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30-015-44989

Schlumberger

Oxy Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD Survey Geodetic Report (Def Survey)



Report Date:	September 06, 2018 - 09 04 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	192.890 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0 000 ft, 0 000 ft
Structure / Blot:	Oxy Patton MDP1 17 Federal 171H / Patton MDP1 17 Federal 171H	TVD Reference Datum:	RKB+28.5'
Well:	Patton MDP1 17 Federal 171H	TVD Reference Elevation:	3556 500 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3530 000 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	6.868 °
Survey Name:	Oxy Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD	Total Gravity Field Strength:	998.4295mgn (9.80665 Based)
Survey Date:	August 22, 2018	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	225.119 ° / 6553.876 ft / 8.326 / 0.558	Total Magnetic Field Strength:	47984.724 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.954 °
Location Lat / Long:	N 32° 13' 24.83429" W 103° 48' 12.22166"	Declination Date:	August 22, 2018
Location Grid N/E Y/X:	N 445470 920 NUS, E 7052123 250 NUS	Magnetic Declination Model:	HDGM 2018
CRS Grid Convergence Angle:	0.2828 °	North Reference:	Grid North
Grid Scale Factor:	0.99993985	Grid Convergence Used:	0.2828 °
Version / Patch:	2.10.740.0	Total Corr Mag North->Grid North:	6.9852 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ° °)	Longitude (E/W ° ° °)
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	445470.92	705213.25	N 32 13 24.83	W 103 48 12.22
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	445470.92	705213.25	N 32 13 24.83	W 103 48 12.22
	97.13	0.19	244.18	97.13	0.07	-0.05	-0.11	0.27	445470.87	705213.14	N 32 13 24.83	W 103 48 12.22
	212.80	0.42	255.77	212.80	0.39	-0.24	-0.89	0.20	445470.68	705212.56	N 32 13 24.83	W 103 48 12.23
	394.96	0.02	337.48	394.96	0.68	-0.37	-1.35	0.23	445470.55	705211.90	N 32 13 24.83	W 103 48 12.24
	489.48	0.06	118.30	489.48	0.68	-0.38	-1.31	0.08	445470.54	705211.94	N 32 13 24.83	W 103 48 12.24
Last Gyro	584.12	0.10	115.74	584.12	0.70	-0.44	-1.19	0.04	445470.48	705212.06	N 32 13 24.83	W 103 48 12.24
	717.05	0.10	97.88	717.05	0.71	-0.51	-0.97	0.02	445470.41	705212.28	N 32 13 24.83	W 103 48 12.23
	802.00	0.08	67.80	802.00	0.67	-0.50	-0.85	0.06	445470.42	705212.40	N 32 13 24.83	W 103 48 12.23
	892.00	0.03	351.82	892.00	0.61	-0.45	-0.79	0.09	445470.47	705212.46	N 32 13 24.83	W 103 48 12.23
	1082.00	0.03	70.97	1082.00	0.54	-0.38	-0.75	0.02	445470.54	705212.50	N 32 13 24.83	W 103 48 12.23
	1176.00	0.03	248.49	1176.00	0.54	-0.38	-0.75	0.06	445470.54	705212.50	N 32 13 24.83	W 103 48 12.23
	1270.00	0.03	304.98	1270.00	0.55	-0.38	-0.79	0.03	445470.54	705212.46	N 32 13 24.83	W 103 48 12.23
	1457.00	0.03	83.09	1457.00	0.51	-0.34	-0.78	0.03	445470.56	705212.47	N 32 13 24.83	W 103 48 12.23
	1553.00	0.08	246.78	1553.00	0.54	-0.37	-0.82	0.11	445470.55	705212.43	N 32 13 24.83	W 103 48 12.23
	1647.00	0.08	70.71	1647.00	0.55	-0.37	-0.82	0.17	445470.55	705212.43	N 32 13 24.83	W 103 48 12.23
