



Weatherford International Ltd.

WFT Survey Report X&Y's



Weatherford

Company: Occidental Permian Ltd.
Field: Eddy Co, NM (Nad 27)
Site: Seven Rivers 17 Fed 3H
Well: Seven Rivers 17 Fed 3H
Wellpath: 1

Date: 3/7/2014 Time: 12:20:24 Page: 1
Co-ordinate(NE) Reference: Well: Seven Rivers 17 Fed 3H, Grid North
Vertical (TVD) Reference: SITE 3543.3
Section (VS) Reference: Well (0.00N,0.00E,181.65Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: MWD

Start Date: 2/24/2014

Company: Weatherford International Ltd.
Tool: MWD/MWD - Standard

Engineer: Michael Dill
Tied-to: User Defined

Site: Seven Rivers 17 Fed 3H

15- 41062

Site Position: Northing: 574745.90 ft Latitude: 32 34 47.841 N
From: Map Easting: 445000.80 ft Longitude: 104 30 42.790 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3526.80 ft Grid Convergence: -0.10 deg

Well: Seven Rivers 17 Fed 3H

Slot Name:

Well Position: +N-S 0.00 ft Northing: 574745.90 ft Latitude: 32 34 47.841 N
+E-W 0.00 ft Easting: 445000.80 ft Longitude: 104 30 42.790 W
Position Uncertainty: 0.00 ft

Wellpath: 1

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 7.74 deg
Mag Dip Angle: 60.29 deg
+E-W Direction
ft deg
0.00 181.65

Current Datum: SITE Height 3543.30 ft
Magnetic Data: 12/18/2013
Field Strength: 48501 nT
Vertical Section: Depth From (TVD) ft
0.00

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
627.00	0.13	238.29	627.00	0.01	-1.20	0.00	0.03	574745.91	444999.60	TieOn Gyro MS
823.00	0.07	214.41	823.00	-0.21	-1.45	0.04	0.25	574745.69	444999.35	First WFT Svy
1020.00	0.18	107.62	1020.00	-0.40	-1.23	0.11	0.44	574745.50	444999.57	
1200.00	0.20	86.10	1200.00	-0.47	-0.64	0.04	0.48	574745.43	445000.16	
1380.00	0.16	106.45	1379.99	-0.52	-0.09	0.04	0.52	574745.38	445000.71	
1560.00	0.25	100.54	1559.99	-0.66	0.54	0.05	0.64	574745.24	445001.34	
1681.00	0.30	63.59	1680.99	-0.57	1.08	0.15	0.53	574745.33	445001.88	
1703.00	0.28	24.53	1702.99	-0.49	1.15	0.89	0.46	574745.41	445001.95	
1748.00	2.69	185.35	1747.98	-1.44	1.10	6.57	1.41	574744.46	445001.90	
1793.00	6.42	181.77	1792.83	-5.01	0.93	8.31	4.98	574740.89	445001.73	
1838.00	10.55	177.01	1837.32	-11.64	1.06	9.30	11.61	574734.26	445001.86	
1883.00	15.39	173.35	1881.16	-21.69	1.97	10.90	21.63	574724.21	445002.77	
1928.00	18.95	173.78	1924.15	-34.89	3.45	7.92	34.78	574711.01	445004.25	
1972.00	22.19	175.57	1965.34	-50.28	4.87	7.50	50.12	574695.62	445005.67	
2017.00	24.45	176.03	2006.66	-68.05	6.17	5.04	67.84	574677.85	445006.97	
2062.00	27.48	178.72	2047.12	-87.72	7.05	7.22	87.48	574658.18	445007.85	
2107.00	30.89	180.94	2086.40	-109.66	7.09	7.95	109.41	574636.24	445007.89	
2152.00	34.27	181.20	2124.31	-133.88	6.63	7.52	133.64	574612.02	445007.43	
2197.00	37.28	181.62	2160.82	-160.18	5.98	6.71	159.94	574585.72	445006.78	
2242.00	40.75	181.83	2195.78	-188.49	5.13	7.72	188.26	574557.41	445005.93	
2287.00	42.75	181.23	2229.35	-218.44	4.33	4.53	218.23	574527.46	445005.13	
2332.00	44.74	181.75	2261.86	-249.55	3.52	4.49	249.34	574496.35	445004.32	
2377.00	46.69	182.48	2293.28	-281.74	2.33	4.49	281.55	574464.16	445003.13	
2422.00	49.29	182.86	2323.39	-315.13	0.77	5.81	314.98	574430.77	445001.57	
2467.00	52.30	183.34	2351.83	-349.95	-1.12	6.74	349.83	574395.95	444999.68	
2512.00	55.23	182.66	2378.43	-386.19	-3.01	6.62	386.12	574359.71	444997.79	
2557.00	58.86	181.99	2402.90	-423.91	-4.54	8.16	423.87	574321.99	444996.26	
2602.00	62.15	181.74	2425.06	-463.05	-5.82	7.33	463.03	574282.85	444994.98	
2647.00	65.21	181.37	2445.01	-503.37	-6.91	6.84	503.36	574242.53	444993.89	
2692.00	68.32	181.01	2462.76	-544.71	-7.76	6.95	544.70	574201.19	444993.04	



