

Operator: RKI Exploration
Well/Lease: North Brushy 35-3H
County: Eddy

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STATE OF NEW MEXICO
DEVIATION REPORT

30-015-40185

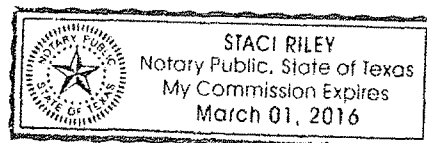
<u>Footage</u>	<u>Degree</u>
313	0.30
676	0.62
1155	0.78
1504	0.50
2050	0.77
2430	1.35
2801	1.02
3106	2.37
3297	1.55
3801	0.55
4377	0.37
4875	0.56
5390	0.80
5800	0.86
6298	0.92
6776	0.80
6812	0.80
6843	5.20

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Signed By: Charles Walsh
Charles Walsh, Division Manager
Pioneer Energy Services

Appeared before me on Sept. 16, 2013.

Staci Riley
Notary Public



RKI Exploration & Production

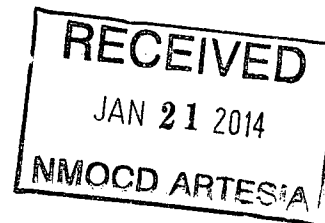
Eddy County (NM83E)

Sec 35-T25S-R29E

North Brushy Draw Fed 35-3H

Wellbore #1

Survey: MWD Surveys



Standard Survey Report

27 August, 2013

Wolverine Directional, LLC

Survey Report

Company:	RKI Exploration & Production	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-3H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	North Brushy Draw Fed 35-3H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 2003.21 Single User Db

Design:	Wellbore #1			
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	0.03

Survey Program:	Date 2013/08/27			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.0	11,800.0	MWD Surveys (Wellbore #1)	MWD	MWD - Standard

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/S (ft)	+E/W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.29	77.47	100.0	0.1	0.2	0.1	0.29	0.29	0.00
First GYRO Survey									
200.0	0.38	86.54	200.0	0.1	0.8	0.1	0.10	0.09	9.08
300.0	0.22	94.37	300.0	0.1	1.3	0.1	0.17	-0.16	7.82
400.0	0.86	48.08	400.0	0.6	2.1	0.6	0.73	0.65	-46.29
500.0	0.88	6.25	500.0	1.9	2.7	1.9	0.62	0.01	-41.83
600.0	0.78	24.58	600.0	3.3	3.1	3.3	0.28	-0.10	18.33
700.0	0.47	4.00	700.0	4.3	3.4	4.3	0.38	-0.31	-20.58
800.0	0.39	337.86	800.0	5.0	3.3	5.0	0.21	-0.07	-26.14
900.0	0.55	348.23	900.0	5.8	3.1	5.8	0.18	0.16	10.37
1,000.0	0.56	310.74	1,000.0	6.6	2.6	6.6	0.36	0.01	-37.49
1,100.0	0.73	323.35	1,099.9	7.4	1.9	7.4	0.22	0.17	12.60
1,200.0	0.61	275.43	1,199.9	8.0	1.0	8.0	0.55	-0.12	-47.91
1,300.0	0.87	253.21	1,299.9	7.8	-0.3	7.8	0.38	0.26	-22.22
1,400.0	0.72	240.58	1,399.9	7.3	-1.6	7.3	0.23	-0.15	-12.64
1,500.0	0.61	219.04	1,499.9	6.6	-2.4	6.6	0.27	-0.11	-21.53
1,600.0	0.90	213.79	1,599.9	5.5	-3.2	5.5	0.30	0.29	-5.26
1,700.0	1.32	232.81	1,699.9	4.1	-4.6	4.1	0.55	0.41	19.02
1,800.0	1.27	226.46	1,799.9	2.7	-6.3	2.7	0.15	-0.05	-6.35
1,900.0	1.36	233.32	1,899.8	1.2	-8.1	1.2	0.18	0.09	6.86
2,000.0	1.36	236.68	1,999.8	-0.2	-10.0	-0.2	0.08	0.01	3.37
2,100.0	1.31	238.62	2,099.8	-1.4	-12.0	-1.4	0.07	-0.05	1.93
2,200.0	1.46	264.15	2,199.8	-2.1	-14.2	-2.1	0.63	0.14	25.53
2,300.0	1.69	268.60	2,299.7	-2.3	-17.0	-2.3	0.26	0.23	4.46
2,400.0	1.53	241.84	2,399.7	-3.0	-19.6	-3.0	0.76	-0.16	-26.76
2,500.0	1.49	194.72	2,499.6	-4.9	-21.1	-4.9	1.21	-0.03	-47.12
2,600.0	1.69	124.12	2,599.6	-6.9	-20.2	-7.0	1.85	0.20	-70.60
2,700.0	2.57	86.39	2,699.6	-7.6	-16.8	-7.6	1.61	0.88	-37.73
2,800.0	3.15	83.40	2,799.4	-7.2	-11.8	-7.2	0.60	0.59	-2.99
2,900.0	3.83	92.61	2,899.2	-7.0	-5.7	-7.0	0.88	0.68	9.21
3,000.0	3.51	104.13	2,999.0	-7.9	0.6	-7.9	0.80	-0.32	11.52
3,100.0	2.58	106.79	3,098.9	-9.3	5.7	-9.3	0.94	-0.93	2.66
3,200.0	1.79	103.49	3,198.8	-10.3	9.4	-10.3	0.79	-0.79	-3.29
3,300.0	1.51	103.61	3,298.8	-11.0	12.2	-11.0	0.28	-0.28	0.11
3,400.0	1.31	104.16	3,398.8	-11.6	14.5	-11.6	0.20	-0.20	0.55
3,500.0	0.91	115.75	3,498.7	-12.2	16.4	-12.2	0.46	-0.41	11.59
3,600.0	0.62	137.52	3,598.7	-12.9	17.4	-12.9	0.40	-0.29	21.77
3,700.0	0.54	143.25	3,698.7	-13.7	18.1	-13.7	0.10	-0.08	5.73

