Schlumberger

Oxy Patton MDP1 17 Federal 3H Gyro+MWD 0-15,210' Survey Geodetic Report
(Def Survey)

30-015-44496

Report Date:	February 09, 2018 - 09:05 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	180.076 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Patton MDP1 17 Federal 3H / Oxy Patton MDP1 17 Federal 3H	**TVD Reference Datum:**	RKB=26.5'
Well:	Oxy Patton MDP1 17 Federal 3H	**TVD Reference Elevation:**	3567.300 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3540.800 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.925 °
Survey Name:	Oxy Patton MDP1 17 Federal 3H Gyro+MWD 0-15,210'	**Total Gravity Field Strength:**	998.4279mgn (9.80665 Based)
Survey Date:	January 29, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	172.675 ° / 5575.977 ft / 6.161 / 0.552	**Total Magnetic Field Strength:**	48051.229 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.980 °
Location Lat / Long:	N 32° 13' 32.81019", W 103° 48' 4.21813"	**Declination Date:**	January 29, 2018
Location Grid N/E Y/X:	N 446280.300 ftUS, E 705896.760 ftUS	**Magnetic Declination Model:**	HDGM 2017
CRS Grid Convergence Angle:	0.2838 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99994011	**Grid Convergence Used:**	0.2838 °
Version / Patch:	2.10.696.0	**Total Corr Mag North->Grid North:**	6.6417 °
		Local Coord Referenced To:	Well Head

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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 ° ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	446280.30	705896.76	N 32 13 32.81	W 103 48 4.22
RKB	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	446280.30	705896.76	N 32 13 32.81	W 103 48 4.22
	109.61	0.59	187.21	109.61	0.42	-0.42	-0.05	0.71	446279.88	705896.71	N 32 13 32.81	W 103 48 4.22
	199.49	1.08	202.22	199.48	1.67	-1.67	-0.43	0.59	446278.63	705896.33	N 32 13 32.79	W 103 48 4.22
	289.88	1.67	209.17	289.84	3.61	-3.61	-1.40	0.68	446276.69	705895.36	N 32 13 32.77	W 103 48 4.23
	381.29	1.81	211.08	381.21	6.01	-6.01	-2.79	0.17	446274.29	705893.97	N 32 13 32.75	W 103 48 4.25
	472.14	1.19	208.92	472.03	8.07	-8.06	-3.99	0.69	446272.24	705892.77	N 32 13 32.73	W 103 48 4.27
	562.94	0.81	200.86	562.81	9.49	-9.49	-4.67	0.45	446270.82	705892.09	N 32 13 32.72	W 103 48 4.27
	660.80	0.91	211.84	660.66	10.80	-10.79	-5.33	0.20	446269.51	705891.43	N 32 13 32.70	W 103 48 4.28
	755.24	0.61	220.85	755.10	11.82	-11.81	-6.05	0.34	446268.49	705890.71	N 32 13 32.69	W 103 48 4.29
	849.81	0.09	209.08	849.66	12.26	-12.26	-6.42	0.55	446268.05	705890.34	N 32 13 32.69	W 103 48 4.29
