

ACCEPTED FOR RECORD

JUL 06 2011

NMOCD

FARMINGTON FIELD OFFICE



Energen Resources

**Rio Arriba County
Eul Canyon (True North)
San Juan 32-5 Unit #108S ST**

OH

Design: OH

Standard Survey Report

25 April, 2011



WELL DETAILS: San Juan 32-5 Unit #108S ST

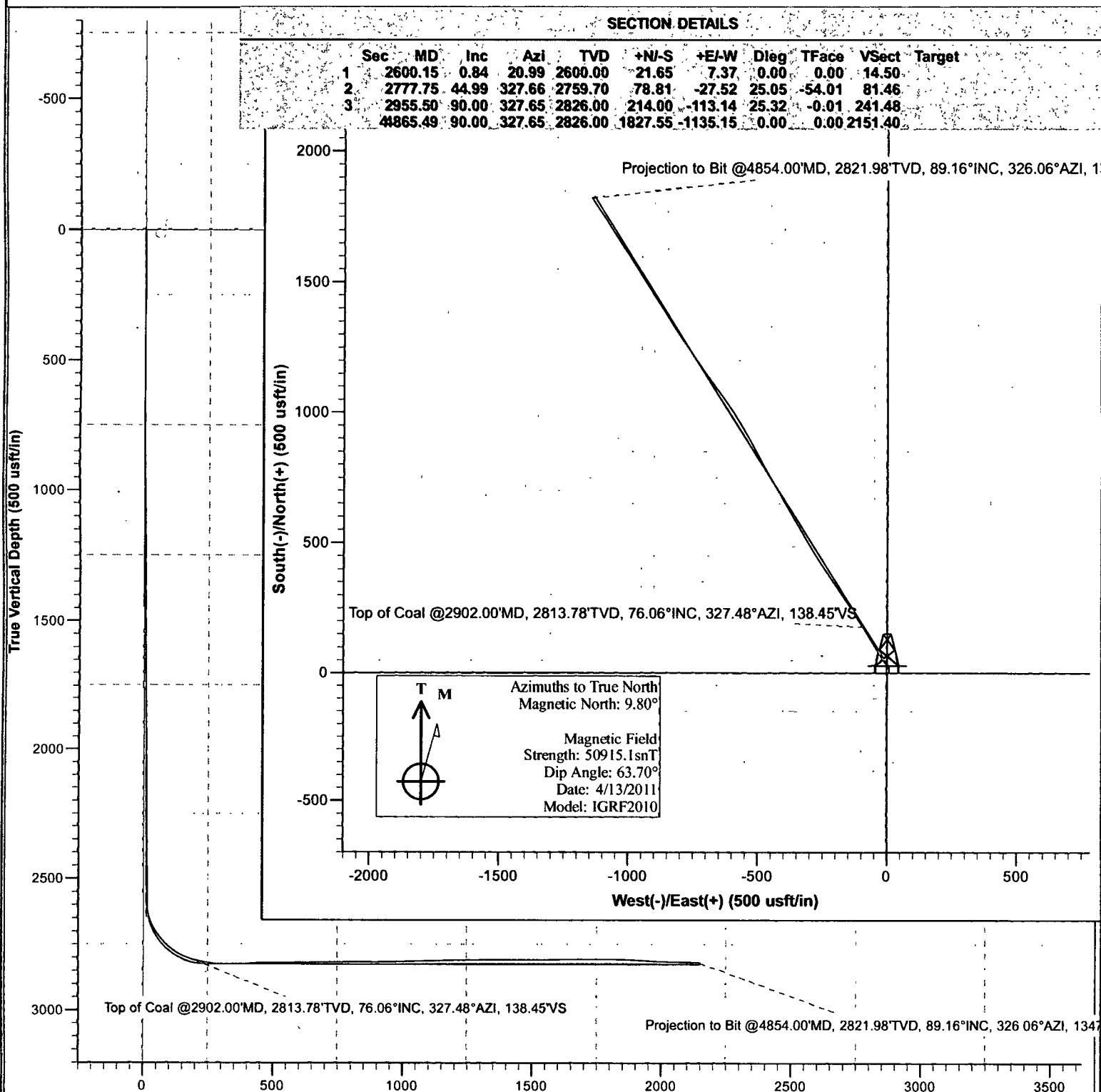
Ground Elevation: 6132.00
 RKB Elevation: WELL @ 6147.00usft (Original Well Elev)
 Rig Name: Original Well Elev