Wolverine Directional, LLC

Survey Report

Company:	RKI Exploration & Production	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-3H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	North Brushy Draw Fed 35-3H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM:2003-21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,800.0	0.68	162.88	3,798.7	-14.7	18.5	-14.6	0.25	0.14	19.64
3,900.0	0.58	160.42	3,898.7	-15.7	18.9	-15.7	0.10	-0.10	-2.46
4,000.0	0.53	142.72	3,998.7	-16.5	19.3	-16.5	0.18	-0.05	-17.71
4,100.0	0.55	137.22	4,098.7	-17.3	19.9	-17.3	0.06	0.02	-5.49
4,200.0	0.50	151.08	4,198.7	-18.0	20.5	-18.0	0.14	-0.05	13.85
4,300.0	0.45	132.63	4,298.7	-18.7	21.0	-18.6	0.16	-0.05	-18.45
4,400.0	0.60	140.72	4,398.7	-19.3	21.6	-19.3	0.16	0.14	8.09
4,500.0	0.52	139.36	4,498.7	-20.1	22.2	-20.1	0.08	-0.08	-1.36
4,600.0	0.49	125.80	4,598.7	-20.7	22.9	-20.6	0.12	-0.03	-13.55
4,700.0	0.47	120.93	4,698.7	-21.1	23.6	-21.1	0.05	-0.02	-4.87
4,800.0	0.49	133.35	4,798.7	-21.6	24.2	-21.6	0.11	0.03	12.42
4,900.0	0.64	134.89	4,898.7	-22.3	24.9	-22.3	0.14	0.14	1.54
5,000.0	0.55	126.56	4,998.7	-23.0	25.7	-23.0	0.13	-0.09	-8.33
5,100.0	0.45	149.63	5,098.7	-23.6	26.3	-23.6	0.22	-0.10	23.07
5,200.0	0.37	151.22	5,198.7	-24.2	26.6	-24.2	0.07	-0.07	1.59
5,300.0	0.69	166.75	5,298.6	-25.1	26.9	-25.1	0.34	0.31	15.53
Last GYRO Survey									
5,310.0	0.82	136.35	5,308.6	-25.2	27.0	-25.2	4.18	1.38	-304.03
First HAL Survey									
5,340.0	1.01	202.51	5,338.6	-25.6	27.1	-25.6	3.39	0.63	220.55
5,370.0	1.07	191.21	5,368.6	-26.1	26.9	-26.1	0.71	0.19	-37.67
5,400.0	0.64	145.93	5,398.6	-26.6	26.9	-26.5	2.56	-1.42	-150.93
5,430.0	1.09	203.82	5,428.6	-27.0	26.9	-26.9	3.07	1.47	192.96
5,460.0	0.95	153.45	5,458.6	-27.4	26.9	-27.4	2.92	-0.44	-167.89
5,490.0	0.49	204.37	5,488.6	-27.8	27.0	-27.8	2.50	-1.54	169.73
5,520.0	0.92	205.70	5,518.6	-28.1	26.8	-28.1	1.43	1.43	4.44
5,550.0	1.13	204.97	5,548.6	-28.6	26.6	-28.6	0.70	0.70	-2.44
5,580.0	1.29	189.65	5,578.6	-29.2	26.4	-29.2	1.20	0.52	-51.09
5,610.0	0.59	183.91	5,608.6	-29.7	26.3	-29.7	2.36	-2.34	-19.12
5,640.0	0.96	209.17	5,638.6	-30.1	26.2	-30.0	1.65	1.23	84.20
5,670.0	0.95	202.48	5,668.6	-30.5	26.0	-30.5	0.37	-0.01	-22.28
5,700.0	1.25	197.23	5,698.6	-31.1	25.8	-31.0	1.03	0.98	-17.53
5,730.0	1.23	198.78	5,728.6	-31.7	25.6	-31.7	0.13	-0.06	5.17
5,760.0	1.07	193.09	5,758.6	-32.2	25.4	-32.2	0.66	-0.54	-18.95
5,790.0	0.97	202.09	5,788.6	-32.8	25.3	-32.7	0.61	-0.31	30.00
5,820.0	0.96	193.06	5,818.6	-33.2	25.1	-33.2	0.51	-0.04	-30.10
5,850.0	0.96	186.01	5,848.6	-33.7	25.0	-33.7	0.40	0.00	-23.50
5,880.0	0.91	192.10	5,878.6	-34.2	25.0	-34.2	0.38	-0.19	20.30
5,910.0	0.73	200.33	5,908.6	-34.6	24.8	-34.6	0.71	-0.59	27.43
5,940.0	0.65	197.19	5,938.6	-35.0	24.7	-35.0	0.30	-0.27	-10.48
5,970.0	0.77	182.17	5,968.6	-35.3	24.7	-35.3	0.73	0.40	-50.05
6,000.0	0.75	182.01	5,998.6	-35.7	24.7	-35.7	0.04	-0.04	-0.53
6,030.0	0.67	189.33	6,028.6	-36.1	24.6	-36.1	0.42	-0.29	24.39
6,060.0	0.51	183.92	6,058.6	-36.4	24.6	-36.4	0.57	-0.54	-18.02
6,090.0	0.70	182.17	6,088.6	-36.7	24.6	-36.7	0.66	0.65	-5.84
6,120.0	0.87	170.80	6,118.5	-37.1	24.6	-37.1	0.76	0.56	-37.91
6,150.0	0.24	108.28	6,148.5	-37.4	24.7	-37.4	2.62	-2.09	-208.40
6,180.0	0.38	192.47	6,178.5	-37.5	24.7	-37.5	1.42	0.45	280.65
6,210.0	0.37	170.08	6,208.5	-37.7	24.7	-37.7	0.48	-0.03	-74.66
6,240.0	0.38	153.91	6,238.5	-37.9	24.8	-37.8	0.35	0.05	-53.89
6,270.0	0.77	169.45	6,268.5	-38.1	24.9	-38.1	1.39	1.30	51.80
6,300.0	1.10	158.26	6,298.5	-38.6	25.0	-38.6	1.27	1.12	-37.29
6,330.0	0.42	107.03	6,328.5	-38.9	25.2	-38.9	3.01	-2.28	-170.77
6,360.0	0.57	182.55	6,358.5	-39.1	25.3	-39.1	2.06	0.50	251.74