	944.24	0.05	184.38	944.09	12.37	-12.36	-6.46	0.05	446267.94	705890.30	N 32 13 32.69	W 103 48 4.29
	1038.58	0.05	171.87	1038.43	12.45	-12.44	-6.45	0.01	446267.86	705890.31	N 32 13 32.69	W 103 48 4.29
	1133.08	0.08	41.74	1132.93	12.44	-12.43	-6.40	0.13	446267.87	705890.36	N 32 13 32.69	W 103 48 4.29
	1227.69	0.09	39.38	1227.54	12.34	-12.33	-6.31	0.01	446267.97	705890.45	N 32 13 32.69	W 103 48 4.29
	1322.14	0.07	45.05	1321.99	12.24	-12.23	-6.23	0.02	446268.07	705890.53	N 32 13 32.69	W 103 48 4.29
	1416.49	0.07	48.28	1416.34	12.16	-12.15	-6.14	0.00	446268.15	705890.62	N 32 13 32.69	W 103 48 4.29
	1510.77	0.08	47.48	1510.62	12.08	-12.07	-6.05	0.01	446268.23	705890.71	N 32 13 32.69	W 103 48 4.29
	1605.04	0.08	47.23	1604.89	11.99	-11.98	-5.95	0.00	446268.32	705890.81	N 32 13 32.69	W 103 48 4.29
	1699.50	0.07	53.65	1699.35	11.91	-11.90	-5.86	0.01	446268.40	705890.90	N 32 13 32.69	W 103 48 4.29
	1793.88	0.08	56.28	1793.73	11.84	-11.83	-5.76	0.01	446268.47	705891.00	N 32 13 32.69	W 103 48 4.29
	1888.18	0.11	53.88	1888.03	11.75	-11.74	-5.63	0.03	446268.56	705891.13	N 32 13 32.69	W 103 48 4.28
	1982.56	0.10	304.70	1982.41	11.65	-11.64	-5.62	0.18	446268.66	705891.14	N 32 13 32.70	W 103 48 4.28
	2076.97	0.09	289.16	2076.82	11.57	-11.57	-5.76	0.03	446268.73	705891.00	N 32 13 32.70	W 103 48 4.29
	2171.51	0.07	304.08	2171.36	11.52	-11.51	-5.88	0.03	446268.79	705890.88	N 32 13 32.70	W 103 48 4.29
	2265.98	0.07	297.35	2265.83	11.46	-11.45	-5.98	0.01	446268.85	705890.78	N 32 13 32.70	W 103 48 4.29
	2360.26	0.09	312.80	2360.11	11.38	-11.37	-6.08	0.03	446268.93	705890.68	N 32 13 32.70	W 103 48 4.29
	2454.79	0.08	295.48	2454.64	11.30	-11.30	-6.20	0.03	446269.00	705890.56	N 32 13 32.70	W 103 48 4.29
	2549.14	0.16	316.51	2548.99	11.18	-11.17	-6.35	0.10	446269.13	705890.41	N 32 13 32.70	W 103 48 4.29
	2643.63	0.17	317.19	2643.48	10.98	-10.97	-6.53	0.01	446269.33	705890.23	N 32 13 32.70	W 103 48 4.29
	2738.02	0.22	320.64	2737.87	10.74	-10.73	-6.74	0.05	446269.57	705890.02	N 32 13 32.70	W 103 48 4.30
	2832.46	0.23	321.21	2832.31	10.45	-10.44	-6.98	0.01	446269.86	705889.78	N 32 13 32.71	W 103 48 4.30
	2926.76	0.14	249.47	2926.61	10.35	-10.34	-7.21	0.24	446269.96	705889.56	N 32 13 32.71	W 103 48 4.30
	3021.23	0.44	179.35	3021.08	10.75	-10.74	-7.31	0.44	446269.56	705889.45	N 32 13 32.70	W 103 48 4.30
	3115.48	0.52	131.74	3115.33	11.39	-11.39	-6.99	0.42	446268.92	705889.77	N 32 13 32.70	W 103 48 4.30
	3209.66	0.55	110.71	3209.50	11.84	-11.83	-6.24	0.21	446268.47	705890.52	N 32 13 32.69	W 103 48 4.29
