

District I
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
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-102
Revised October 12, 2005

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

RCVD JUN 9 '08
AMENDED REPORT
OIL CONS. DIV.

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-24338	² Pool Code 71629	³ Pool Name Basin Fruitland Coal	DIST. 3
⁴ Property Code 22045	⁵ Property Name San Juan 32-5 Unit NP		⁶ Well Number 101
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation		⁹ Elevation 6404'

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
H	23	32N	06W		2325'	North	1010'	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	23	32N	06W		111'	North	2485'	East	Rio Arriba

¹² Dedicated Acres 160 NE/4	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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6-16-08

Coal entry 2086/N 1236/E M 23176 TV 23010

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, 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 Signature: <u>Vicki Donaghey</u> Date: <u>06/06/08</u> Printed Name: <u>Vicki Donaghey</u> Regulatory Analyst	
		¹⁸ SURVEYOR CERTIFICATION 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 2, 1988</u> Signature and Seal of Professional Surveyer Original survey conducted & recorded by: <u>Mark C. Edwards</u> <u>6857</u> Certificate Number	

Energen Resources

SJ BR - NE S23, T32N, R6W

Eul Canyon

San Juan 32-5 Unit NP #101

Horizontal Sidetrack Recompletion

RCVD MAY 27 '08

OIL CONS. DIV.