Wolverine Directional, LLC

Survey Report

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Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM.2003.21 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,390.0	0.84	178.72	6,388.5	-39.5	25.3	-39.5	0.92	0.90	-12.77	
6,420.0	0.82	175.61	6,418.5	-39.9	25.3	-39.9	0.16	-0.06	-10.38	
6,450.0	0.91	181.46	6,448.5	-40.4	25.3	-40.3	0.42	0.30	19.49	
6,480.0	1.05	178.98	6,478.5	-40.9	25.3	-40.9	0.48	0.46	-8.25	
6,510.0	0.99	172.85	6,508.5	-41.4	25.4	-41.4	0.42	-0.20	-20.44	
6,540.0	1.04	172.55	6,538.5	-41.9	25.5	-41.9	0.17	0.17	-1.00	
6,570.0	1.16	167.15	6,568.5	-42.5	25.6	-42.5	0.53	0.41	-17.99	
6,600.0	1.10	175.38	6,598.5	-43.1	25.6	-43.1	0.58	-0.21	27.43	
6,630.0	1.15	178.01	6,628.5	-43.7	25.7	-43.6	0.24	0.17	8.77	
6,660.0	1.24	178.63	6,658.5	-44.3	25.7	-44.3	0.32	0.32	2.08	
6,690.0	1.06	176.80	6,688.5	-44.9	25.7	-44.9	0.63	-0.62	-6.12	
6,720.0	1.13	186.28	6,718.5	-45.5	25.7	-45.4	0.65	0.24	31.60	
6,750.0	1.10	179.99	6,748.5	-46.0	25.7	-46.0	0.42	-0.11	-20.97	
Last HAL Survey										
6,776.0	0.80	168.60	6,774.5	-46.5	25.7	-46.5	1.36	-1.15	-43.81	
First MWD Survey										
6,808.0	0.80	349.50	6,806.5	-46.5	25.7	-46.5	5.00	0.00	-559.69	
6,839.0	5.20	351.00	6,837.4	-44.9	25.5	-44.9	14.19	14.19	4.84	
6,868.0	8.60	359.00	6,866.2	-41.4	25.2	-41.4	12.16	11.72	27.59	
6,904.0	10.80	9.80	6,901.7	-35.4	25.7	-35.4	7.91	6.11	30.00	
6,936.0	13.40	11.60	6,933.0	-28.8	27.0	-28.8	8.21	8.13	5.63	
6,968.0	16.90	14.40	6,963.9	-20.7	28.9	-20.6	11.17	10.94	8.75	
6,999.0	21.10	11.40	6,993.2	-10.8	31.1	-10.8	13.91	13.55	-9.68	
7,031.0	25.30	10.20	7,022.6	1.6	33.5	1.6	13.21	13.13	-3.75	
7,063.0	29.30	9.70	7,051.0	16.0	36.0	16.0	12.52	12.50	-1.56	
7,095.0	33.80	9.10	7,078.3	32.5	38.7	32.5	14.10	14.06	-1.88	
7,127.0	38.30	8.10	7,104.1	51.1	41.5	51.2	14.18	14.06	-3.13	
7,159.0	42.90	7.60	7,128.4	71.8	44.4	71.8	14.41	14.38	-1.56	
7,191.0	47.60	6.70	7,150.9	94.3	47.2	94.3	14.82	14.69	-2.81	
7,223.0	50.30	3.50	7,172.0	118.3	49.3	118.4	11.31	8.44	-10.00	
7,255.0	50.90	0.60	7,192.3	143.0	50.2	143.1	7.25	1.88	-9.06	
7,287.0	53.30	358.30	7,211.9	168.3	50.0	168.3	9.40	7.50	-7.19	
7,319.0	56.50	357.60	7,230.3	194.5	49.0	194.5	10.16	10.00	-2.19	
7,351.0	59.60	357.80	7,247.3	221.6	47.9	221.6	9.70	9.69	0.63	
7,382.0	61.90	357.80	7,262.4	248.6	46.9	248.6	7.42	7.42	0.00	
7,414.0	64.30	358.50	7,276.9	277.1	46.0	277.2	7.75	7.50	2.19	
7,446.0	65.80	358.90	7,290.4	306.1	45.3	306.2	4.82	4.69	1.25	
7,477.0	66.30	358.40	7,303.0	334.5	44.6	334.5	2.18	1.61	-1.61	
7,509.0	66.60	358.30	7,315.8	363.8	43.8	363.8	0.98	0.94	-0.31	
7,541.0	69.40	358.80	7,327.7	393.4	43.1	393.5	8.87	8.75	1.56	
7,573.0	72.40	359.10	7,338.2	423.7	42.5	423.7	9.42	9.38	0.94	
7,605.0	74.90	359.00	7,347.2	454.4	42.0	454.4	7.82	7.81	-0.31	
7,636.0	78.40	359.00	7,354.4	484.5	41.5	484.5	11.29	11.29	0.00	
7,668.0	81.50	359.00	7,360.0	516.0	40.9	516.0	9.69	9.69	0.00	
7,700.0	84.20	359.20	7,363.9	547.8	40.4	547.8	8.46	8.44	0.63	
7,732.0	86.90	359.00	7,366.4	579.7	39.9	579.7	8.46	8.44	-0.63	
7,756.0	88.40	358.40	7,367.4	603.6	39.4	603.7	6.73	6.25	-2.50	
7,787.0	89.50	358.40	7,368.0	634.6	38.5	634.6	3.55	3.55	0.00	
7,818.0	89.50	358.50	7,368.2	665.6	37.7	665.6	0.32	0.00	0.32	
7,850.0	90.00	358.50	7,368.4	697.6	36.8	697.6	1.56	1.56	0.00	
7,944.0	89.70	359.70	7,368.6	791.6	35.3	791.6	1.32	-0.32	1.28	
8,039.0	89.70	0.30	7,369.1	886.6	35.3	886.6	0.63	0.00	0.63	
8,133.0	89.80	0.20	7,369.5	980.6	35.8	980.6	0.15	0.11	-0.11	
8,229.0	89.50	0.70	7,370.1	1,076.6	36.5	1,076.6	0.61	-0.31	0.52	