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Well: Seven Rivers 17 Fed 3H
Wellpath: 1

Date: 3/7/2014 Time: 12:20:24 Page: 2
Co-ordinate(NE) Reference: Well: Seven Rivers 17 Fed 3H, Grid North
Vertical (TVD) Reference: SITE 3543.3
Section (Y'S) Reference: Well (0.00N,0.00E,181.65Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
2737.00	71.79	180.81	2478.10	-586.99	-8.44	7.72	586.99	574158.91	444992.36	
2782.00	75.48	180.65	2490.78	-630.16	-8.99	8.21	630.16	574115.74	444991.81	
2827.00	79.13	181.45	2500.67	-674.05	-9.79	8.29	674.05	574071.85	444991.01	
2872.00	82.67	182.38	2507.78	-718.45	-11.28	8.13	718.47	574027.45	444989.52	
2917.00	87.10	182.88	2511.80	-763.21	-13.33	9.91	763.28	573982.69	444987.47	
2962.00	89.84	182.93	2513.00	-808.13	-15.61	6.09	808.24	573937.77	444985.19	
3007.00	90.73	182.87	2512.77	-853.07	-17.89	1.98	853.23	573892.83	444982.91	
3053.00	90.33	182.73	2512.35	-899.01	-20.14	0.92	899.22	573846.89	444980.66	
3098.00	89.81	182.43	2512.29	-943.97	-22.16	1.33	944.22	573801.93	444978.64	
3143.00	90.57	182.40	2512.14	-988.93	-24.06	1.69	989.21	573756.97	444976.74	
3187.00	91.36	182.30	2511.40	-1032.88	-25.86	1.81	1033.20	573713.02	444974.94	
3233.00	92.13	182.18	2510.00	-1078.83	-27.66	1.69	1079.18	573667.07	444973.14	
3277.00	91.56	181.82	2508.58	-1122.78	-29.20	1.53	1123.15	573623.12	444971.60	
3322.00	89.63	182.10	2508.12	-1167.75	-30.73	4.33	1168.15	573578.15	444970.07	
3369.00	90.38	182.07	2508.11	-1214.72	-32.44	1.60	1215.15	573531.18	444968.36	
3414.00	90.66	182.01	2507.70	-1259.69	-34.05	0.64	1260.14	573486.21	444966.75	
3459.00	91.07	182.42	2507.03	-1304.65	-35.79	1.29	1305.14	573441.25	444965.01	
3549.00	90.42	183.40	2505.86	-1394.52	-40.35	1.31	1395.11	573351.38	444960.45	
3639.00	89.58	183.81	2505.86	-1484.34	-46.01	1.04	1485.05	573261.56	444954.79	
3729.00	90.02	184.80	2506.17	-1574.09	-52.77	1.20	1574.95	573171.81	444948.03	
3819.00	89.13	185.09	2506.84	-1663.75	-60.53	1.04	1664.80	573082.15	444940.27	
3909.00	89.06	185.73	2508.26	-1753.34	-69.01	0.72	1754.60	572992.56	444931.79	
3999.00	87.38	183.61	2511.05	-1842.98	-76.33	3.00	1844.42	572902.92	444924.47	
4088.00	86.88	181.61	2515.51	-1931.78	-80.38	2.31	1933.29	572814.12	444920.42	