DIST. 3

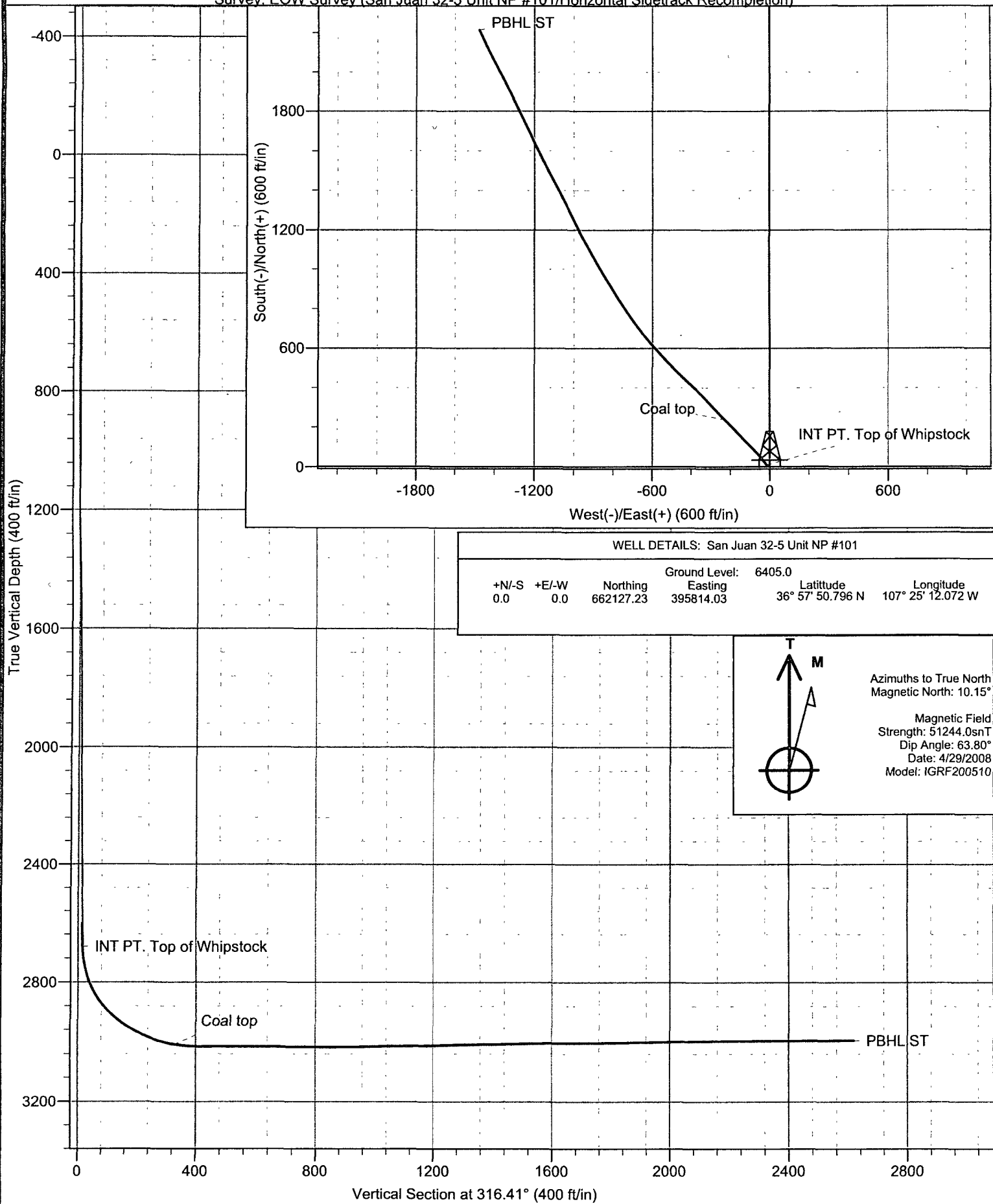
Survey: EOW Survey

End of Well Survey

12 May, 2008

PATHFINDER
ENERGY SERVICES

Survey: EOW Survey (San Juan 32-5 Unit NP #101/Horizontal Sidetrack Recompletion)



Pathfinder Energy Services
End of Well Survey



Company: Energen Resources
Project: SJ BR - NE S23, T32N, R6W
Site: Eul Canyon
Well: San Juan 32-5 Unit NP #101
Wellbore: Horizontal Sidetrack Recompletion
Design: Horizontal Sidetrack Recompletion

Local Co-ordinate Reference: Well San Juan 32-5 Unit NP #101
TVD Reference: AWS 289 RKB=15' @ 6420.0ft (AWS 289 RKB=1
MD Reference: AWS 289 RKB=15' @ 6420.0ft (AWS 289 RKB=1
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project SJ BR - NE S23, T32N, R6W

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Central Zone

System Datum: Mean Sea Level

Site Eul Canyon

Site Position: **Northing:** 662,127.23 m **Latitude:** 36° 57' 50.796 N
From: Map **Easting:** 395,814.03 m **Longitude:** 107° 25' 12.072 W
Position Uncertainty: 0.0 ft **Slot Radius:** in **Grid Convergence:** -0.70 °

Well San Juan 32-5 Unit NP #101

Well Position **+N/-S** 0.0 ft **Northing:** 662,127.23 m **Latitude:** 36° 57' 50.796 N
+E/-W 0.0 ft **Easting:** 395,814.03 m **Longitude:** 107° 25' 12.072 W
Position Uncertainty 0.0 ft **Wellhead Elevation:** ft **Ground Level:** 6,405.0 ft

Wellbore Horizontal Sidetrack Recompletion

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/29/2008	10.15	63.81	51,244

Design Horizontal Sidetrack Recompletion

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	316.41

Survey Program **Date** 5/12/2008

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
5.0	2,605.0	Survey #1 Gyro (Horizontal Sidetrack Rec		
2,605.0	5,534.0	EOW Survey (Horizontal Sidetrack Recom	MWD	MWD - Standard

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
2,605.0	0.90	342.40	2,604.9	9.9	-13.5	0.00	16.5
2,680.9	1.04	347.96	2,680.8	11.1	-13.9	0.22	17.6
INT PT. Top of Whipstock							
2,789.8	18.29	320.04	2,787.7	25.3	-25.1	15.96	35.7
2,821.2	24.80	322.11	2,816.9	34.3	-32.3	20.87	47.1
2,852.4	31.39	321.18	2,844.4	45.8	-41.5	21.17	61.8
2,883.7	37.64	319.24	2,870.2	59.4	-52.8	20.27	79.5
2,912.8	43.09	316.72	2,892.4	73.4	-65.4	19.55	98.3
2,944.1	48.89	315.06	2,914.1	89.5	-81.1	18.92	120.8
2,975.5	54.26	315.38	2,933.6	107.0	-98.4	17.12	145.4
3,006.8	59.44	316.25	2,950.7	125.8	-116.7	16.71	171.6

Pathfinder Energy Services

End of Well Survey



Company: Energen Resources
Project: SJ BR - NE S23, T32N, R6W
Site: Eul Canyon
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Wellbore: Horizontal Sidetrack Recompletion
Design: Horizontal Sidetrack Recompletion