	1838.00	0.03	255.66	1838.00	0.50	-0.34	-0.74	0.06	445470.58	705212.51	N 32 13 24.83	W 103 48 12.23
	1930.00	0.08	278.93	1930.00	0.52	-0.34	-0.83	0.06	445470.58	705212.42	N 32 13 24.83	W 103 48 12.23
	2025.00	0.08	323.71	2025.00	0.48	-0.28	-0.94	0.07	445470.64	705212.31	N 32 13 24.83	W 103 48 12.23
	2119.00	0.03	51.43	2119.00	0.42	-0.21	-0.96	0.09	445470.71	705212.29	N 32 13 24.83	W 103 48 12.23
	2214.00	0.03	323.42	2214.00	0.38	-0.18	-0.95	0.04	445470.74	705212.30	N 32 13 24.83	W 103 48 12.23
	2308.00	0.03	230.21	2308.00	0.39	-0.17	-0.99	0.05	445470.75	705212.26	N 32 13 24.83	W 103 48 12.23
	2402.00	0.03	53.51	2402.00	0.39	-0.17	-0.99	0.06	445470.75	705212.26	N 32 13 24.83	W 103 48 12.23
	2503.00	0.03	339.43	2503.00	0.35	-0.13	-0.97	0.04	445470.79	705212.28	N 32 13 24.83	W 103 48 12.23
	2597.00	0.03	161.59	2597.00	0.35	-0.13	-0.97	0.06	445470.79	705212.28	N 32 13 24.83	W 103 48 12.23
	2692.00	0.03	245.13	2692.00	0.38	-0.17	-0.99	0.04	445470.75	705212.26	N 32 13 24.83	W 103 48 12.23
	2788.00	0.03	308.96	2788.00	0.39	-0.16	-1.03	0.03	445470.76	705212.22	N 32 13 24.83	W 103 48 12.23
	2881.00	0.11	139.74	2881.00	0.43	-0.22	-0.98	0.15	445470.70	705212.26	N 32 13 24.83	W 103 48 12.23
	2975.00	0.16	89.80	2975.00	0.46	-0.28	-0.80	0.13	445470.84	705212.45	N 32 13 24.83	W 103 48 12.23
	3070.00	0.09	96.58	3070.00	0.42	-0.29	-0.59	0.08	445470.63	705212.66	N 32 13 24.83	W 103 48 12.23
	3164.00	0.03	2.70	3164.00	0.39	-0.28	-0.52	0.10	445470.64	705212.73	N 32 13 24.83	W 103 48 12.23
	3353.00	0.05	230.39	3353.00	0.40	-0.28	-0.58	0.04	445470.64	705212.67	N 32 13 24.83	W 103 48 12.23
	3448.00	0.13	211.77	3448.00	0.54	-0.40	-0.67	0.09	445470.52	705212.58	N 32 13 24.83	W 103 48 12.23
	3543.00	0.11	223.94	3542.99	0.72	-0.55	-0.79	0.03	445470.37	705212.48	N 32 13 24.83	W 103 48 12.23
	3637.00	0.03	268.48	3630.99	0.80	-0.62	-0.88	0.10	445470.30	705212.37	N 32 13 24.83	W 103 48 12.23
	3732.00	0.08	278.61	3731.99	0.81	-0.61	-0.97	0.05	445470.31	705212.28	N 32 13 24.83	W 103 48 12.23
	3826.00	0.03	220.84	3825.99	0.64	-0.62	-1.05	0.07	445470.30	705212.20	N 32 13 24.83	W 103 48 12.23
	3921.00	0.03	22.31	3920.99	0.64	-0.62	-1.06	0.06	445470.30	705212.19	N 32 13 24.83	W 103 48 12.23
	4015.00	0.08	207.28	4014.99	0.87	-0.65	-1.08	0.12	445470.27	705212.17	N 32 13 24.83	W 103 48 12.23
	4109.00	0.08	215.26	4108.99	1.00	-0.78	-1.14	0.01	445470.16	705212.11	N 32 13 24.83	W 103 48 12.24
	4210.00	0.09	106.25	4209.99	1.07	-0.84	-1.11	0.14	445470.08	705212.14	N 32 13 24.83	W 103 48 12.23
	4308.00	0.08	65.34	4307.99	1.03	-0.87	-0.82	0.02	445470.05	705212.43	N 32 13 24.83	W 103 48 12.23
	4403.00	0.03	234.68	4402.99	1.03	-0.88	-0.77	0.12	445470.04	705212.48	N 32 13 24.83	W 103 48 12.23
	4508.00	0.03	114.00	4507.99	1.05	-0.91	-0.76	0.05	445470.01	705212.49	N 32 13 24.83	W 103 48 12.23
	4602.00	0.08	163.79	4601.99	1.12	-0.88	-0.74	0.08	445469.94	705212.51	N 32 13 24.82	W 103 48 12.23
	4777.00	0.03	160.55	4776.99	1.21	-1.07	-0.74	0.06	445469.85	705212.51	N 32 13 24.82	W 103 48 12.23
	4871.00	0.03	83.34	4870.99	1.22	-1.09	-0.71	0.04	445469.83	705212.54	N 32 13 24.82	W 103 48 12.23
	4966.00	0.05	274.02	4965.99	1.22	-1.08	-0.72	0.08	445469.84	705212.53	N 32 13 24.82	W 103 48 12.23
