

30-015-41547

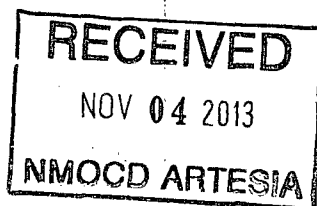


SM Energy

Eddy County, NM (NAD 83)

Sec 36, T19S, R29E

Parkway 36 #6H



Original Wellbore

Design: Original Wellbore

Standard Survey Report

11 September, 2013



Company:	SM Energy	Local Co-ordinate Reference:	Well Parkway 36 #6H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	WELL @ 3349.0usft (Original Well Elev)
Site:	Sec 36, T19S, R29E	MD Reference:	WELL @ 3349.0usft (Original Well Elev)
Well:	Parkway 36 #6H	North Reference:	Grid
Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	Database:	EDM 5000.1 Single User Db

Project	Eddy County, NM (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 36, T19S, R29E		
Site Position:		Northing:	0.00 usft
From:	Map	Easting:	0.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	30° 59' 18.404 N
		Longitude:	106° 3' 38.987 W
		Grid Convergence:	-0.89 °

Well	Parkway 36 #6H		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,349.0 usft
		Latitude:	32° 36' 57.744 N
		Longitude:	104° 1' 15.237 W
		Ground Level:	3,331.0 usft

Wellbore	Original Wellbore		
Magnetics	Model Name	Sample Date	Declination
			(°)
			Dip Angle
			(°)
			Field Strength
			(nT)
	IGRF2010	7/2/2013	7.57
			60.42
			48,599

Design	Original Wellbore		
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
			(°)
			268.85

Survey Program	Date 9/11/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
140.0	3,419.0	Teledrift Surveys (Original Wellbore)	MWD
3,553.0	11,802.0	MWD Surveys (Original Wellbore)	MWD
			Description
			MWD - Standard
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
140.0	0.90	173.00	140.0	-1.1	0.1	-0.1	0.64	0.64	0.00
First Teledrift Survey									
355.0	0.90	312.70	355.0	-1.6	-0.9	0.9	0.79	0.00	64.98
542.0	0.90	291.00	542.0	-0.1	-3.4	3.4	0.18	0.00	-11.60
733.0	0.50	315.00	732.9	1.0	-5.3	5.3	0.26	-0.21	12.57
924.0	0.80	33.70	923.9	2.7	-5.2	5.1	0.45	0.16	41.20
1,040.0	1.50	49.70	1,039.9	4.4	-3.6	3.5	0.66	0.60	13.79
1,135.0	2.10	46.70	1,134.9	6.4	-1.4	1.2	0.64	0.63	-3.16
1,231.0	1.60	58.70	1,230.8	8.3	1.1	-1.2	0.66	-0.52	12.50