4178.00	87.53	181.22	2519.90	-2021.64	-82.60	0.84	2023.18	572724.26	444918.20	
4268.00	88.16	181.11	2523.28	-2111.56	-84.43	0.71	2113.12	572634.34	444916.37	
4358.00	89.25	180.68	2525.32	-2201.52	-85.84	1.30	2203.08	572544.38	444914.96	
4448.00	89.62	180.76	2526.21	-2291.51	-86.97	0.42	2293.07	572454.39	444913.83	
4538.00	89.70	180.80	2526.74	-2381.50	-88.19	0.10	2383.05	572364.40	444912.61	
4628.00	89.72	180.86	2527.19	-2471.49	-89.50	0.07	2473.04	572274.41	444911.30	
4718.00	89.84	180.89	2527.54	-2561.48	-90.87	0.14	2563.04	572184.42	444909.93	
4807.00	90.03	180.98	2527.64	-2650.47	-92.32	0.24	2652.03	572095.43	444908.48	
4897.00	90.24	181.07	2527.43	-2740.45	-93.93	0.25	2742.02	572005.45	444906.87	
4987.00	90.21	181.32	2527.08	-2830.43	-95.81	0.28	2832.02	571915.47	444904.99	
5077.00	90.17	181.72	2526.78	-2920.40	-98.20	0.45	2922.02	571825.50	444902.60	
5167.00	89.48	180.89	2527.05	-3010.38	-100.25	1.20	3012.01	571735.52	444900.55	
5258.00	89.55	180.95	2527.82	-3101.36	-101.71	0.10	3103.00	571644.54	444899.09	
5347.00	89.72	181.08	2528.39	-3190.34	-103.28	0.24	3192.00	571555.56	444897.52	
5437.00	89.90	181.55	2528.69	-3280.32	-105.35	0.56	3281.99	571465.58	444895.45	
5527.00	89.95	181.84	2528.81	-3370.28	-108.01	0.33	3371.99	571375.62	444892.79	
5618.00	89.93	182.17	2528.90	-3461.22	-111.20	0.36	3462.99	571284.68	444889.60	
5707.00	90.14	182.32	2528.85	-3550.16	-114.68	0.29	3551.99	571195.74	444886.12	
5797.00	89.51	181.33	2529.12	-3640.11	-117.55	1.30	3641.98	571105.79	444883.25	
5887.00	89.63	181.51	2529.80	-3730.08	-119.78	0.24	3731.98	571015.82	444881.02	
5977.00	88.51	181.17	2531.26	-3820.04	-121.88	1.30	3821.97	570925.86	444878.92	
6067.00	88.79	181.40	2533.38	-3909.99	-123.90	0.40	3911.94	570835.91	444876.90	
6157.00	89.14	181.50	2535.00	-3999.95	-126.18	0.40	4001.92	570745.95	444874.62	
6247.00	89.39	181.84	2536.16	-4089.90	-128.80	0.47	4091.92	570656.00	444872.00	
6337.00	89.53	182.43	2537.01	-4179.84	-132.15	0.67	4181.91	570566.06	444868.65	
6427.00	89.86	182.87	2537.49	-4269.74	-136.31	0.61	4271.89	570476.16	444864.49	
6517.00	90.05	183.16	2537.56	-4359.61	-141.05	0.39	4361.87	570386.29	444859.75	
6607.00	90.33	183.67	2537.26	-4449.45	-146.41	0.65	4451.82	570296.45	444854.39	