	5060.00	2.55	322.11	5059.96	-0.10	0.37	-2.05	2.88	445471.49	705211.20	N 32 13 24.84	W 103 48 12.25
	5155.00	5.40	322.89	5154.72	-4.31	5.80	-6.05	3.00	445476.72	705207.00	N 32 13 24.89	W 103 48 12.29
	5249.00	7.81	321.14	5248.09	-11.11	14.30	-12.72	2.57	445485.22	705200.53	N 32 13 24.98	W 103 48 12.37
	5344.00	9.86	319.81	5341.99	-19.89	25.42	-21.92	1.98	445496.34	705181.33	N 32 13 25.09	W 103 48 12.48
	5438.00	10.37	318.23	5434.56	-29.28	37.55	-32.88	1.00	445508.47	705180.39	N 32 13 25.21	W 103 48 12.60
	5533.00	10.93	312.54	5527.92	-38.43	49.82	-45.41	0.93	445520.74	705187.84	N 32 13 25.33	W 103 48 12.75
	5627.00	10.77	309.24	5620.24	-48.74	61.40	-58.78	0.88	445532.32	705154.47	N 32 13 25.44	W 103 48 12.90
	5722.00	10.60	305.81	5713.59	-58.08	72.13	-72.74	0.89	445543.04	705140.51	N 32 13 25.55	W 103 48 13.08
	5816.00	9.98	304.53	5806.08	-68.45	81.60	-80.48	0.70	445552.72	705126.79	N 32 13 25.65	W 103 48 13.22
	5910.00	10.00	303.42	5899.66	-68.32	90.91	-99.98	0.21	445561.83	705113.27	N 32 13 25.74	W 103 48 13.38
	6005.00	10.04	301.16	5892.21	-71.81	99.74	-113.95	0.42	445570.68	705099.30	N 32 13 25.83	W 103 48 13.54
	6194.00	10.19	297.38	6178.27	-81.16	115.90	-142.90	0.38	445588.67	705070.36	N 32 13 25.99	W 103 48 13.68
	6288.00	10.40	290.27	6270.76	-85.20	123.53	-157.89	0.31	445594.45	705055.37	N 32 13 26.08	W 103 48 14.05
	6383.00	10.59	295.46	6364.18	-89.08	131.07	-173.43	0.22	445601.98	705039.83	N 32 13 26.14	W 103 48 14.23
	6477.00	11.69	295.34	6456.41	-93.03	138.67	-189.79	1.21	445609.79	705023.47	N 32 13 26.22	W 103 48 14.42
	6571.00	12.09	293.90	6548.39	-97.00	146.97	-207.39	0.56	445617.88	705005.88	N 32 13 26.30	W 103 48 14.63
	6666.00	12.18	291.81	6641.27	-100.45	154.72	-225.79	0.47	445625.83	704987.48	N 32 13 26.38	W 103 48 14.84
	6760.00	11.51	291.55	6733.27	-103.40	161.85	-243.72	0.72	445632.76	704969.55	N 32 13 26.43	W 103 48 15.05
	6855.00	11.84	292.31	6826.26	-106.40	169.11	-261.73	0.62	445640.02	704951.64	N 32 13 26.52	W 103 48 15.26
	6949.00	11.69	292.25	6918.20	-109.85	176.52	-279.83	0.15	445647.43	704933.44	N 32 13 26.59	W 103 48 15.47
	7043.00	11.84	291.60	7010.18	-112.70	183.77	-297.83	0.15	445654.88	704915.44	N 32 13 26.67	W 103 48 15.68
	7138.00	11.87	292.36	7103.15	-115.79	191.09	-315.97	0.17	445662.00	704897.30	N 32 13 26.74	W 103 48 15.89
	7233.00	11.62	292.67	7196.10	-118.02	198.49	-333.83	0.27	445669.40	704879.44	N 32 13 26.81	W 103 48 16.10
	7327.00	11.29	304.97	7288.13	-124.39	207.68	-350.77	2.80	445678.78	704862.51	N 32 13 26.91	W 103 48 16.29
	7421.00	12.34	322.69	7380.00	-134.58	221.80	-369.06	4.01	445682.51	704848.21	N 32 13 27.04	W 103 48 16.46
	7516.00	12.12	329.31	7472.85	-148.31	238.26	-378.30	1.49	445709.16	704838.67	N 32 13 27.21	W 103 48 16.59
	7610.00	12.03	327.19	7584.75	-162.37	253.06	-386.70	0.48	445725.97	704826.57	N 32 13 27.38	W 103 48 16.71
	7703.00	12.16	323.21	7657.84	-175.78	271.40	-398.05	0.80	445742.30	704815.22	N 32 13 27.54	W 103 48 16.84
	7798.00	12.25	316.80	7749.54	-187.67	286.52	-410.75	1.45	445757.42	704803.93	N 32 13 27.69	W 103 48 16.99