Wolverine Directional, LLC

Survey Report

Company:	RKI Exploration & Production	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-3H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	North Brushy Draw Fed 35-3H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM:2003.21 Single User Db

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,324.0	90.20	0.90	7,370.4	1,171.6	37.8	1,171.6	0.77	0.74	0.21
8,419.0	90.60	1.50	7,369.7	1,266.5	39.8	1,266.6	0.76	0.42	0.63
8,513.0	91.20	0.70	7,368.2	1,360.5	41.6	1,360.5	1.06	0.64	-0.85
8,608.0	90.50	0.30	7,366.8	1,455.5	42.5	1,455.5	0.85	-0.74	-0.42
8,704.0	90.30	0.60	7,366.2	1,551.5	43.2	1,551.5	0.38	-0.21	0.31
8,798.0	90.70	0.40	7,365.3	1,645.5	44.0	1,645.5	0.48	0.43	-0.21
8,894.0	89.80	357.60	7,364.9	1,741.4	42.4	1,741.5	3.06	-0.94	-2.92
8,989.0	89.10	357.60	7,365.8	1,836.4	38.4	1,836.4	0.74	-0.74	0.00
9,085.0	89.60	357.00	7,366.9	1,932.2	33.9	1,932.3	0.81	0.52	-0.63
9,179.0	89.70	357.30	7,367.5	2,026.1	29.2	2,026.1	0.34	0.11	0.32
9,275.0	90.90	358.90	7,367.0	2,122.1	26.0	2,122.1	2.08	1.25	1.67
9,369.0	90.30	359.60	7,366.0	2,216.1	24.8	2,216.1	0.98	-0.64	0.74
9,464.0	90.80	3.00	7,365.1	2,311.0	26.9	2,311.0	3.62	0.53	3.58
9,559.0	90.40	3.20	7,364.1	2,405.9	32.1	2,405.9	0.47	-0.42	0.21
9,653.0	90.10	2.90	7,363.7	2,499.7	37.1	2,499.8	0.45	-0.32	-0.32
9,747.0	89.90	2.30	7,363.7	2,593.6	41.3	2,593.7	0.67	-0.21	-0.64
9,842.0	90.80	2.40	7,363.1	2,688.6	45.2	2,688.6	0.95	0.95	0.11
9,937.0	90.90	0.10	7,361.7	2,783.5	47.3	2,783.5	2.42	0.11	-2.42
10,031.0	90.70	359.70	7,360.4	2,877.5	47.1	2,877.5	0.48	-0.21	-0.43
10,124.0	90.50	357.80	7,359.4	2,970.5	45.1	2,970.5	2.05	-0.22	-2.04
10,218.0	90.50	357.40	7,358.6	3,064.4	41.2	3,064.4	0.43	0.00	-0.43
10,313.0	92.50	359.80	7,356.1	3,159.3	38.9	3,159.3	3.29	2.11	2.53
10,409.0	91.30	359.00	7,352.9	3,255.3	37.8	3,255.3	1.50	-1.25	-0.83
10,504.0	90.70	358.10	7,351.3	3,350.2	35.4	3,350.2	1.14	-0.63	-0.95
10,598.0	87.90	357.60	7,352.4	3,444.1	31.9	3,444.1	3.03	-2.98	-0.53
10,693.0	90.00	357.80	7,354.1	3,539.0	28.1	3,539.0	2.22	2.21	0.21
10,788.0	89.90	357.40	7,354.2	3,633.9	24.1	3,634.0	0.43	-0.11	-0.42
10,882.0	90.20	357.80	7,354.1	3,727.9	20.2	3,727.9	0.53	0.32	0.43
10,977.0	89.80	358.30	7,354.1	3,822.8	17.0	3,822.8	0.67	-0.42	0.53
11,069.0	92.00	358.90	7,352.7	3,914.8	14.7	3,914.8	2.48	2.39	0.65
11,163.0	91.70	358.50	7,349.7	4,008.7	12.6	4,008.7	0.53	-0.32	-0.43
11,256.0	91.10	359.10	7,347.4	4,101.6	10.6	4,101.6	0.91	-0.65	0.65
11,353.0	90.60	359.50	7,346.0	4,198.6	9.4	4,198.6	0.66	-0.52	0.41
11,448.0	90.00	0.40	7,345.5	4,293.6	9.4	4,293.6	1.14	-0.63	0.95
11,543.0	90.20	1.00	7,345.3	4,388.6	10.5	4,388.6	0.67	0.21	0.63
11,637.0	91.90	1.80	7,343.6	4,482.6	12.8	4,482.6	2.00	1.81	0.85