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WFT Survey Report X&Y's



Weatherford

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Field: Eddy Co, NM (Nad 27)
Site: Seven Rivers 17 Fed 3H
Well: Seven Rivers 17 Fed 3H
Wellpath: 1

Date: 3/7/2014 Time: 12:20:24 Page: 3
Co-ordinate(NE) Reference: Well: Seven Rivers 17 Fed 3H; Grid North
Vertical (TVD) Reference: SITE 3543.3
Section (VS) Reference: Well (0.00N,0.00E,181.65Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6697.00	90.09	183.87	2536.93	-4539.26	-152.33	0.35	4541.76	570206.64	444848.47	
6739.00	90.19	184.24	2536.83	-4581.15	-155.30	0.91	4583.73	570164.75	444845.50	Last WFT Svy
6795.00	90.19	184.24	2536.64	-4637.00	-159.44	0.00	4639.67	570108.90	444841.36	Proj to Bit

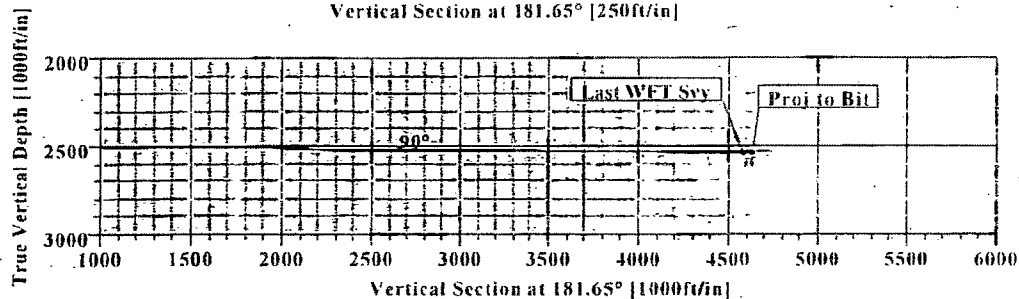
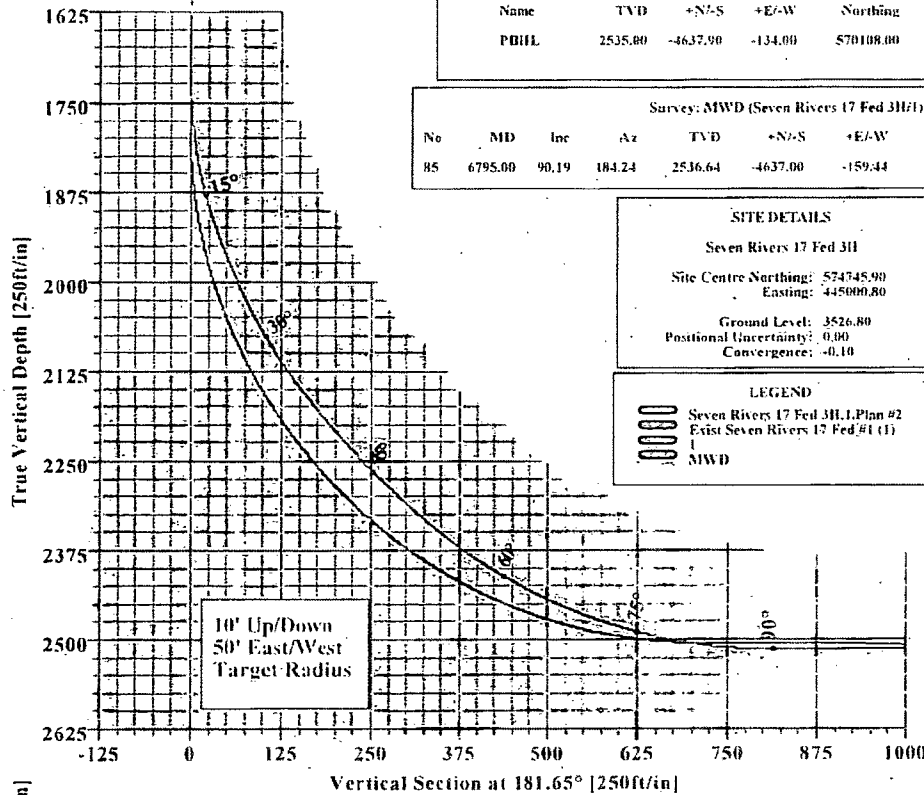
Annotation

MD ft	TVD ft	
627.00	627.00	TieOn Gyro MS
823.00	823.00	First WFT Svy
6739.00	2536.83	Last WFT Svy
6795.00	2536.64	Proj to Bit



Seven Rivers 17 Fed 3H Eddy Co., NM

KB ELEV: 3543.3
GL ELEV: 3526.8



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	0.00	
2	1788.81	0.00	0.00	1788.81	0.00	0.00	0.0000	0.00	0.00	
3	2908.34	89.56	181.65	2504.99	-710.43	-20.53	8.0000	181.65	710.73	
4	6837.56	89.56	181.65	2535.00	-4637.90	-134.00	0.0000	0.00	4639.84	PBHL