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Design:	Original Wellbore	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)
1,326.0	1.30	56.70	1,325.8	9.6	3.1	-3.3	0.32	-0.32	-2.11
1,558.0	1.50	126.70	1,557.7	9.2	7.7	-7.9	0.70	0.09	30.17
1,606.0	1.70	130.00	1,605.7	8.4	8.8	-8.9	0.46	0.42	6.88
1,752.0	1.90	144.70	1,751.6	5.0	11.8	-11.9	0.34	0.14	10.07
1,893.0	2.20	136.70	1,892.6	1.1	15.0	-15.1	0.29	0.21	-5.67
1,988.0	2.30	145.70	1,987.5	-1.8	17.4	-17.3	0.39	0.11	9.47
2,084.0	2.10	148.70	2,083.4	-4.9	19.4	-19.3	0.24	-0.21	3.13
2,178.0	2.00	148.70	2,177.3	-7.8	21.1	-20.9	0.11	-0.11	0.00
2,275.0	1.60	150.70	2,274.3	-10.4	22.7	-22.4	0.42	-0.41	2.06
2,370.0	1.80	156.70	2,369.3	-12.9	23.9	-23.6	0.28	0.21	6.32
2,651.0	2.30	203.00	2,650.1	-22.2	23.4	-23.0	0.60	0.18	16.48
2,746.0	2.40	217.00	2,745.0	-25.5	21.5	-21.0	0.61	0.11	14.74
2,937.0	1.90	197.00	2,935.9	-31.7	18.2	-17.5	0.47	-0.26	-10.47
3,033.0	1.90	198.00	3,031.8	-34.8	17.2	-16.5	0.03	0.00	1.04
3,133.0	1.90	207.70	3,131.8	-37.8	15.9	-15.2	0.32	0.00	9.70
3,229.0	1.70	101.70	3,227.7	-39.5	16.6	-15.8	3.00	-0.21	-110.42
3,324.0	1.60	193.70	3,322.7	-41.1	17.6	-16.8	2.50	-0.11	96.84
3,419.0	1.60	184.70	3,417.7	-43.7	17.2	-16.3	0.26	0.00	-9.47
Last Teledrift Survey									
3,553.0	1.60	184.80	3,551.6	-47.4	16.9	-16.0	0.00	0.00	0.07
First MWD Survey									
3,649.0	0.70	71.30	3,647.6	-48.6	17.4	-16.4	2.07	-0.94	-118.23
3,743.0	0.90	61.80	3,741.6	-48.0	18.5	-17.6	0.25	0.21	-10.11
3,839.0	1.80	327.70	3,837.6	-46.4	18.4	-17.5	2.16	0.94	-98.02
3,934.0	2.20	328.00	3,932.5	-43.6	16.6	-15.8	0.42	0.42	0.32
4,030.0	2.10	328.10	4,028.5	-40.5	14.7	-13.9	0.10	-0.10	0.10
4,125.0	1.90	325.70	4,123.4	-37.8	12.9	-12.2	0.23	-0.21	-2.53
4,221.0	1.90	329.80	4,219.4	-35.1	11.2	-10.5	0.14	0.00	4.27
4,316.0	1.90	327.00	4,314.3	-32.4	9.6	-8.9	0.10	0.00	-2.95
4,412.0	1.90	318.40	4,410.3	-29.9	7.7	-7.1	0.30	0.00	-8.96
4,507.0	1.90	319.10	4,505.2	-27.5	5.6	-5.0	0.02	0.00	0.74
4,603.0	1.80	317.50	4,601.1	-25.2	3.5	-3.0	0.12	-0.10	-1.67
4,698.0	1.90	314.70	4,696.1	-23.0	1.4	-0.9	0.14	0.11	-2.95
4,793.0	1.60	356.30	4,791.1	-20.5	0.2	0.2	1.34	-0.32	43.79
4,889.0	1.60	1.10	4,887.0	-17.9	0.1	0.2	0.14	0.00	5.00
4,984.0	1.70	355.70	4,982.0	-15.1	0.0	0.3	0.19	0.11	-5.68
5,080.0	1.60	355.80	5,077.9	-12.4	-0.2	0.4	0.10	-0.10	0.10
5,174.0	1.40	355.50	5,171.9	-9.9	-0.3	0.5	0.21	-0.21	-0.32
5,270.0	1.60	353.30	5,267.9	-7.4	-0.6	0.7	0.22	0.21	-2.29
5,365.0	1.50	349.90	5,362.8	-4.9	-1.0	1.1	0.14	-0.11	-3.58
5,461.0	1.20	339.10	5,458.8	-2.7	-1.5	1.6	0.41	-0.31	-11.25
5,556.0	1.50	330.70	5,553.8	-0.7	-2.5	2.5	0.38	0.32	-8.84
5,651.0	1.50	313.30	5,648.8	1.3	-4.0	4.0	0.48	0.00	-18.32