11,731.0	89.60	0.30	7,342.3	4,576.5	14.5	4,576.5	2.92	-2.45	-1.60
11,749.0	88.80	359.90	7,342.6	4,594.5	14.6	4,594.5	4.97	-4.44	-2.22
Last MWD Survey									
11,800.0	88.80	359.90	7,343.7	4,645.5	14.5	4,645.5	0.00	0.00	0.00
Proj to TD - NBD Fed 35-3H PBHL									

Wolverine Directional, LLC

Survey Report

Company:	RKI Exploration & Production	Local Co-ordinate Reference:	Well North Brushy Draw Fed 35-3H
Project:	Eddy County (NM83E)	TVD Reference:	WELL @ 0.0ft (Original Well Elev)
Site:	Sec 35-T25S-R29E	MD Reference:	WELL @ 0.0ft (Original Well Elev)
Well:	North Brushy Draw Fed 35-3H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 2003.21 Single User Db

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.0	100.0	0.1	0.2	First GYRO Survey
5,300.0	5,298.6	-25.1	26.9	Last GYRO Survey
5,310.0	5,308.6	-25.2	27.0	First HAL Survey
6,750.0	6,748.5	-46.0	25.7	Last HAL Survey
6,776.0	6,774.5	-46.5	25.7	First MWD Survey
11,749.0	7,342.6	4,594.5	14.6	Last MWD Survey
11,800.0	7,343.7	4,645.5	14.5	Proj to TD

Checked By: _____	Approved By: _____	Date: _____
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30-015-40185

Casing Cementing

PAR FIVE ENERGY SERVICES LLC

Company: RKI

Well Name: North Brushy Draw Federal 35 #3H

Field:

County: Eddy

State: New Mexico

Date: 8-1-2013

Well Location:

API Number:

Proposal Code: 1

Contact: Mr. Joel Acosta

Made By: Chris S. deLeon

Service from District: Artesia, New Mexico

District Phone: 575-748-8610 Ext. 2920

Objective: Cement production casing per co-rep.

Par-Five Energy Services, LLC

Disclaimer Notice

This is a good faith estimate based significantly upon information provided by the client and, from that information, assumptions about the well, reservoir and treatment. The estimate was then prepared with Par-Five's proprietary computer modeling using that information. Unknown, undisclosed, and/or unusual conditions in or of the well may cause Par-Five's final bill to vary substantially from this estimate and, if this estimate is exceeded, the client agrees to be fully and totally responsible for Par-Five's final bill based upon the actual work performed regardless of any variation from this estimate. No warranty is given by and Par-Five assumes no liability for advice or recommendations made concerning the use of any product or service. The quality of input data, and hence results, may be improved through the use of certain tests and procedures which Par-Five can assist in selecting if you so request. Freedoms from infringement of patents of Par-Five or others is not to be inferred nor are any such rights granted unless expressly agreed to in a separate writing executed by Par-Five.