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLB P(100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° °')	Longitude (E/W ° °')
	7988.00	12.02	303.57	7934.29	-205.82	312.19	-441.12	1.48	445783.02	704772.16	N 32 13 27.84 W 103 48 17.34	
	8083.00	11.99	299.70	8027.22	-212.10	322.40	-458.02	1.07	445793.30	704755.28	N 32 13 28.05 W 103 48 17.53	
	8173.00	12.03	296.42	8115.25	-218.84	331.08	-474.82	0.83	445801.98	704738.68	N 32 13 28.13 W 103 48 17.73	
	8267.00	10.41	298.23	8207.45	-221.38	339.44	-490.87	1.78	445810.34	704722.41	N 32 13 28.22 W 103 48 17.92	
	8362.00	7.90	306.40	8301.24	-226.26	347.37	-503.69	2.97	445818.27	704709.59	N 32 13 28.30 W 103 48 18.08	
	8457.00	6.87	322.49	8395.48	-232.38	355.63	-512.31	2.50	445826.52	704700.98	N 32 13 28.38 W 103 48 18.18	
	8552.00	7.08	334.65	8489.80	-240.48	363.26	-518.17	1.58	445836.18	704695.12	N 32 13 28.47 W 103 48 18.23	
	8646.00	6.53	321.20	8583.15	-248.33	374.67	-523.99	1.78	445845.56	704689.29	N 32 13 28.57 W 103 48 18.30	
	8741.00	7.37	292.65	8677.47	-252.72	381.22	-533.00	3.70	445852.12	704680.28	N 32 13 28.63 W 103 48 18.40	
	8835.00	8.10	265.59	8770.65	-251.77	383.04	-545.17	3.91	445853.93	704688.11	N 32 13 28.65 W 103 48 18.55	
	8930.00	8.75	255.82	8864.83	-248.49	380.75	-558.85	1.85	445851.85	704684.43	N 32 13 28.63 W 103 48 18.71	
	9024.00	9.08	255.19	8957.50	-239.80	377.11	-572.94	0.35	445848.01	704640.35	N 32 13 28.59 W 103 48 18.87	
	9119.00	9.42	256.34	9051.28	-232.84	373.36	-587.72	0.43	445844.26	704625.56	N 32 13 28.58 W 103 48 19.04	
	9214.00	9.89	263.63	9144.92	-228.68	370.82	-603.39	1.38	445841.52	704609.00	N 32 13 28.53 W 103 48 19.22	
	9308.00	11.90	273.92	9237.23	-222.50	370.39	-621.08	2.87	445841.26	704592.21	N 32 13 28.53 W 103 48 19.43	
	9403.00	12.88	281.31	9330.06	-220.69	373.10	-641.06	1.84	445844.00	704572.23	N 32 13 28.56 W 103 48 19.66	
	9497.00	11.97	288.50	9421.90	-221.38	378.21	-660.41	1.79	445849.11	704552.88	N 32 13 28.61 W 103 48 19.89	
	9592.00	12.61	298.19	9514.74	-225.06	386.24	-678.89	2.67	445857.13	704534.40	N 32 13 28.69 W 103 48 20.10	
	9688.00	12.45	304.82	9606.50	-231.57	398.89	-696.25	1.56	445867.78	704517.05	N 32 13 28.80 W 103 48 20.30	
	9780.00	13.01	310.29	9698.19	-240.22	408.52	-712.64	1.37	445880.41	704500.68	N 32 13 28.92 W 103 48 20.49	
	9875.00	13.83	312.85	9790.80	-250.80	424.14	-729.13	1.08	445895.03	704484.17	N 32 13 29.07 W 103 48 20.68	
	9970.00	12.97	318.02	9883.02	-262.60	439.79	-744.58	1.95	445910.68	704468.71	N 32 13 29.22 W 103 48 20.88	
	10064.00	13.65	318.94	9974.49	-274.68	455.73	-759.21	0.77	445926.63	704454.08	N 32 13 29.38 W 103 48 21.03	
	10159.00	15.21	317.30	10066.49	-288.20	473.08	-775.32	1.64	445943.97	704437.98	N 32 13 29.55 W 103 48 21.22	
	10253.00	15.82	318.35	10157.07	-302.61	491.72	-792.20	0.71	445962.61	704421.10	N 32 13 29.74 W 103 48 21.42	
