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30-015-44704

Schlumberger

Oxy Corral Fly 35-26 Federal Com 23H Gyro+MWD 0-19,480' Survey Geodetic Report

(Def Survey)

OXY

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 13 2018

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Report Date:	June 12, 2018 - 09:33 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	OXY	**Vertical Section Azimuth:**	4.634 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Corral Fly 35-26 Federal Com 23H / Oxy Corral Fly 35-26 Federal Com 23H	**TVD Reference Datum:**	RKB=26.5'
Well:	Oxy Corral Fly 35-26 Federal Com 23H	**TVD Reference Elevation:**	3045.000 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3018.500 ft above MSL
UWI / API#:	Unknown / 30-015-44704	**Magnetic Declination:**	6.997 °
Survey Name:	Oxy Corral Fly 35-26 Federal Com 23H Gyro+MWD 0-19,480'	**Total Gravity Field Strength:**	998.4574mgn (9.80665 Based)
Survey Date:	June 05, 2018	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	294.228 ° / 11585.409 ft / 0.870 / 1.205	**Total Magnetic Field Strength:**	47089.582 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.923 °
Location Lat / Long:	N 32° 9' 52.65997", W 103° 57' 34.07695"	**Declination Date:**	June 05, 2018
Location Grid N/E Y/X:	N 423827.570 ftUS, E 657024.770 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.1990 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992442	**Grid Convergence Used:**	0.1990 °
Version / Patch:	2.10.720.0	**Total Corr Mag North->Grid North:**	6.7982 °
		Local Coord Referenced To:	Well Head