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North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
3,038.2	61.55	316.65	2,966.2	145.6	-135.5	6.81	198.9
3,069.6	65.51	316.60	2,980.2	166.0	-154.8	12.61	227.0
3,100.8	70.35	315.99	2,991.9	186.9	-174.8	15.62	255.9
3,131.9	75.10	314.86	3,001.2	208.1	-195.6	15.66	285.6
3,168.0	80.28	315.35	3,008.8	233.0	-220.5	14.41	320.8
3,176.0	81.12	315.45	3,010.1	238.7	-226.1	10.59	328.7
Coal top							
3,199.0	83.54	315.75	3,013.2	254.9	-242.0	10.59	351.5
3,231.0	86.26	316.37	3,016.1	277.9	-264.1	8.72	383.4
3,262.0	89.34	317.36	3,017.2	300.5	-285.3	10.44	414.4
3,293.0	91.01	317.19	3,017.1	323.3	-306.3	5.41	445.3
3,325.0	90.40	315.60	3,016.8	346.4	-328.4	5.32	477.3
3,356.0	88.99	314.07	3,016.9	368.3	-350.4	6.71	508.3
3,387.0	89.52	313.48	3,017.3	389.7	-372.8	2.56	539.3
3,418.0	90.40	313.38	3,017.3	411.0	-395.3	2.86	570.3
3,450.0	90.13	312.69	3,017.2	432.9	-418.7	2.32	602.2
3,481.0	89.78	313.62	3,017.2	454.1	-441.3	3.21	633.1
3,512.0	89.60	314.01	3,017.4	475.5	-463.6	1.39	664.1
3,543.0	89.60	314.61	3,017.6	497.2	-485.8	1.94	695.1
3,575.0	89.34	315.54	3,017.9	519.9	-508.4	3.02	727.1
3,606.0	89.34	317.08	3,018.3	542.3	-529.8	4.97	758.1
3,637.0	88.99	317.14	3,018.7	565.0	-550.9	1.15	789.1
3,669.0	89.96	317.61	3,019.0	588.5	-572.6	3.37	821.1
3,700.0	89.78	317.50	3,019.1	611.4	-593.5	0.68	852.1
3,731.0	90.84	319.52	3,018.9	634.6	-614.1	7.36	883.0
3,763.0	91.01	320.72	3,018.4	659.2	-634.6	3.79	915.0
3,794.0	90.84	321.62	3,017.9	683.3	-654.0	2.95	945.9
3,825.0	91.54	323.23	3,017.2	707.9	-672.9	5.66	976.7
3,856.0	91.54	323.21	3,016.4	732.7	-691.5	0.06	1,007.4
3,888.0	90.84	325.07	3,015.7	758.6	-710.2	6.21	1,039.1
3,919.0	90.75	325.64	3,015.3	784.1	-727.8	1.86	1,069.8
3,950.0	90.92	326.69	3,014.9	809.9	-745.1	3.43	1,100.3
3,981.0	90.31	326.97	3,014.5	835.8	-762.0	2.17	1,130.8
4,013.0	90.40	327.78	3,014.3	862.8	-779.3	2.55	1,162.2
4,044.0	91.45	328.20	3,013.8	889.1	-795.7	3.65	1,192.6
4,075.0	91.45	328.72	3,013.0	915.5	-811.9	1.68	1,222.9
4,106.0	91.63	329.27	3,012.2	942.0	-827.9	1.87	1,253.1
4,137.0	91.28	329.05	3,011.4	968.6	-843.8	1.33	1,283.4
4,169.0	91.19	329.89	3,010.7	996.2	-860.0	2.64	1,314.5
4,200.0	91.19	330.61	3,010.1	1,023.1	-875.4	2.32	1,344.6
4,231.0	90.75	330.83	3,009.6	1,050.1	-890.6	1.59	1,374.7
4,263.0	90.40	330.30	3,009.2	1,078.0	-906.3	1.98	1,405.7
4,295.0	91.45	331.30	3,008.7	1,105.9	-921.9	4.53	1,436.7
4,325.0	91.54	331.67	3,007.9	1,132.3	-936.2	1.27	1,465.6
4,356.0	90.84	331.01	3,007.3	1,159.5	-951.1	3.10	1,495.6

Pathfinder Energy Services
End of Well Survey



Company: Energen Resources
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Site: Eul Canyon
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Wellbore: Horizontal Sidetrack Recompletion
Design: Horizontal Sidetrack Recompletion