	10348.00	14.77	317.12	10248.70	-318.93	510.27	-808.04	1.16	445981.16	704404.29	N 32 13 29.92 W 103 48 21.61	
	10442.00	14.09	317.41	10339.73	-330.15	527.47	-824.94	0.73	445998.36	704386.36	N 32 13 30.09 W 103 48 21.79	
	10537.00	13.19	307.24	10432.07	-341.18	542.55	-841.40	2.89	446013.44	704371.90	N 32 13 30.24 W 103 48 21.98	
	10631.00	11.57	290.80	10523.91	-346.90	552.39	-858.75	4.11	446023.28	704354.55	N 32 13 30.34 W 103 48 22.19	
	10726.00	10.40	282.98	10617.17	-348.22	557.70	-878.02	1.99	446028.59	704337.29	N 32 13 30.40 W 103 48 22.39	
	10820.00	11.01	274.85	10709.54	-346.95	560.33	-893.23	1.77	446031.22	704320.07	N 32 13 30.42 W 103 48 22.59	
	10915.00	12.66	269.48	10802.82	-343.23	560.97	-912.89	2.07	446031.86	704300.82	N 32 13 30.43 W 103 48 22.81	
	11009.00	12.74	265.45	10894.22	-337.73	560.05	-933.32	0.94	446030.94	704279.99	N 32 13 30.42 W 103 48 23.05	
	11104.00	11.96	258.71	10987.03	-336.56	557.29	-953.42	1.72	446028.18	704259.89	N 32 13 30.46 W 103 48 23.29	
	11194.00	11.68	257.12	11078.38	-327.85	556.00	-969.47	1.13	446023.84	704239.84	N 32 13 30.38 W 103 48 23.56	
	11294.00	13.35	262.51	11172.32	-314.44	546.77	-993.15	1.11	446017.68	704220.16	N 32 13 30.29 W 103 48 23.75	
	11349.00	18.42	245.34	11270.75	-304.32	542.14	-1004.83	11.89	446013.03	704208.48	N 32 13 30.25 W 103 48 23.89	
	11435.00	31.71	225.91	11362.75	-274.06	518.36	-1038.59	18.29	445989.25	704178.72	N 32 13 30.01 W 103 48 24.28	
	11529.00	40.67	218.31	11458.50	-224.88	478.27	-1072.65	11.44	445947.18	704140.68	N 32 13 29.80 W 103 48 24.88	
	11624.00	46.41	214.03	11447.22	-194.32	422.86	-1110.34	8.08	445893.58	704102.97	N 32 13 29.07 W 103 48 25.12	
Wolfcamp Intersection	11700.00	49.72	204.33	11498.07	-110.14	373.38	-1137.73	10.44	445844.26	704075.59	N 32 13 28.98 W 103 48 25.44	
	11718.00	50.82	202.18	11509.80	-96.55	360.66	-1143.19	10.44	445831.58	704070.13	N 32 13 28.46 W 103 48 25.51	
	11813.00	54.14	188.47	11567.78	-21.89	288.35	-1162.79	12.00	445759.25	704050.54	N 32 13 27.74 W 103 48 25.74	
	11907.00	56.28	178.39	11618.43	55.80	210.09	-1167.27	10.49	445681.00	704046.05	N 32 13 28.97 W 103 48 25.80	
	12001.00	67.60	171.99	11681.48	135.52	126.45	-1180.06	10.74	445597.37	704053.28	N 32 13 28.14 W 103 48 25.72	
	12098.00	73.73	172.74	11692.90	219.43	37.85	-1148.17	6.50	445508.57	704063.15	N 32 13 25.28 W 103 48 25.58	
Top Perf Cross	12106.00	74.89	173.13	11695.60	228.48	28.09	-1148.99	12.18	445499.01	704068.34	N 32 13 25.17 W 103 48 25.57	
	12191.00	84.77	178.27	11710.59	307.87	-55.10	-1139.30	12.18	445415.82	704074.02	N 32 13 24.34 W 103 48 25.49	
	12294.00	88.09	175.34	11718.81	387.89	-117.73	-1134.71	2.56	445353.20	704078.81	N 32 13 23.72 W 103 48 25.44	
	12386.94	85.83	175.21	11715.82	370.69	-120.65	-1134.48	9.89	445350.27	704078.86	N 32 13 23.70 W 103 48 25.43	