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Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	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)
5,747.0	1.80	313.30	5,744.7	3.2	-6.0	6.0	0.31	0.31	0.00
5,842.0	2.10	304.70	5,839.7	5.2	-8.6	8.4	0.44	0.32	-9.05
5,937.0	1.10	287.80	5,934.6	6.4	-10.9	10.7	1.15	-1.05	-17.79
6,032.0	1.00	262.50	6,029.6	6.6	-12.5	12.4	0.49	-0.11	-26.63
6,128.0	0.30	31.70	6,125.6	6.7	-13.2	13.1	1.26	-0.73	134.58
6,223.0	0.10	52.10	6,220.6	7.0	-13.0	12.9	0.22	-0.21	21.47
6,319.0	0.30	277.00	6,316.6	7.1	-13.2	13.1	0.39	0.21	-140.73
6,414.0	0.50	254.10	6,411.6	7.0	-13.9	13.7	0.27	0.21	-24.11
6,510.0	1.00	247.40	6,507.6	6.5	-15.0	14.9	0.53	0.52	-6.98
6,605.0	1.00	217.40	6,602.6	5.6	-16.3	16.2	0.54	0.00	-31.58
6,701.0	1.00	198.40	6,698.6	4.1	-17.1	17.0	0.34	0.00	-19.79
6,796.0	0.70	197.50	6,793.6	2.8	-17.5	17.5	0.32	-0.32	-0.95
6,843.0	0.90	212.00	6,840.5	2.2	-17.8	17.8	0.60	0.43	30.85
6,862.0	0.80	215.80	6,859.5	1.9	-18.0	17.9	0.60	-0.53	20.00
6,893.0	0.90	285.50	6,890.5	1.8	-18.3	18.3	3.14	0.32	224.84
6,925.0	3.60	283.60	6,922.5	2.1	-19.5	19.5	8.44	8.44	-5.94
6,957.0	6.00	290.20	6,954.4	2.9	-22.1	22.0	7.68	7.50	20.63
6,989.0	8.70	285.30	6,986.1	4.2	-26.0	25.9	8.65	8.44	-15.31
7,021.0	11.70	279.40	7,017.6	5.3	-31.5	31.4	9.92	9.38	-18.44
7,053.0	15.70	276.00	7,048.7	6.3	-39.0	38.9	12.75	12.50	-10.63
7,084.0	18.40	274.20	7,078.3	7.1	-48.1	47.9	8.87	8.71	-5.81
7,116.0	22.50	270.50	7,108.3	7.5	-59.3	59.1	13.43	12.81	-11.56
7,148.0	26.80	267.20	7,137.4	7.2	-72.6	72.4	14.10	13.44	-10.31
7,180.0	29.80	266.20	7,165.6	6.4	-87.7	87.6	9.49	9.38	-3.13
7,212.0	32.20	266.10	7,193.0	5.2	-104.2	104.1	7.50	7.50	-0.31
7,244.0	34.50	265.60	7,219.7	4.0	-121.7	121.6	7.24	7.19	-1.56
7,275.0	36.70	265.40	7,244.9	2.6	-139.7	139.6	7.11	7.10	-0.65
7,307.0	38.90	265.50	7,270.2	1.0	-159.3	159.2	6.88	6.88	0.31
7,339.0	41.00	265.40	7,294.8	-0.6	-179.7	179.7	6.57	6.56	-0.31
7,371.0	44.00	266.30	7,318.3	-2.2	-201.3	201.3	9.57	9.38	2.81
7,403.0	47.30	267.40	7,340.7	-3.4	-224.2	224.2	10.60	10.31	3.44
7,434.0	50.60	267.60	7,361.1	-4.5	-247.5	247.5	10.66	10.65	0.65
7,466.0	54.30	268.60	7,380.6	-5.3	-272.9	272.9	11.82	11.56	3.13
7,498.0	58.50	268.30	7,398.3	-6.0	-299.5	299.6	13.15	13.13	-0.94
7,530.0	61.50	267.60	7,414.3	-7.0	-327.2	327.3	9.56	9.38	-2.19
7,562.0	64.10	267.60	7,428.9	-8.2	-355.6	355.7	8.13	8.13	0.00
7,593.0	66.70	267.50	7,441.8	-9.4	-383.8	383.9	8.39	8.39	-0.32
7,625.0	69.30	267.40	7,453.8	-10.7	-413.4	413.5	8.13	8.13	-0.31
7,657.0	70.30	267.10	7,464.8	-12.2	-443.4	443.6	3.25	3.13	-0.94
7,689.0	72.40	266.60	7,475.1	-13.8	-473.7	473.9	6.73	6.56	-1.56
7,720.0	75.20	266.40	7,483.7	-15.7	-503.4	503.6	9.05	9.03	-0.65
7,752.0	78.90	265.90	7,490.9	-17.8	-534.5	534.8	11.66	11.56	-1.56
7,784.0	82.00	265.40	7,496.2	-20.1	-566.0	566.3	9.81	9.69	-1.56
7,816.0	85.10	265.70	7,499.8	-22.6	-597.7	598.0	9.73	9.69	0.94