EOW

+N/-S +E/-W Northing Easting Latitude Longitude
 0.00 0.00 2165891.007 1292438.665 36° 56' 46.392 N 107° 26' 26.988 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	2600.15	0.84	20.99	2600.00	-21.65	7.37	0.00	0.00	14.50	
2	2777.75	44.99	327.66	2759.70	78.81	-27.52	25.05	-54.01	81.46	
3	2955.50	90.00	327.65	2826.00	214.00	-113.14	25.32	-0.01	241.48	
	4865.49	90.00	327.65	2826.00	1827.55	-1135.15	0.00	0.00	2151.40	



Company: Energen Resources
Project: Rio Arriba County
Site: Eul Canyon (True North)
Well: San Juan 32-5 Unit #108S ST
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well San Juan 32-5 Unit #108S ST
TVD Reference: WELL @ 6147.00usft (Original Well Elev)
MD Reference: WELL @ 6147.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Rio Arriba County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site	Eul Canyon (True North)		
Site Position:		Northing:	2,171,070.210 usft
From:	Map	Easting:	1,298,517.200 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	36° 57' 38.340 N
		Longitude:	107° 25' 12.900 W
		Grid Convergence:	-0.70 °

Well	San Juan 32-5 Unit #108S ST		
Well Position	+N/-S	0.00 usft	Northing: 2,165,891.008 usft
	+E/-W	0.00 usft	Easting: 1,292,438.665 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	36° 56' 46.392 N
		Longitude:	107° 26' 26.988 W
		Ground Level:	6,132.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	4/13/2011	(°)
			9.81
		Dip Angle	(°)
		63.70	
		Field Strength	(nT)
		50,915	

Design	OH		
Audit Notes:			
Version:	10	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
		Direction	(°)
		19.06	

Survey Program	Date 4/25/2011		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
200.00	2,400.00	GYRO (OH)	NS-GYRO-MS
2,579.60	4,854.00	MWD (OH)	MWD
			Description
			North sensing gyrocompassing m/s
			MWD - Standard

Survey	Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.51	69.60	200.00	0.31	0.83	0.57	0.26	0.26	0.00
	400.00	0.83	69.97	399.98	1.12	3.03	2.04	0.16	0.16	0.19
	600.00	0.91	47.36	599.96	2.69	5.56	4.36	0.17	0.04	-11.31
	800.00	0.54	35.61	799.94	4.53	7.28	6.66	0.20	-0.19	-5.88
	1,000.00	0.48	354.74	999.94	6.13	7.75	8.33	0.18	-0.03	-20.44
	1,200.00	0.49	340.67	1,199.93	7.77	7.39	9.76	0.06	0.01	-7.04
	1,400.00	0.65	3.89	1,399.92	9.71	7.18	11.52	0.14	0.08	11.61
	1,600.00	0.73	13.04	1,599.91	12.08	7.55	13.89	0.07	0.04	4.58
	1,800.00	0.57	354.03	1,799.89	14.31	7.73	16.05	0.13	-0.08	-9.51