PAR FIVE

ENERGY SERVICES LLC

Service Order for Job: J00003211

Call Out Sheet Number: CALL00003429

Date of Job: 01-Aug-2013
 District: Artesia
 Time Well Ready: 1:30 pm
 Ready to Pump: 1:30 pm
 Customer: RKL Exploration & Production LI
 DV Tool: 5500
 Well TVD: 6946
 Job Stage Number: 2
 Treat Down: Casing
 Head & Manifold: 5 1/2 Longstring Production
 Hole Size: 8 3/4
 Well MD: 11778
 Well TVD: 6946
 BHST:
 BHP:
 BHCT:

New Well: New Well
 Well #: North Brushy Draw Federal
 County: Eddy
 State: New Mexico
 Legal Location: 99-999-999
 Field:
 Description:
 API#:
 Salesman: Chris DeLeon
 Contact Person/Companyman: Mr. Joel Acosta
 Contact Number: 1-405-441-4393
 Email:
 Rig Contractor: Pioneer
 Rig Number: 14
 Rig Phone:

Max Allowed Pressure:

Max Allowed Ann Pressure:

Casing / Tubing

String Type	Depth	Size	Weight	Grade	Thread
Casing	11778	5-1/2	17	HCP110	8rd

Job Type	Casing	Service Supervisor:	Granados Anthony
Sks/Gals.	Cement Type/Additives	Tractor	Trailer
20.00 Barrel	PF827 Wash PF100		
393.00 Sack	Class C, per cu. ft. (94lb/cu ft)		
117.00 Sack	PF132 LITEPOZ, per cu. ft. (79lb/cu ft)		
1,065.00 Sack	PF49 TXI Lightweight (75lb/cu ft)		
1,405.00 Pound	PF-044 Granulated Salt, per lb (70lb/cu ft)		
1,784.00 Pound	PF20 Bentonite Extender, per lb (60lb/cu ft)		
615.00 Pound	PF42 KOL-SEAL LCA, per lb (50lb/cu ft)		
19,350.00 Pound	PF151 Calcium Carbonate, per lb (63lb/cu ft)		
77.00 Pound	PF001 Calcium Chloride, per lb (50lb/cu ft)		
477.00 Pound	PF13 Retarder, per lb		
560.00 Pound	PF46 Antifoam Agent, per lb		
129.00 Pound	PF153 Antisettling Agent, per lb		
68.00 Pound	PF29 Cellophane Flakes, per lb		
452.00 Pound	PF606 Gel Suppressing Agent, per lb		

PAR FIVE

ENERGY SERVICES LLC

Cement Recipe

1st Stage:

20 Bbls PF827 (200# SAPP + 5 gal Plexaid)
 205 Sks PVL + .5% PF1 + .3% PF79 + .4% PF13 + .3 pps PF42 + .125 pps PF29 + .4 pps PF46
 11.5# Yield 2.08 H2O 11.983

PF49: 75#
 PF1: 375#
 PF79: 225#
 PF13: 3#
 PF42: 3#
 PF29: 125#
 PF46: 4#

860 Sks PVL + 30% PF151 + 5% PF174 + 7% PF606 + 5% PF13 + 2% PF153 + 4 pps PF46
 13.0# Yield 1.87 H2O 9.517

PF49: 75#
 PF151: 22.5#
 PF174: 3.75#
 PF606: 525#
 PF13: 375#
 PF153: 15#
 PF79: 15#
 PF46: 4#

2nd Stage:

335 Sks 35/65 Poz/C + 5% (BWOW) PF44 + 6% PF20 + 2% PF13 + .125 pps PF29 + .4 pps PF46
 12.9# Yield 1.89 H2O 10.058

PF903: 61.1#
 PF132: 27.65#
 PF20: 5.325#
 PF13: 178#
 PF29: 125#
 PF46: 4#
 PF44: 4.192#

175 Sks C + 2% PF13
 14.8# Yield 1.33 H2O 6.32

PF903: 94#
 PF13: 188#

5 1/2 Head ETC.
 300# Sugar

Description	Quantity	Unit Price	Extended Price	Disc %	Net Amount
DOT Conformance Charge, per unit*	4.00	\$325.00	\$1,300.00	50%	\$650.00
Fuel Used On Location*	4.00	\$425.00	\$1,700.00	50%	\$850.00
Mileage Charge, all other equipment, per mile*	540.00	\$6.00	\$3,240.00	50%	\$1,620.00
Cars, pickups, monitoring vehicles round trip*	360.00	\$4.00	\$1,440.00	50%	\$720.00
PF-999 - Sugar*	300.00	\$4.00	\$1,200.00	50%	\$600.00
Casing - 11001 - 12000*	1.00	\$10,700.00	\$10,700.00	50%	\$5,350.00
Cement Field Bin Set Up Charge*	1.00	\$750.00	\$750.00	50%	\$375.00
Bulk Unit, per hr on location*	4.00	\$150.00	\$600.00	50%	\$300.00
Add stages - continuous multi stage cementing device*	1.00	\$3,000.00	\$3,000.00	50%	\$1,500.00
Low Pressure Cement Plug Container*	1.00	\$800.00	\$800.00	50%	\$400.00
Circulation Equipment before job per job*	1.00	\$1,200.00	\$1,200.00	50%	\$600.00