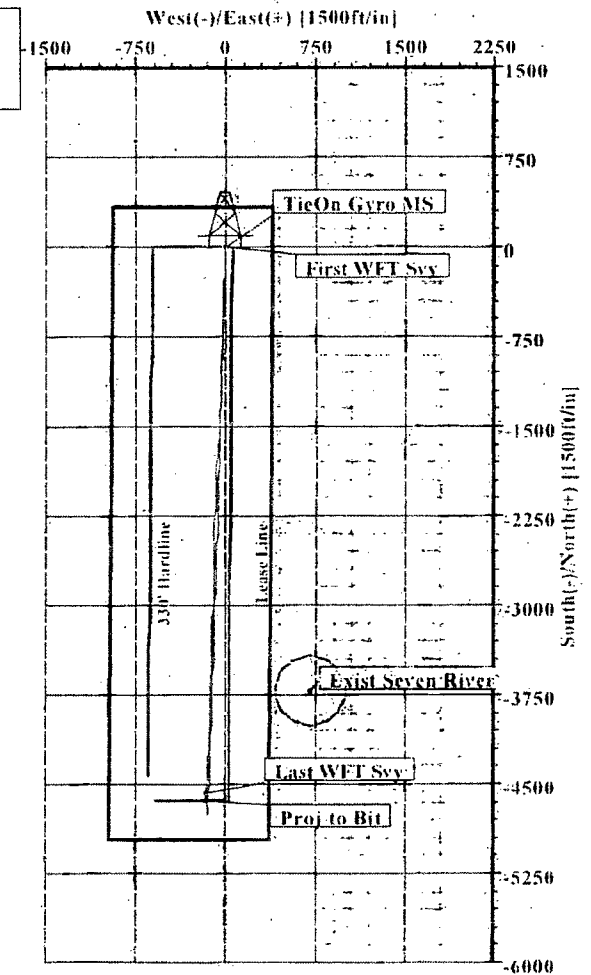
WELL DETAILS						
Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude
Seven Rivers 17 Fed 3H	0.00	0.00	574745.90	445000.80	32°34'47.841N	104°30'42.790W

TARGET DETAILS					
Name	TVD	+N-S	+E-W	Northing	Easting
PBHL	2535.00	-4637.90	-134.00	570108.00	444866.80

Survey: MWD (Seven Rivers 17 Fed 3H/1)									
No	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec
85	6795.00	90.19	184.24	2536.64	-4637.00	-159.44	0.00	0.00	4639.67

SITE DETAILS	
Seven Rivers 17 Fed 3H	
Site Centre Northing:	574745.90
Easting:	445000.80
Ground Level:	3526.80
Positional Uncertainty:	0.00
Convergence:	-0.10

LEGEND	
	Seven Rivers 17 Fed 3H, Plan #2
	Exist Seven Rivers 17 Fed #1 (1)
	MWD





Job Number: SVMO-140216
 Company: OXY USA, Inc.
 Lease/Well: Seven Rivers 17 Fed 3H
 Location: Eddy County, NM
 Rig Name: H&P #344
 RKB: 16.5'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.83°
 Grid: East To Grid North
 File name: S:\2014SU~1\OXY\MO\SEVENR~1\17FED3H.SVY
 Date/Time: 24-Feb-14 / 11:35
 Curve Name: Surface - 627' M.D. (Rate Gyro) (API 30-016-41062)

MS SURVEY

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 627 MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 James Gally
 MS Energy Services
 2/24/14
 Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.42	319.95	100.00	.28	-.24	.28	.37	319.95	.42
200.00	.20	148.73	200.00	.41	-.38	.41	.56	317.23	.62
300.00	.15	305.79	300.00	.34	-.40	.34	.52	310.55	.34
400.00	.14	230.49	400.00	.34	-.60	.34	.69	299.52	.18
500.00	.24	239.38	500.00	.15	-.87	.15	.89	280.00	.10
600.00	.11	258.92	600.00	.03	-1.15	.03	1.15	271.43	.14
Last Survey Depth Recorded									
627.00	.13	238.29	627.00	.01	-1.20	.01	1.20	270.36	.18



Weatherford

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Occidental Permian Ltd.
5 Greenway Plaza Suite 110
Houston Tx 77046

Date: March 07, 2014

Attention: Chan Tysor

Re: Occidental Permian Ltd
Well: Seven Rivers 17 Fed #3H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Sean Gregory MWD Supervisor	3H	823' MD 6739' MD	2-23-2014 3-2-2014	Measurement While Drilling

A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Daniel Rodriguez
MWD Coordinator

On this, the 12th day of March, 2014, before me a notary public, the undersigned officer, personally appeared Daniel Rodriguez, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.

Notary Public