	3304.01	0.49	105.05	3303.85	12.10	-12.09	-5.43	0.08	446268.21	705891.33	N 32 13 32.69	W 103 48 4.28
	3398.27	0.41	103.68	3398.10	12.29	-12.28	-4.71	0.09	446268.02	705892.05	N 32 13 32.69	W 103 48 4.27
	3492.64	0.36	105.76	3492.47	12.45	-12.44	-4.10	0.06	446267.86	705892.66	N 32 13 32.69	W 103 48 4.27
	3586.99	0.45	103.32	3586.82	12.61	-12.61	-3.45	0.10	446267.70	705893.31	N 32 13 32.69	W 103 48 4.26
	3681.41	0.78	116.90	3681.23	12.99	-12.98	-2.52	0.38	446267.32	705894.24	N 32 13 32.68	W 103 48 4.25
	3775.94	1.01	123.49	3775.75	13.73	-13.73	-1.25	0.27	446266.57	705895.51	N 32 13 32.67	W 103 48 4.23
	3870.27	1.09	124.68	3870.07	14.70	-14.70	0.18	0.09	446265.60	705896.94	N 32 13 32.66	W 103 48 4.22
	3964.83	1.47	132.60	3964.60	16.03	-16.03	1.81	0.44	446264.27	705898.57	N 32 13 32.65	W 103 48 4.20
	4059.27	1.78	149.18	4059.01	18.11	-18.11	3.45	0.59	446262.19	705900.21	N 32 13 32.63	W 103 48 4.18
	4153.57	2.14	157.56	4153.25	20.99	-21.00	4.88	0.49	446259.30	705901.64	N 32 13 32.60	W 103 48 4.16
	4247.97	1.84	159.57	4247.59	24.04	-24.05	6.08	0.33	446256.25	705902.84	N 32 13 32.57	W 103 48 4.15
	4342.35	1.82	158.07	4341.93	26.85	-26.86	7.17	0.05	446253.44	705903.93	N 32 13 32.54	W 103 48 4.14
	4436.93	1.67	159.03	4436.46	29.53	-29.54	8.22	0.16	446250.76	705904.98	N 32 13 32.52	W 103 48 4.12
	4531.13	2.17	173.98	4530.61	32.58	-32.59	8.90	0.75	446247.71	705905.66	N 32 13 32.49	W 103 48 4.12
	4625.68	3.05	186.11	4625.06	36.86	-36.88	8.82	1.09	446243.43	705905.58	N 32 13 32.44	W 103 48 4.12
	4720.18	3.92	193.02	4719.39	42.51	-42.52	7.82	1.02	446237.78	705904.58	N 32 13 32.39	W 103 48 4.13
	4814.67	4.67	197.68	4813.61	49.33	-49.33	5.93	0.87	446230.97	705902.69	N 32 13 32.32	W 103 48 4.15
	4908.95	5.28	195.47	4907.53	57.17	-57.17	3.61	0.68	446223.13	705900.37	N 32 13 32.24	W 103 48 4.18
	5003.52	6.29	189.47	5001.62	66.47	-66.48	1.59	1.24	446213.83	705898.35	N 32 13 32.15	W 103 48 4.20
	5097.69	7.02	188.97	5095.16	77.25	-77.25	-0.15	0.78	446203.06	705896.61	N 32 13 32.05	W 103 48 4.22
	5192.15	7.44	186.96	5188.87	89.02	-89.02	-1.79	0.52	446191.28	705894.97	N 32 13 31.93	W 103 48 4.24
	5286.62	7.71	186.17	5282.51	101.40	-101.39	-3.22	0.31	446178.91	705893.54	N 32 13 31.81	W 103 48 4.26
	5380.95	7.80	180.07	5375.98	114.09	-114.08	-3.90	0.88	446166.22	705892.86	N 32 13 31.68	W 103 48 4.27
	5475.38	7.56	172.17	5469.57	126.65	-126.65	-3.07	1.15	446153.66	705893.69	N 32 13 31.56	W 103 48 4.26
	5569.71	7.59	162.93	5563.08	138.75	-138.75	-0.39	1.29	446141.56	705896.37	N 32 13 31.44	W 103 48 4.23