ENERGY SERVICES LLC

Description	Quantity	Unit Price	Extended Price	Disc %	Net Amount
Delivery Charge - Ton mileage, per ton mile*	4,730.00	\$1.75	\$8,277.50	50%	\$4,138.75
Service Charges - Land jobs*	1,575.00	\$2.00	\$3,150.00	50%	\$1,575.00
Laboratory Testing QA/QC Per Job*	1.00	\$500.00	\$500.00	50%	\$250.00
Data Acquisition Recorder*	1.00	\$800.00	\$800.00	50%	\$400.00
PF174 Expanding Cement LT, per lb	3,225.00	\$4.05	\$13,061.25	50%	\$6,530.62
Class C, per cu. ft. (94lb/cu.ft)	393.00	\$29.50	\$11,593.50	50%	\$5,796.75
PF132 LITEPOZ, per cu. ft. (79lb/cu.ft)	117.00	\$12.50	\$1,462.50	50%	\$731.25
PF49 TXI Lightweight (75lb/cu.ft)	1,065.00	\$37.50	\$39,937.50	50%	\$19,968.75
PF20 Bentonite Extender, per lb (60lb/cu.ft)	1,784.00	\$0.48	\$856.32	50%	\$428.16
PF044 Granulated Salt, per lb (70lb/cu.ft)	1,405.00	\$0.48	\$674.40	50%	\$337.20
PF001 Calcium Chloride, per lb (50lb/cu.ft)	77.00	\$1.20	\$92.40	50%	\$46.20
PF42 KOL-SEAL LCA, per lb (50lb/cu.ft)	615.00	\$1.14	\$701.10	50%	\$350.55
PF151 Calcium Carbonate, per lb (63lb/cu.ft)	19,350.00	\$0.70	\$13,545.00	50%	\$6,772.50
PF13 Retarder, per lb	477.00	\$4.75	\$2,265.75	50%	\$1,132.87
PF46 Antifoam Agent, per lb	560.00	\$4.50	\$2,520.00	50%	\$1,260.00
PF153 Antisettling Agent, per lb	129.00	\$21.00	\$2,709.00	50%	\$1,354.50
PF29 Cellophane Flakes, per lb	68.00	\$5.25	\$357.00	50%	\$178.50
PF606 Gel Suppressing Agent, per lb	452.00	\$24.25	\$10,961.00	50%	\$5,480.50
PF827 Wash PF100	20.00	\$54.00	\$1,080.00	50%	\$540.00
Job Total:					\$70,237.11

PAR FIVE
ENERGY SERVICES LLC

Service Instructions

1st Stage:

20 Bbls PF827 (200# SAPP + 5 gal Plexaid)
205 Sks PVL + 5% PF1 + 3% PF79 + 4% PF13 + 3 pps PF42 +
.125 pps PF29 + 4 pps PF46
11.5# Yield 2.08 H2O 11.983

PF49: 75#
PF1: 375#
PF79: 225#
PF13: 3#
PF42: 3#
PF29: 125#
PF46: 4#

860 Sks PVL + 30% PF151 + 5% PF174 + .7% PF606 + 5% PF13 +
.2% PF153 + 4 pps PF46
13.0# Yield 1.87 H2O 9.517

PF49: 75#
PF151: 22.5#
PF174: 3.75#
PF606: 525#
PF13: 375#
PF153: 15#
PF79: 15#
PF46: 4#

2nd Stage:

335 Sks 35/65 Poz/C + 5% (BWOW) PF44 + 6% PF20 + 2% PF13
+ .125 pps PF29 + 4 pps PF46
12.9# Yield 1.89 H2O 10.058

PF903: 61.1#
PF132: 27.65#
PF20: 5.325#
PF13: 178#
PF29: 125#
PF46: 4#
PF44: 4.192#

175 Sks C + 2% PF13
14.8# Yield 1.33 H2O 6.32

PF903: 94#
PF13: 188#

5 1/2 Head ETC
300# Sugar

Directions

US285 South of Malaga to MM4 turn Left and follow rig signs

ART

11279 Lovington Hwy
Artesia, NM 88210

Tel. (575) 748-1288 Fax (575) 748-6898

Test Date: August 1, 2013

Client:	RKI Exploration & Production
Well Name:	North Brushy Draw Fed 35
Field:	
County:	
State:	NM
Location/Rig:	Pioneer #14
Job Type:	5/1/2 2 Stage
String Type:	
Stage Number:	1st Stage
String:	Production
Blend Type:	Pilot

Deviation:	Dev
Hole Size:	8.75
Treat Down:	11778
Stage Tool Down:	5500
Max Allowed Pressure:	3000
Yard Time:	YT
Leave Time:	LT
Location Time:	Loc
Ready To Pump:	Ready
Depth:	11778
Size:	5.5

Weight:	17
Grade:	Grade:
Thread:	Thread:
Client Name:	Client Name:
Voice:	Voice:
Fax:	Fax:
Email:	cdeleon@par-five.com
Title:	Title:
Company:	Par-Five Energy Services
Sales By:	Sales:

1st Stage								Tail							
Density	11.50	Yield	2.08	MW	11.983	TF	15.597	Density	13.00	Yield	1.87	MW	9.517	TF	14.006
MD:	11778 ft.	TVD:	6946 ft.	BHST:	108°F	BHCT:	90°F	MD:	11778 ft.	TVD:	6946 ft.	BHST:	140	BHCT:	90°F
Number of Sacks:		205						Number of Sacks:		860					
11.50 PPG, PVL 0.50% PF001, 0.30% PF079, 0.40% PF013, 3.00 lb/sk PF042, 0.125 lb/sk PF029, 0.40 lb/sk PF046.								13.00 PPG, PVL 30.00% PF151, 5.00% PF174, 0.70% PF606A, 0.50% PF013, 0.20% PF153, 0.40 lb/sk PF046.							
Material	Composition		lbs		gals			Material	Composition		lbs		gals		
Cmt	75.00		15,375.00					Cmt	75.00		64,500.00				
Poz	0		0.00					Poz	0		0.00				
PF001	0.375		76.875		0.000			PF151	22.500		19350.000		0.000		
PF079	0.225		46.125		0.000			PF174	3.750		3225.000		0.000		
PF013	0.300		61.500		0.000			PF606A	0.525		451.500		0.000		
PF042	3.000		615.000		0.000			PF013	0.375		322.500		0.000		
PF029	0.125		25.625		0.000			PF153	0.150		129.000		0.000		
PF046	0.400		82.000		0.000			PF046	0.400		344.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
KCL	0.000		0.000		0.000			KCL	0.000		0.000		0.000		
PF044	0.000		0.000		0.000			PF044	0.000		0.000		0.000		
Totals	Dry		16,282.125		Liq 0			Totals	Dry		88,322.000		Liq 0		
Directions								Notes							
This is a Test for Directions								This is a Note Test							

Client: RKI Exploration & Productio
Well Name: North Brushy Draw Fed 35
Field:
County:
State: NM
Location/Rig: Pioneer #14
Job Type: 5 1/2-2 Stage
String Type:
Stage Number: 2nd Stage
String: Production
Blend Type: Pilot

Deviation: Dev
Hole Size: 8.75
Treat Down: 11778
Stage Tool Down: 5500
Max Allowed Pressure: 3000
Yard Time: YT
Leave Time: LT
Location Time: Loc
Ready To Pump: Ready
Depth: 11778
Size: 5.5

Weight: 17
Grade: Grade
Thread: Thread
Client Name: Client Name
Voice: Voice
Fax: Fax
Email: cdeleon@par-five.com
Title: Title
Company: Par-Five Energy Services
Sales By: Sales

2nd Stage								Tail							
Density	12.90	Yield	1.89	MW	10.058	TF	14.175	Density	14.80	Yield	1.33	MW	6.320	TF	9.926
MD:	11778 ft	TVD:	6946 ft	BHST:	120°F	BHCT:	95°F	MD:	11778 ft	TVD:	6946 ft	BHST:	120	BHCT:	95°F
Number of Sacks:		335						Number of Sacks:		175					
12.90 PPG, 35/65 Poz, 5.0% PF044, BWOW 6.00% PF020, 0.20% PF013, 0.125 lb/sk PF029, 0.40 lb/sk PF046.								14.80 PPG, C, 0.20% PF013.							
Material	Composition		lbs		gals			Material	Composition		lbs		gals		
Cmt	61.10		20,468.50					Cmt	94.00		16,450.00				
Poz	27.65		9,262.75					Poz	0		0.00				
PF020	5.325		1,783.875		0.000			PF013	0.188		32.900		0.000		
PF013	0.178		59.463		0.000			0	0.000		0.000		0.000		
PF029	0.125		41.875		0.000			0	0.000		0.000		0.000		
PF046	0.400		134.000		0.000			0	0.000		0.000		0.000		
	0.000		0.000		0.000			0	0.000		0.000		0.000		
	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
0	0.000		0.000		0.000			0	0.000		0.000		0.000		
KCl	0.000		0.000		0.000			KCl	0.000		0.000		0.000		
PF044	4.194		1405.044					PF044	0.000		0.000				
Totals	Dry		33,155.506		Liq		0	Totals	Dry		16,482.900		Liq		0
Directions								Notes							

Directions

This is a Test for Directions:

Notes

This is a Note Test

PAR FIVE

ENERGY SERVICES LLC

Cement volumes were calculated using 28% excess over open hole volume or by using recommended excess over caliper log.

1st Stage:

20 Bbls PF827 Mudwash

205 Sks PVL + .25% PF1 + .3% PF79 + .4% PF13 + 3 pps PF42 + .125 pps PF29 + .4 pps PF46

Density 11.5 Yield 2.08 H2O 11.944

860 Sks PVL + 30% PF151 + 5% PF174 + 0.7% PF606 + 0.2% PF153 + 0.4 pps PF46 + 0.5% PF13

Density 13.0 Yield 1.87 H2O 9.517

2nd Stage:

335 Sks 35/65 Poz/C + 5% PF44 (BWOW) + 6% PF20 + 0.125 pps PF29 + 0.4 pps PF46 + 0.2% PF13

Density 12.9 Yield 1.89 H2O 10.058

175 Sks C + .2% PF13

Density 14.8 Yield 1.33 H2O 6.32