Company: Energen Resources
 Project: Rio Arriba County
 Site: Eul Canyon (True North)
 Well: San Juan 32-5 Unit #108S ST
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well San Juan 32-5 Unit #108S ST
 TVD Reference: WELL @ 6147.00usft (Original Well Elev)
 MD Reference: WELL @ 6147.00usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 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)
2,000.00	0.32	329.77	1,999.89	15.79	7.35	17.32	0.15	-0.13	-12.13
2,200.00	0.52	337.72	2,199.88	17.11	6.72	18.37	0.10	0.10	3.98
2,400.00	0.68	11.29	2,399.87	19.11	6.61	20.22	0.19	0.08	16.79
2,579.60	0.82	20.18	2,579.46	21.36	7.26	22.56	0.10	0.08	4.95
2,608.98	5.54	333.59	2,608.78	22.83	6.70	23.77	17.06	16.07	-158.58
2,625.77	10.11	321.27	2,625.42	24.71	5.42	25.12	28.84	27.22	-73.38
2,655.08	18.55	322.75	2,653.79	30.44	0.98	29.09	28.82	28.80	5.05
2,684.22	26.56	324.70	2,680.68	39.46	-5.60	35.47	27.60	27.49	6.69
2,714.45	33.59	327.74	2,706.82	52.06	-13.98	44.64	23.79	23.26	10.06
2,744.74	40.27	328.17	2,731.02	67.48	-23.63	56.07	22.07	22.05	1.42
2,775.51	46.17	328.71	2,753.43	85.43	-34.65	69.43	19.21	19.17	1.75
2,806.25	53.38	327.96	2,773.27	105.39	-46.97	84.27	23.53	23.45	-2.44
2,836.98	60.67	327.92	2,789.99	127.22	-60.64	100.44	23.72	23.72	-0.13
2,867.90	67.97	328.58	2,803.38	150.91	-75.29	118.04	23.69	23.61	2.13
2,898.00	75.53	327.64	2,812.80	175.16	-90.39	136.03	25.29	25.12	-3.12
2,902.00	76.06	327.48	2,813.78	178.43	-92.47	138.45	13.81	13.25	-4.00
Top of Coal @2902.00MD, 2813.78TVD, 76.06INC, 327.48AZI, 138.45VS									
2,929.00	79.67	326.42	2,819.45	200.55	-106.86	154.65	13.91	13.37	-3.93
2,960.00	82.22	327.03	2,824.33	226.14	-123.66	173.36	8.45	8.23	1.97
2,990.00	85.38	326.94	2,827.57	251.15	-139.90	191.69	10.54	10.53	-0.30
3,021.00	89.34	326.87	2,829.00	277.09	-156.81	210.68	12.78	12.77	-0.23
3,051.00	91.71	326.30	2,828.72	302.12	-173.33	228.95	8.13	7.90	-1.90
3,082.00	93.65	325.00	2,827.28	327.69	-190.80	247.41	7.53	6.26	-4.19
3,112.00	92.68	325.11	2,825.62	352.24	-207.96	265.01	3.25	-3.23	0.37
3,143.00	91.54	325.45	2,824.48	377.70	-225.60	283.31	3.84	-3.68	1.10
3,174.00	91.10	326.79	2,823.76	403.43	-242.88	301.99	4.55	-1.42	4.32
3,205.00	90.40	327.72	2,823.36	429.50	-259.64	321.16	3.75	-2.26	3.00
3,234.00	90.48	328.25	2,823.14	454.09	-275.02	339.38	1.85	0.28	1.83
3,265.00	89.87	328.93	2,823.04	480.55	-291.17	359.11	2.95	-1.97	2.19
3,295.00	90.31	328.57	2,822.99	506.20	-306.74	378.26	1.90	1.47	-1.20
3,326.00	90.66	329.12	2,822.73	532.73	-322.77	398.10	2.10	1.13	1.77
3,356.00	90.84	330.00	2,822.34	558.59	-337.97	417.58	2.99	0.60	2.93
3,386.00	90.66	330.09	2,821.95	584.58	-352.95	437.25	0.67	-0.60	0.30
3,417.00	90.57	330.20	2,821.61	611.46	-368.38	457.62	0.46	-0.29	0.35
3,448.00	90.75	329.46	2,821.26	638.26	-383.96	477.87	2.46	0.58	-2.39
3,479.00	91.45	329.58	2,820.66	664.97	-399.68	497.98	2.29	2.26	0.39
3,509.00	90.04	329.21	2,820.27	690.79	-414.95	517.39	4.86	-4.70	-1.23
3,539.00	90.13	330.55	2,820.23	716.74	-430.01	537.00	4.48	0.30	4.47
3,569.00	89.16	330.84	2,820.41	742.90	-444.69	556.93	3.37	-3.23	0.97
3,600.00	89.87	331.69	2,820.67	770.08	-459.59	577.75	3.57	2.29	2.74
3,631.00	91.36	330.58	2,820.34	797.23	-474.55	598.52	5.99	4.81	-3.58
3,662.00	91.01	331.19	2,819.70	824.30	-489.63	619.19	2.27	-1.13	1.97
3,693.00	91.63	330.40	2,818.99	851.35	-504.76	639.82	3.24	2.00	-2.55

Company: Energen Resources
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 Site: Eul Canyon (True North)
 Well: San Juan 32-5 Unit #108S ST
 Wellbore: OH
 Design: OH