	5664.05	7.74	155.24	5656.58	150.47	-150.47	4.10	1.10	446129.83	705900.86	N 32 13 31.32	W 103 48 4.18
	5758.55	7.74	146.44	5750.22	161.54	-161.56	10.28	1.25	446118.75	705907.04	N 32 13 31.21	W 103 48 4.11
	5853.07	7.14	139.71	5843.94	171.32	-171.34	17.60	1.12	446108.97	705914.36	N 32 13 31.11	W 103 48 4.02
	5947.37	6.53	135.90	5937.57	179.63	-179.66	25.12	0.81	446100.65	705921.88	N 32 13 31.03	W 103 48 3.94
	6041.84	5.76	132.94	6031.50	186.71	-186.75	32.33	0.88	446093.56	705929.09	N 32 13 30.96	W 103 48 3.85
	6136.23	5.05	127.55	6125.47	192.46	-192.51	39.09	0.92	446087.80	705935.85	N 32 13 30.90	W 103 48 3.77
	6230.81	4.37	122.64	6219.73	196.93	-196.99	45.42	0.84	446083.32	705942.18	N 32 13 30.86	W 103 48 3.70
	6325.17	3.48	116.18	6313.87	200.12	-200.19	51.02	1.05	446080.12	705947.78	N 32 13 30.83	W 103 48 3.64
	6419.67	3.04	109.92	6408.22	202.24	-202.31	55.95	0.60	446078.00	705952.71	N 32 13 30.81	W 103 48 3.58
	6513.99	2.07	107.47	6502.44	203.59	-203.67	59.93	1.03	446076.64	705956.68	N 32 13 30.79	W 103 48 3.53
	6608.28	1.41	95.21	6596.69	204.21	-204.29	62.71	0.80	446076.02	705959.46	N 32 13 30.79	W 103 48 3.50
	6702.60	0.10	7.68	6691.00	204.23	-204.31	63.87	1.49	446076.00	705960.63	N 32 13 30.79	W 103 48 3.49
	6797.13	0.02	2.19	6785.53	204.13	-204.22	63.89	0.08	446076.10	705960.64	N 32 13 30.79	W 103 48 3.49
	6891.59	0.03	20.37	6879.99	204.09	-204.18	63.90	0.01	446076.14	705960.65	N 32 13 30.79	W 103 48 3.49
	6986.00	0.02	28.38	6974.40	204.05	-204.14	63.91	0.01	446076.17	705960.67	N 32 13 30.79	W 103 48 3.49
	7080.52	0.05	223.90	7068.92	204.07	-204.15	63.89	0.07	446076.16	705960.65	N 32 13 30.79	W 103 48 3.49

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 ° ' ")
	7175.07	0.04	225.08	7163.47	204.12	-204.21	63.84	0.01	446076.11	705960.60	N 32 13 30.79	W 103 48 3.49
	7269.52	0.05	213.61	7257.92	204.18	-204.26	63.79	0.01	446076.05	705960.55	N 32 13 30.79	W 103 48 3.49
	7363.92	0.04	221.46	7352.32	204.24	-204.32	63.75	0.01	446075.99	705960.50	N 32 13 30.79	W 103 48 3.49
	7458.46	0.05	219.24	7446.86	204.30	-204.38	63.70	0.01	446075.93	705960.46	N 32 13 30.78	W 103 48 3.49
	7552.99	0.04	222.87	7541.39	204.35	-204.44	63.65	0.01	446075.88	705960.41	N 32 13 30.78	W 103 48 3.49
	7647.40	0.04	206.16	7635.80	204.41	-204.49	63.61	0.01	446075.82	705960.37	N 32 13 30.78	W 103 48 3.49
	7741.86	0.05	218.97	7730.26	204.47	-204.55	63.57	0.01	446075.76	705960.33	N 32 13 30.78	W 103 48 3.49
	7836.38	0.05	222.64	7824.78	204.53	-204.61	63.52	0.00	446075.70	705960.28	N 32 13 30.78	W 103 48 3.49
	7930.72	0.05	206.67	7919.12	204.60	-204.68	63.47	0.01	446075.63	705960.23	N 32 13 30.78	W 103 48 3.49