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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	DLeg (°/100ft)	V. Sec (ft)
4,387.0	91.36	331.19	3,006.7	1,186.6	-966.1	1.78	1,525.6
4,418.0	91.45	332.66	3,005.9	1,214.0	-980.7	4.75	1,555.4
4,449.0	90.31	333.28	3,005.5	1,241.6	-994.7	4.19	1,585.1
4,479.0	89.96	333.65	3,005.4	1,268.4	-1,008.1	1.70	1,613.8
4,510.0	90.75	334.30	3,005.2	1,296.3	-1,021.7	3.30	1,643.4
4,541.0	90.22	334.32	3,004.9	1,324.2	-1,035.2	1.71	1,672.9
4,572.0	90.22	333.50	3,004.8	1,352.0	-1,048.8	2.65	1,702.4
4,603.0	90.13	332.46	3,004.7	1,379.7	-1,062.9	3.37	1,732.1
4,633.0	90.40	332.27	3,004.6	1,406.2	-1,076.8	1.10	1,761.0
4,664.0	90.66	332.96	3,004.3	1,433.8	-1,091.1	2.38	1,790.7
4,696.0	90.22	332.42	3,004.1	1,462.2	-1,105.7	2.18	1,821.5
4,727.0	91.01	332.93	3,003.7	1,489.7	-1,120.0	3.03	1,851.2
4,758.0	91.19	333.17	3,003.1	1,517.4	-1,134.0	0.97	1,880.9
4,789.0	90.40	332.88	3,002.7	1,545.0	-1,148.1	2.71	1,910.6
4,821.0	90.75	333.44	3,002.4	1,573.5	-1,162.5	2.06	1,941.3
4,852.0	91.71	334.59	3,001.7	1,601.4	-1,176.1	4.83	1,970.8
4,883.0	91.71	334.91	3,000.8	1,629.4	-1,189.3	1.03	2,000.2
4,914.0	90.92	334.12	3,000.1	1,657.4	-1,202.7	3.60	2,029.7
4,944.0	90.75	334.48	2,999.6	1,684.4	-1,215.7	1.33	2,058.2
4,976.0	91.01	334.58	2,999.2	1,713.3	-1,229.4	0.87	2,088.6
5,007.0	91.10	334.39	2,998.6	1,741.3	-1,242.8	0.68	2,118.1
5,038.0	90.57	334.23	2,998.1	1,769.2	-1,256.2	1.79	2,147.6
5,070.0	90.22	334.56	2,997.9	1,798.1	-1,270.0	1.50	2,178.0
5,101.0	90.31	333.78	2,997.8	1,826.0	-1,283.6	2.53	2,207.5
5,133.0	89.87	333.62	2,997.7	1,854.7	-1,297.7	1.46	2,238.1
5,164.0	90.04	334.06	2,997.7	1,882.5	-1,311.4	1.52	2,267.7
5,195.0	90.48	333.96	2,997.6	1,910.4	-1,325.0	1.46	2,297.2
5,226.0	90.57	333.41	2,997.3	1,938.1	-1,338.7	1.80	2,326.8
5,258.0	90.75	333.03	2,996.9	1,966.7	-1,353.1	1.31	2,357.5
5,289.0	89.43	332.72	2,996.9	1,994.3	-1,367.3	4.37	2,387.2
5,320.0	90.22	332.73	2,997.0	2,021.8	-1,381.5	2.55	2,416.9
5,352.0	90.40	333.08	2,996.8	2,050.3	-1,396.1	1.23	2,447.6
5,383.0	90.57	333.16	2,996.6	2,078.0	-1,410.1	0.61	2,477.3
5,414.0	90.48	333.95	2,996.3	2,105.7	-1,423.9	2.56	2,506.9
5,445.0	90.66	334.67	2,996.0	2,133.7	-1,437.3	2.39	2,536.4
5,474.0	90.31	335.04	2,995.7	2,159.9	-1,449.6	1.76	2,563.9
5,534.0	90.31	335.04	2,995.4	2,214.3	-1,475.0	0.00	2,620.8

PBHL ST

Pathfinder Energy Services
End of Well Survey



Company: Energen Resources
Project: SJ BR - NE S23, T32N, R6W
Site: Eul Canyon
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Wellbore: Horizontal Sidetrack Recompletion
Design: Horizontal Sidetrack Recompletion

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MD Reference: AWS 289 RKB=15' @ 6420.0ft (AWS 289 RKB=1
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,680.9	2,680.8	11.1	-13.9	INT PT. Top of Whipstock
3,176.0	3,010.1	238.7	-226.1	Coal top
5,534.0	2,995.4	2,214.3	-1,475.0	PBHL ST

Checked By: _____ Approved By: _____ Date: _____