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7,833.0	87.30	266.10	7,500.9	-23.8	-614.6	614.9	13.15	12.94	2.35
7,970.0	91.30	263.90	7,502.6	-35.8	-751.0	751.6	3.33	2.92	-1.61
8,065.0	92.00	265.70	7,499.8	-44.4	-845.6	846.3	2.03	0.74	1.89
8,160.0	91.70	267.30	7,496.8	-50.2	-940.3	941.2	1.71	-0.32	1.68
8,255.0	92.40	269.60	7,493.4	-52.7	-1,035.2	1,036.1	2.53	0.74	2.42
8,349.0	92.90	270.10	7,489.0	-53.0	-1,129.1	1,130.0	0.75	0.53	0.53
8,444.0	93.80	270.40	7,483.5	-52.6	-1,224.0	1,224.8	1.00	0.95	0.32
8,539.0	92.90	270.50	7,477.9	-51.8	-1,318.8	1,319.6	0.95	-0.95	0.11
8,634.0	91.70	270.20	7,474.1	-51.2	-1,413.7	1,414.5	1.30	-1.26	-0.32
8,727.0	91.80	270.10	7,471.3	-51.0	-1,506.7	1,507.4	0.15	0.11	-0.11
8,823.0	91.70	270.40	7,468.3	-50.6	-1,602.6	1,603.3	0.33	-0.10	0.31
8,918.0	91.60	270.50	7,465.6	-49.8	-1,697.6	1,698.3	0.15	-0.11	0.11
9,012.0	90.90	270.30	7,463.6	-49.2	-1,791.6	1,792.2	0.77	-0.74	-0.21
9,106.0	92.50	270.90	7,460.8	-48.2	-1,885.5	1,886.1	1.82	1.70	0.64
9,201.0	92.40	271.20	7,456.7	-46.5	-1,980.4	1,981.0	0.33	-0.11	0.32
9,296.0	92.50	271.60	7,452.7	-44.1	-2,075.3	2,075.8	0.43	0.11	0.42
9,390.0	91.90	270.90	7,449.0	-42.1	-2,169.2	2,169.6	0.98	-0.64	-0.74
9,485.0	92.10	270.50	7,445.7	-40.9	-2,264.2	2,264.5	0.47	0.21	-0.42
9,580.0	90.70	268.90	7,443.4	-41.4	-2,359.1	2,359.5	2.24	-1.47	-1.68
9,675.0	92.30	269.80	7,440.9	-42.5	-2,454.1	2,454.4	1.93	1.68	0.95
9,770.0	93.80	270.40	7,435.9	-42.3	-2,548.9	2,549.3	1.70	1.58	0.63
9,864.0	94.10	270.00	7,429.4	-42.0	-2,642.7	2,643.0	0.53	0.32	-0.43
9,959.0	93.50	269.10	7,423.1	-42.8	-2,737.5	2,737.8	1.14	-0.63	-0.95
10,054.0	94.00	269.30	7,416.9	-44.1	-2,832.3	2,832.6	0.57	0.53	0.21
10,148.0	92.70	268.20	7,411.4	-46.1	-2,926.1	2,926.4	1.81	-1.38	-1.17
10,243.0	93.50	268.50	7,406.3	-48.9	-3,020.9	3,021.3	0.90	0.84	0.32
10,338.0	90.20	268.10	7,403.2	-51.7	-3,115.8	3,116.2	3.50	-3.47	-0.42
10,433.0	89.90	266.40	7,403.1	-56.2	-3,210.7	3,211.2	1.82	-0.32	-1.79
10,527.0	90.80	267.10	7,402.5	-61.6	-3,304.5	3,305.1	1.21	0.96	0.74
10,622.0	91.20	267.50	7,400.9	-66.0	-3,399.4	3,400.1	0.60	0.42	0.42
10,717.0	91.80	267.30	7,398.4	-70.3	-3,494.3	3,495.0	0.67	0.63	-0.21
10,812.0	93.60	267.70	7,393.9	-74.5	-3,589.1	3,589.9	1.94	1.89	0.42
10,906.0	91.60	268.40	7,389.6	-77.7	-3,682.9	3,683.8	2.25	-2.13	0.74
11,001.0	91.60	268.10	7,387.0	-80.6	-3,777.9	3,778.7	0.32	0.00	-0.32
11,096.0	90.90	269.10	7,384.9	-82.9	-3,872.8	3,873.7	1.28	-0.74	1.05
11,191.0	89.80	269.00	7,384.3	-84.5	-3,967.8	3,968.7	1.16	-1.16	-0.11
11,286.0	89.60	268.90	7,384.8	-86.2	-4,062.8	4,063.7	0.24	-0.21	-0.11
11,381.0	89.60	268.60	7,385.5	-88.3	-4,157.7	4,158.7	0.32	0.00	-0.32
11,475.0	90.20	268.60	7,385.7	-90.6	-4,251.7	4,252.7	0.64	0.64	0.00
11,570.0	91.10	268.40	7,384.6	-93.1	-4,346.7	4,347.7	0.97	0.95	-0.21
11,664.0	91.50	268.40	7,382.5	-95.7	-4,440.6	4,441.6	0.43	0.43	0.00
11,751.0	92.00	268.30	7,379.8	-98.2	-4,527.5	4,528.6	0.59	0.57	-0.11
Last MWD Survey									

Company:	SM Energy	Local Co-ordinate Reference:	Well Parkway 36 #6H
Project:	Eddy County, NM (NAD 83)	TVD Reference:	WELL @ 3349.0usft (Original Well Elev)
Site:	Sec 36, T19S, R29E	MD Reference:	WELL @ 3349.0usft (Original Well Elev)
Well:	Parkway 36 #6H	North Reference:	Grid
Wellbore:	Original Wellbore	Survey Calculation Method:	Minimum Curvature
Design:	Original Wellbore	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)
11,802.0	92.00	268.30	7,378.0	-99.7	-4,578.5	4,579.6	0.00	0.00	0.00
PTB - TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
140.0	140.0	-1.1	0.1	First Teledrift Survey
3,419.0	3,417.7	-43.7	17.2	Last Teledrift Survey
3,553.0	3,551.6	-47.4	16.9	First MWD Survey
11,751.0	7,379.8	-98.2	-4,527.5	Last MWD Survey
11,802.0	7,378.0	-99.7	-4,578.5	PTB - TD

Checked By: _____	Approved By: _____	Date: _____
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