	8025.24	0.06	219.29	8013.64	204.67	-204.76	63.42	0.02	446075.56	705960.18	N 32 13 30.78	W 103 48 3.49
	8119.56	0.04	54.47	8107.96	204.69	-204.78	63.42	0.11	446075.54	705960.18	N 32 13 30.78	W 103 48 3.49
	8214.08	0.03	54.00	8202.48	204.66	-204.74	63.47	0.01	446075.57	705960.22	N 32 13 30.78	W 103 48 3.49
	8308.57	0.05	111.34	8296.97	204.66	-204.74	63.53	0.04	446075.57	705960.28	N 32 13 30.78	W 103 48 3.49
	8402.94	0.03	48.14	8391.34	204.66	-204.74	63.58	0.05	446075.57	705960.34	N 32 13 30.78	W 103 48 3.49
	8497.27	0.16	18.93	8485.67	204.52	-204.60	63.64	0.14	446075.71	705960.40	N 32 13 30.78	W 103 48 3.49
	8591.79	0.07	18.93	8580.19	204.34	-204.42	63.70	0.10	446075.89	705960.46	N 32 13 30.78	W 103 48 3.49
	8686.35	0.05	55.67	8674.75	204.26	-204.34	63.76	0.04	446075.97	705960.51	N 32 13 30.79	W 103 48 3.49
	8780.79	0.05	55.31	8769.19	204.21	-204.30	63.83	0.00	446076.02	705960.58	N 32 13 30.79	W 103 48 3.49
	8875.22	0.03	58.35	8863.62	204.17	-204.26	63.88	0.02	446076.05	705960.64	N 32 13 30.79	W 103 48 3.49
	8969.58	0.02	28.28	8957.98	204.15	-204.23	63.91	0.02	446076.08	705960.66	N 32 13 30.79	W 103 48 3.49
	9063.92	0.11	107.43	9052.32	204.16	-204.24	64.00	0.11	446076.07	705960.76	N 32 13 30.79	W 103 48 3.48
	9158.34	0.94	193.96	9146.73	204.94	-205.02	63.90	1.00	446075.29	705960.66	N 32 13 30.78	W 103 48 3.49
Last Gyro	9253.61	0.49	239.69	9242.00	205.90	-205.99	63.36	0.73	446074.33	705960.12	N 32 13 30.77	W 103 48 3.49
	9387.00	0.32	282.67	9375.38	206.11	-206.19	62.51	0.25	446074.12	705959.26	N 32 13 30.77	W 103 48 3.50
	9465.00	0.38	152.32	9453.38	206.29	-206.37	62.41	0.82	446073.94	705959.17	N 32 13 30.77	W 103 48 3.50
	9561.00	10.42	186.36	9548.84	215.23	-215.31	61.60	10.53	446065.01	705958.35	N 32 13 30.68	W 103 48 3.51
	9656.00	12.83	179.35	9641.89	234.32	-234.40	60.77	2.94	446045.92	705957.52	N 32 13 30.49	W 103 48 3.52
	9750.00	15.35	189.73	9733.07	257.02	-257.10	58.78	3.79	446023.21	705955.54	N 32 13 30.26	W 103 48 3.55
	9845.00	20.43	186.05	9823.45	285.93	-286.00	54.91	5.48	445994.31	705951.66	N 32 13 29.98	W 103 48 3.60
	9940.00	30.69	174.77	9909.08	326.69	-326.77	55.37	11.91	445953.55	705952.13	N 32 13 29.57	W 103 48 3.59
	10034.00	44.69	168.68	9983.31	383.28	-383.37	64.09	15.40	445896.96	705960.85	N 32 13 29.01	W 103 48 3.49
	10129.00	57.87	170.45	10042.60	456.01	-456.12	77.38	13.95	445824.21	705974.14	N 32 13 28.29	W 103 48 3.34
	10223.00	71.99	176.15	10082.36	540.33	-540.45	87.04	15.99	445739.89	705983.80	N 32 13 27.46	W 103 48 3.24