	12486.00	87.80	176.70	11721.99	478.78	-231.28	-1126.44	2.22	445239.68	704088.86	N 32 13 22.69 W 103 48 25.48	
	12583.00	88.48	177.14	11728.07	568.05	-295.07	-1121.54	0.85	445148.97	704091.78	N 32 13 21.88 W 103 48 25.30	
	12688.00	89.31	178.83	11738.91	659.83	-420.88	-1116.20	1.98	445049.98	704095.12	N 32 13 20.72 W 103 48 25.26	
	12782.00	88.93	178.91	11738.35	751.02	-514.86	-1116.35	0.41	444955.99	704098.97	N 32 13 18.79 W 103 48 25.25	
	12874.00	89.55	179.09	11739.61	843.23	-609.94	-1114.69	0.88	444861.02	704098.83	N 32 13 16.85 W 103 48 25.23	
	12942.00	89.92	179.03	11739.38	935.47	-704.82	-1113.13	0.07	444786.04	704100.19	N 32 13 17.91 W 103 48 25.22	
	12936.00	89.48	178.28	11731.20	1028.78	-798.91	-1111.75	0.27	444672.08	704101.57	N 32 13 16.98 W 103 48 25.21	
	13030.00	89.41	178.64	11732.11	1118.01	-892.89	-1110.04	0.58	444578.09	704103.28	N 32 13 16.05 W 103 48 25.19	
	13125.00	89.24	178.77	11733.23	1210.11	-987.85	-1107.89	0.23	444483.13	704105.42	N 32 13 15.11 W 103 48 25.17	
	13219.00	89.45	178.76	11734.31	1301.26	-1081.83	-1105.87	0.22	444389.18	704107.45	N 32 13 14.16 W 103 48 25.16	
	13314.00	89.52	178.80	11735.18	1393.39	-1178.80	-1103.85	0.08	444294.19	704109.47	N 32 13 13.24 W 103 48 25.14	
	13409.00	89.55	178.80	11735.93	1485.53	-1271.78	-1101.86	0.03	444199.22	704111.46	N 32 13 12.30 W 103 48 25.12	
	13503.00	90.10	179.42	11736.22	1578.82	-1365.76	-1100.40	0.88	444105.24	704112.92	N 32 13 11.37 W 103 48 25.11	
	13598.00	90.41	179.06	11735.80	1669.14	-1460.78	-1099.14	0.50	444010.26	704114.18	N 32 13 10.43 W 103 48 25.10	
	13692.00	89.59	178.78	11735.80	1760.38	-1554.74	-1097.30	0.92	443916.28	704115.95	N 32 13 9.50 W 103 48 25.08	
	13786.00	89.15	178.43	11736.88	1851.45	-1648.71	-1095.08	0.45	443822.32	704118.24	N 32 13 8.57 W 103 48 25.06	
	13881.00	89.21	179.04	11737.88	1943.58	-1743.87	-1092.98	0.68	443727.35	704120.34	N 32 13 7.57 W 103 48 25.04	
	14071.00	89.34	178.83	11740.28	2127.97	-1833.83	-1089.81	0.09	443537.41	704123.70	N 32 13 5.75 W 103 48 25.02	
	14165.00	89.31	179.19	11741.37	2218.24	-2027.81	-1088.07	0.28	443443.44	704125.25	N 32 13 4.82 W 103 48 25.00	
	14260.00	89.34	178.89	11742.48	2311.49	-2122.59	-1085.56	0.21	443348.46	704126.75	N 32 13 3.88 W 103 48 24.98	
	14354.00	89.48	179.58	11743.46	2402.85	-2218.58	-1082.37	0.62	443254.48	704127.64	N 32 13 2.98 W 103 48 24.96	
	14443.00	89.52	179.13	11745.11	2495.98	-2305.98	-1083.21	0.23	443165.51	704130.10	N 32 13 1.08 W 103 48 24.97	
	14537.00	90.31	179.81	11745.25	2578.01	-2409.55	-1082.34	1.11	442971.52	704133.87	N 32 13 0.15 W 103 48 24.96	
	14732.00	90.27	179.15	11744.76	2770.42	-2594.55	-1081.48	0.70	442876.53	704131.84	N 32 12 59.21 W 103 48 24.96	
	14827.00	90.00	178.60	11744.54	2862.58	-2689.53	-1079.82	0.64	442781.58	704133.70	N 32 12 58.27 W 103 48 24.94	
	14921.00	89.45	178.33	11744.99	2953.83	-2783.51	-1077.92	0.97	442687.58			