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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)
3,723.00	90.75	330.70	2,818.36	877.47	-519.50	659.69	3.10	-2.93	1.00
3,753.00	90.57	330.47	2,818.02	903.60	-534.24	679.58	0.97	-0.60	-0.77
3,784.00	91.63	330.09	2,817.42	930.52	-549.60	700.00	3.63	3.42	-1.23
3,815.00	91.89	329.02	2,816.47	957.23	-565.30	720.12	3.55	0.84	-3.45
3,845.00	91.80	328.45	2,815.50	982.86	-580.86	739.26	1.92	-0.30	-1.90
3,876.00	91.89	326.61	2,814.51	1,009.00	-597.50	758.54	5.94	0.29	-5.94
3,907.00	91.19	324.60	2,813.67	1,034.57	-615.00	776.99	6.86	-2.26	-6.48
3,938.00	91.80	323.99	2,812.86	1,059.73	-633.09	794.86	2.78	1.97	-1.97
3,968.00	90.92	323.18	2,812.15	1,083.87	-650.89	811.86	3.99	-2.93	-2.70
3,999.00	89.78	323.83	2,811.96	1,108.79	-669.33	829.39	4.23	-3.68	2.10
4,029.00	89.78	324.16	2,812.08	1,133.06	-686.96	846.57	1.10	0.00	1.10
4,061.00	89.78	324.75	2,812.20	1,159.10	-705.57	865.11	1.84	0.00	1.84
4,093.00	90.22	323.90	2,812.20	1,185.09	-724.23	883.58	2.99	1.38	-2.66
4,125.00	90.04	325.32	2,812.13	1,211.18	-742.76	902.18	4.47	-0.56	4.44
4,157.00	90.66	325.58	2,811.93	1,237.53	-760.91	921.17	2.10	1.94	0.81
4,189.00	90.13	325.71	2,811.71	1,263.95	-778.96	940.24	1.71	-1.66	0.41
4,220.00	90.13	326.88	2,811.64	1,289.74	-796.17	958.99	3.77	0.00	3.77
4,252.00	90.04	327.51	2,811.59	1,316.63	-813.50	978.75	1.99	-0.28	1.97
4,284.00	90.31	327.91	2,811.50	1,343.69	-830.60	998.74	1.51	0.84	1.25
4,316.00	91.54	327.95	2,810.98	1,370.80	-847.59	1,018.82	3.85	3.84	0.13
4,347.00	91.63	326.39	2,810.12	1,396.84	-864.39	1,037.94	5.04	0.29	-5.03
4,379.00	90.22	326.56	2,809.61	1,423.51	-882.06	1,057.38	4.44	-4.41	0.53
4,410.00	90.22	326.81	2,809.49	1,449.41	-899.08	1,076.30	0.81	0.00	0.81
4,442.00	90.13	327.64	2,809.39	1,476.32	-916.41	1,096.08	2.61	-0.28	2.59
4,474.00	90.22	327.78	2,809.29	1,503.37	-933.50	1,116.06	0.52	0.28	0.44
4,505.00	89.87	327.69	2,809.27	1,529.58	-950.05	1,135.43	1.17	-1.13	-0.29
4,536.00	88.20	326.75	2,809.79	1,555.64	-966.83	1,154.58	6.18	-5.39	-3.03
4,568.00	88.11	325.96	2,810.82	1,582.27	-984.55	1,173.96	2.48	-0.28	-2.47
4,600.00	87.41	326.31	2,812.07	1,608.82	-1,002.37	1,193.24	2.45	-2.19	1.09
4,632.00	86.53	326.37	2,813.76	1,635.42	-1,020.08	1,212.59	2.76	-2.75	0.19
4,663.00	86.53	326.52	2,815.64	1,661.20	-1,037.18	1,231.38	0.48	0.00	0.48
4,695.00	86.70	326.65	2,817.53	1,687.87	-1,054.77	1,250.83	0.67	0.53	0.41
4,727.00	87.23	326.44	2,819.22	1,714.53	-1,072.39	1,270.28	1.78	1.66	-0.66
4,758.00	88.55	326.75	2,820.36	1,740.39	-1,089.45	1,289.15	4.37	4.26	1.00
4,798.00	89.16	326.06	2,821.16	1,773.70	-1,111.57	1,313.41	2.30	1.53	-1.73
4,854.00	89.16	326.06	2,821.98	1,820.15	-1,142.84	1,347.11	0.00	0.00	0.00

Projection to Bit @4854.00'MD, 2821.98'TVD, 89.16°INC, 326.06°AZI, 1347.11'VS

Company: Energen Resources
Project: Rio Arriba County
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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,902.00	2,813.78	178.43	-92.47	Top of Coal @2902.00'MD, 2813.78'TVD, 76.06°INC, 327.48°AZI, 138.
4,854.00	2,821.98	1,820.15	-1,142.84	Projection to Bit @4854.00'MD, 2821.98'TVD, 89.16°INC, 326.06°AZI,

Checked By: _____ Approved By: _____ Date: _____