	10317.00	86.62	186.16	10099.80	632.30	-632.41	84.99	18.74	445647.92	705981.75	N 32 13 26.55	W 103 48 3.27
	10412.00	91.41	188.26	10101.43	726.52	-726.62	73.07	5.50	445553.73	705969.83	N 32 13 25.62	W 103 48 3.41
	10467.00	91.31	188.49	10100.13	780.93	-781.01	65.06	0.46	445499.33	705961.82	N 32 13 25.08	W 103 48 3.51
	10656.00	92.44	188.52	10093.95	967.78	-967.83	37.13	0.60	445312.53	705933.89	N 32 13 23.23	W 103 48 3.84
	10750.00	92.82	189.59	10089.63	1060.53	-1060.56	22.35	1.21	445219.80	705919.11	N 32 13 22.31	W 103 48 4.02
	10939.00	92.75	186.56	10080.45	1247.45	-1247.45	-4.16	1.60	445032.93	705892.60	N 32 13 20.47	W 103 48 4.34
	11128.00	92.72	181.09	10071.42	1435.76	-1435.74	-16.75	2.89	444844.65	705880.01	N 32 13 18.60	W 103 48 4.50
	11222.00	92.92	180.49	10066.80	1529.64	-1529.61	-18.05	0.67	444750.78	705878.71	N 32 13 17.68	W 103 48 4.52
	11411.00	92.27	179.68	10058.24	1718.44	-1718.42	-18.33	0.55	444561.99	705878.43	N 32 13 15.81	W 103 48 4.53
	11600.00	90.69	179.88	10053.36	1907.37	-1907.35	-17.60	0.84	444373.07	705879.16	N 32 13 13.94	W 103 48 4.53
	11695.00	91.00	179.77	10051.96	2002.36	-2002.34	-17.31	0.35	444278.09	705879.45	N 32 13 13.00	W 103 48 4.54
	11789.00	90.96	179.59	10050.35	2096.34	-2096.32	-16.79	0.20	444184.11	705879.97	N 32 13 12.07	W 103 48 4.53
	11978.00	90.21	179.25	10048.42	2285.32	-2285.30	-14.87	0.44	443995.14	705881.89	N 32 13 10.20	W 103 48 4.52
	12166.00	90.35	180.05	10047.50	2473.31	-2473.29	-13.73	0.43	443807.16	705883.04	N 32 13 8.34	W 103 48 4.52
	12355.00	90.17	179.41	10046.64	2662.30	-2662.29	-12.83	0.35	443618.18	705883.93	N 32 13 6.47	W 103 48 4.52
	12450.00	90.24	179.81	10046.30	2757.30	-2757.28	-12.19	0.43	443523.19	705884.57	N 32 13 5.53	W 103 48 4.52
	12544.00	90.45	180.29	10045.74	2851.30	-2851.28	-12.27	0.56	443429.19	705884.49	N 32 13 4.60	W 103 48 4.53
	12639.00	90.35	180.45	10045.07	2946.29	-2946.28	-12.88	0.20	443334.20	705883.88	N 32 13 3.66	W 103 48 4.54
	12733.00	90.04	180.67	10044.75	3040.29	-3040.27	-13.80	0.40	443240.21	705882.96	N 32 13 2.73	W 103 48 4.55
	12922.00	91.11	180.35	10042.86	3229.27	-3229.25	-15.48	0.59	443051.25	705881.28	N 32 13 0.86	W 103 48 4.58
	13111.00	90.15	181.41	10040.78	3418.24	-3418.21	-18.39	0.76	442862.30	705878.37	N 32 12 58.99	W 103 48 4.63
	13206.00	89.80	180.87	10040.82	3513.22	-3513.20	-20.28	0.68	442767.32	705876.48	N 32 12 58.05	W 103 48 4.66
	13300.00	87.84	180.01	10042.76	3607.19	-3607.17	-21.00	2.28	442673.36	705875.76	N 32 12 57.12	W 103 48 4.67
	13394.00	90.42	180.18	10044.18	3701.17	-3701.15	-21.16	2.75	442579.38	705875.61	N 32 12 56.19	W 103 48 4.68