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1	0.000	26.500	1/58.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only			Original Borehole / Dry Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD	
		1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only			Original Borehole / Dry Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD	
		1	26.500	717.050	Act Stns	30.000	30.000	NAL_NSG+MSHOT			Original Borehole / Dry Patton MDP1 17 Federal 171H Gyro +	
		1	717.050	16873.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS			Original Borehole / Dry Patton MDP1 17 Federal 171H Gyro +	

...Patton MDP1 17 Federal 171H\Original Borehole\Oxy Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD

Schlumberger

OXY



Borehole:

Original Borehole

Well:

Patton MDP1 17 Federal 171H

Field:

NM Eddy County (NAD 83)

Structure:

Oxy Patton MDP1 17 Federal 171H

Gravity & Magnetic Parameters

Model: H02M 2018 Dip: 03.954° Date: 12-Aug-2018
 MagDec: 0.967° F.S.: 47994.73m/s Gravity F.S.: 980.42m/s (0.02555 Based)

Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet

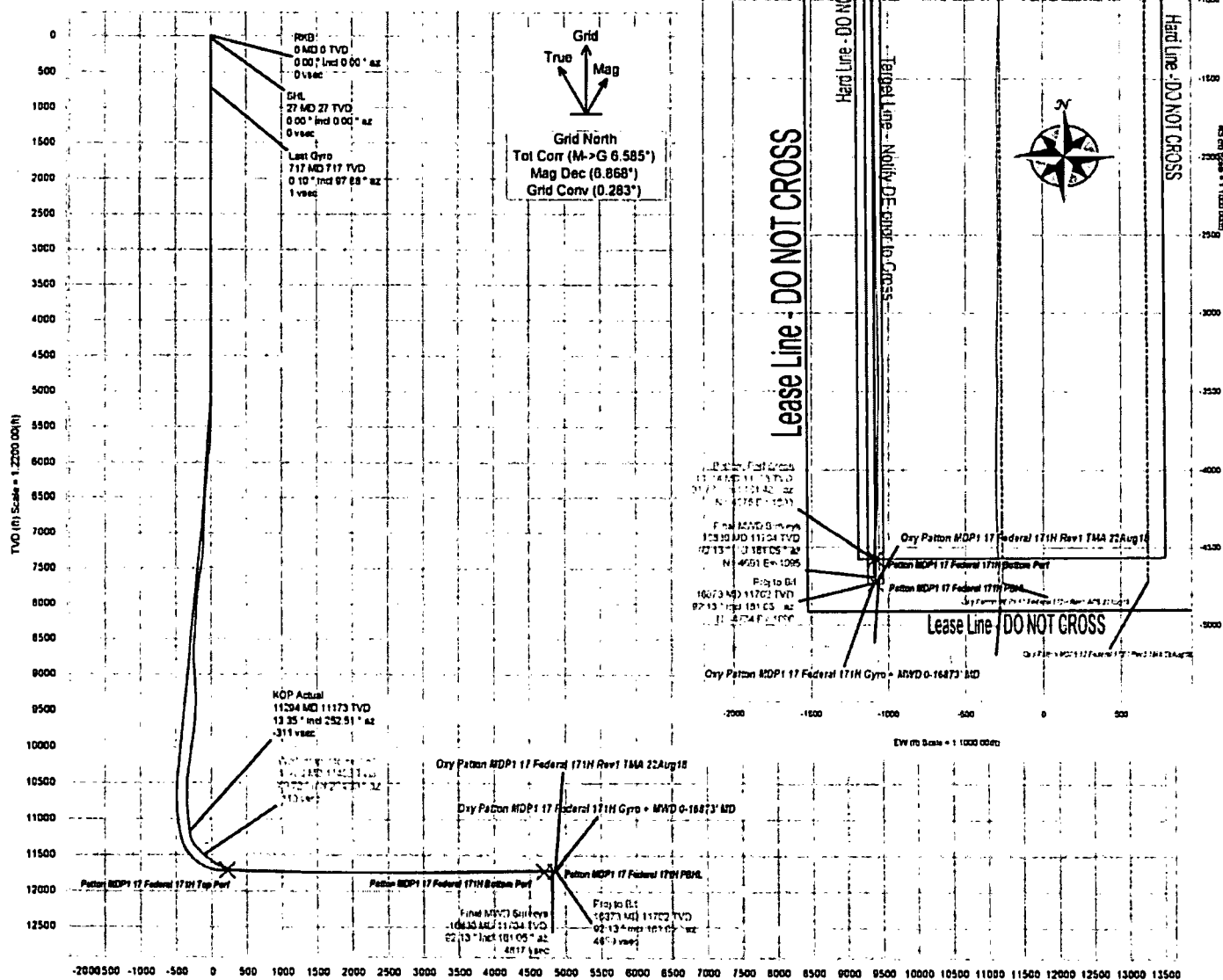
Lat: N 32 11 34.83 Northing: 646479.827US Grid Conv.: 0.283°
 Lon: W 101 48 12.22 Easting: 708213.258US Scale Fact: 0.99923386

Miscellaneous

Site: Patton MDP1 17 TVD Ref: RKB-26.5' (13584 ft above MSL)
 Plan: Oxy Patton MDP1 17 Federal 171H Gyro + MWD 0-16873' MD

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(H)/S(H)	E(H)/W(H)	DLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
GHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	
Last Gyro	717.05	0.10	97.88	717.05	0.71	-0.51	-0.97	0.02
KOP Actual	11294.00	13.35	252.51	11172.52	-311.44	546.77	-993.15	1.11
Wellcamp Intersection	11700.00	49.72	204.33	11498.07	-110.14	373.36	-1137.73	10.44
Top Perf Cross	12108.00	74.89	173.13	11695.60	228.48	28.89	-1148.99	12.18
Bottom Perf Cross	18714.00	81.77	181.42	11707.87	4703.80	-4575.31	-1092.82	2.12
Final MWD Surveys	18830.00	82.13	181.05	11703.96	4817.32	-4691.22	-1095.23	0.42
Proj to B4	18873.00	82.13	181.05	11702.36	4859.38	-4734.18	-1096.02	0.00



Vertical Section (ft) Azim = 182.89° Scale = 1:2200 DD(R) Origin = DNI-S, OE/4W