	13583.00	89.56	179.77	10044.22	3890.17	-3890.15	-21.07	0.50	442390.39	705875.69	N 32 12 54.32	W 103 48 4.69
	13772.00	90.70	180.33	10043.79	4079.17	-4079.14	-21.24	0.67	442201.41	705875.52	N 32 12 52.45	W 103 48 4.70
	13867.00	89.43	180.15	10043.68	4174.16	-4174.14	-21.64	1.35	442106.42	705875.13	N 32 12 51.51	W 103 48 4.71
	13961.00	89.32	180.55	10044.71	4268.16	-4268.13	-22.21	0.44	442012.43	705874.55	N 32 12 50.58	W 103 48 4.72
	14150.00	89.63	179.92	10046.44	4457.15	-4457.12	-22.98	0.37	441823.46	705873.78	N 32 12 48.71	W 103 48 4.74
	14339.00	89.29	180.18	10048.22	4646.14	-4646.11	-23.15	0.23	441634.48	705873.61	N 32 12 46.84	W 103 48 4.76
	14528.00	88.29	180.15	10052.21	4835.09	-4835.07	-23.69	0.53	441445.53	705873.07	N 32 12 44.97	W 103 48 4.77
	14622.00	89.54	179.95	10053.99	4929.07	-4929.05	-23.78	1.35	441351.56	705872.99	N 32 12 44.04	W 103 48 4.78
	14811.00	91.23	180.23	10052.72	5118.06	-5118.04	-24.07	0.91	441162.58	705872.69	N 32 12 42.17	W 103 48 4.79
	15000.00	90.47	180.57	10049.92	5307.04	-5307.01	-25.39	0.44	440973.62	705871.37	N 32 12 40.30	W 103 48 4.82
Final MWD Survey	15172.00	86.31	180.20	10054.75	5478.93	-5478.90	-26.55	2.43	440801.74	705870.21	N 32 12 38.60	W 103 48 4.84
Proj. to Bit	15210.00	86.31	180.20	10057.19	5516.85	-5516.82	-26.68	0.00	440763.82	705870.08	N 32 12 38.22	W 103 48 4.85

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Patton MDP1 17 Federal 3H Gyro+MWD 0-15,210'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Patton MDP1 17 Federal 3H Gyro+MWD 0-15,210'
	1	26.500	9253.610	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Patton MDP1 17 Federal 3H Gyro+MWD
	1	9253.610	10412.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Patton MDP1 17 Federal 3H Gyro+MWD
	1	10412.000	15210.000	Act Stns	30.000	30.000	NAL_MWD_HDGM+MS	Original Borehole / Oxy Patton MDP1 17 Federal 3H Gyro+MWD

Final PvA - Rev3

H&P 657 (RKB=26.5')

Schlumberger

OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Patton MDP1 17 Federal 3H	NM Eddy County (NAD 83)	Oxy Patton MDP1 17 Federal 3H

Gravity & Magnetic Parameters					Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2017	Dip:	59.98°	Date:	29-Jan-2018	Lat:	N 32 13 32.81	Northing:	446280.3ftUS	Grid Conv:	0.2838°	Slot:	Oxy Patton MDP1 17 Federal 3H	TVD Ref:	RKB=26.5'(3567.3ft above MSL)
MagDec:	6.925°	FS:	48061.228nT	Gravity FS:	999.428mgn (9.80665 Based)	Lon:	W 103 48 4.22	Easting:	705896.75ftUS	Scale Fact:	0.99994011	Plan:	Oxy Patton MDP1 17 Federal 3H REV3 ALS 29Jan18