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 ° ' ")
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	423827.57	657024.77	N 32 9 52.66	W 103 57 34.08
SHL	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	423827.57	657024.77	N 32 9 52.66	W 103 57 34.08
	99.20	0.27	242.64	99.20	-0.09	-0.08	-0.15	0.37	423827.49	657024.62	N 32 9 52.66	W 103 57 34.08
	133.00	0.40	247.65	133.00	-0.19	-0.16	-0.33	0.39	423827.41	657024.44	N 32 9 52.66	W 103 57 34.08
	219.50	0.40	229.72	219.50	-0.54	-0.47	-0.84	0.14	423827.10	657023.93	N 32 9 52.66	W 103 57 34.09
	310.20	0.06	349.39	310.20	-0.71	-0.63	-1.09	0.48	423826.94	657023.68	N 32 9 52.65	W 103 57 34.09
Last Gyro	397.50	0.53	77.18	397.50	-0.55	-0.49	-0.71	0.61	423827.08	657024.06	N 32 9 52.66	W 103 57 34.09
	477.00	0.77	74.61	476.99	-0.26	-0.27	0.17	0.30	423827.30	657024.84	N 32 9 52.66	W 103 57 34.08
	537.00	0.58	74.14	536.99	-0.01	-0.08	0.85	0.32	423827.49	657025.62	N 32 9 52.66	W 103 57 34.07
	627.00	0.01	304.00	626.98	0.15	0.05	1.28	0.65	423827.62	657026.05	N 32 9 52.66	W 103 57 34.06
	806.00	0.02	171.50	805.98	0.13	0.03	1.27	0.02	423827.60	657026.04	N 32 9 52.66	W 103 57 34.06
	988.00	0.04	214.47	985.98	0.04	-0.06	1.24	0.02	423827.51	657026.01	N 32 9 52.66	W 103 57 34.06
	1077.00	0.01	135.30	1076.98	0.01	-0.09	1.23	0.04	423827.48	657026.00	N 32 9 52.66	W 103 57 34.06
	1169.00	0.05	50.24	1168.98	0.03	-0.07	1.26	0.05	423827.50	657026.03	N 32 9 52.66	W 103 57 34.06
	1260.00	0.05	101.52	1259.98	0.06	-0.05	1.33	0.05	423827.52	657026.10	N 32 9 52.66	W 103 57 34.06
	1355.00	0.05	166.61	1354.98	0.01	-0.10	1.38	0.06	423827.47	657026.15	N 32 9 52.66	W 103 57 34.06
	1449.00	0.05	93.20	1448.98	-0.03	-0.14	1.43	0.06	423827.43	657026.20	N 32 9 52.66	W 103 57 34.06
	1545.00	0.03	161.82	1544.98	-0.05	-0.17	1.48	0.05	423827.40	657026.25	N 32 9 52.66	W 103 57 34.06
	1639.00	0.09	313.09	1638.98	-0.02	-0.14	1.44	0.12	423827.43	657026.21	N 32 9 52.66	W 103 57 34.06
	1735.00	0.04	267.72	1734.98	0.02	-0.09	1.35	0.07	423827.48	657026.12	N 32 9 52.66	W 103 57 34.06
	1830.00	0.08	241.22	1829.98	-0.02	-0.12	1.26	0.05	423827.45	657026.03	N 32 9 52.66	W 103 57 34.06
	1925.00	0.02	270.12	1924.98	-0.06	-0.16	1.18	0.07	423827.41	657025.95	N 32 9 52.66	W 103 57 34.06
	2019.00	0.06	4.80	2018.98	-0.01	-0.11	1.17	0.07	423827.46	657025.94	N 32 9 52.66	W 103 57 34.06
	2114.00	0.07	153.25	2113.98	-0.01	-0.11	1.20	0.13	423827.46	657025.97	N 32 9 52.66	W 103 57 34.06
	2209.00	0.13	183.49	2208.98	-0.17	-0.27	1.22	0.08	423827.30	657025.99	N 32 9 52.66	W 103 57 34.06
	2304.00	0.05	276.14	2303.98	-0.28	-0.37	1.17	0.15	423827.20	657025.94	N 32 9 52.66	W 103 57 34.06
	2399.00	0.07	243.48	2398.98	-0.30	-0.39	1.08	0.04	423827.18	657025.85	N 32 9 52.66	W 103 57 34.06
	2494.00	0.06	14.40	2493.98	-0.29	-0.37	1.04	0.12	423827.20	657025.81	N 32 9 52.66	W 103 57 34.06
	2589.00	0.07	320.26	2588.98	-0.19	-0.27	1.02	0.08	423827.30	657025.79	N 32 9 52.66	W 103 57 34.07
	2684.00	0.02	223.44	2683.98	-0.16	-0.24	0.98	0.08	423827.33	657025.75	N 32 9 52.66	W 103 57 34.07
	2779.00	0.07	253.63	2778.98	-0.19	-0.27	0.91	0.06	423827.30	657025.68	N 32 9 52.66	W 103 57 34.07
	2969.00	0.04	89.35	2968.98	-0.23	-0.30	0.86	0.06	423827.27	657025.63	N 32 9 52.66	W 103 57 34.07
	3158.00	0.04	270.51	3157.98	-0.22	-0.29	0.87	0.04	423827.28	657025.64	N 32 9 52.66	W 103 57 34.07
	3348.00	0.04	320.94	3347.98	-0.18	-0.22	0.70	0.01	423827.35	657025.53	N 32 9 52.66	W 103 57 34.07
	3537.00	0.07	297.16	3536.98	-0.07	-0.12	0.61	0.02	423827.45	657025.38	N 32 9 52.66	W 103 57 34.07
	3727.00	0.07	188.30	3726.98	-0.14	-0.18	0.49	0.06	423827.39	657025.26	N 32 9 52.66	W 103 57 34.07
	3917.00	0.04	173.30	3916.98	-0.32	-0.36	0.49	0.02	423827.21	657025.26	N 32 9 52.66	W 103 57 34.07
	4107.00	0.06	277.93	4106.98	-0.38	-0.42	0.39	0.04	423827.15	657025.16	N 32 9 52.66	W 103 57 34.07
	4202.00	0.10	247.07	4201.98	-0.42	-0.44	0.27	0.06	423827.13	657025.04	N 32 9 52.66	W 103 57 34.07
	4297.00	0.07	250.86	4296.98	-0.47	-0.49	0.14	0.03	423827.08	657024.91	N 32 9 52.66	W 103 57 34.08
	4486.00	0.87	133.45	4485.98	-1.41	-1.50	1.07	0.48	423826.07	657025.83	N 32 9 52.65	W 103 57 34.06
	4581.00	1.96	94.19	4580.95	-1.85	-2.11	3.21	1.47	423825.46	657027.98	N 32 9 52.64	W 103 57 34.04
	4676.00	3.20	90.60	4675.85	-1.65	-2.26	7.48	1.32	423825.31	657032.25	N 32 9 52.64	W 103 57 33.99
	4771.00	3.10	88.64	4770.71	-1.10	-2.23	12.70	0.15	423825.34	657037.47	N 32 9 52.64	W 103 57 33.93
	4866.00	3.84	89.08	4865.53	-0.62	-2.12	18.45	0.78	423825.46	657043.22	N 32 9 52.64	W 103 57 33.86
	4961.00	5.00	89.33	4960.25	0.07	-2.02	25.77	1.22	423825.55	657050.54	N 32 9 52.64	W 103 57 33.78
	5150.00	8.52	80.35	5147.91	4.29	0.43	47.82	1.94	423828.00	657072.58	N 32 9 52.66	W 103 57 33.52
	5245.00	9.62	74.53	5241.72	8.76	3.73	62.40	1.51	423831.30	657087.17	N 32 9 52.69	W 103 57 33.35
	5340.00	10.25	68.68	5335.30	15.18	8.92	77.93	1.25	423836.49	657102.69	N 32 9 52.75	W 103 57 33.17
	5435.00	10.71	62.32	5428.72	23.60	16.09	93.62	1.31	423843.66	657118.38	N 32 9 52.82	W 103 57 32.99
	5625.00	12.33	55.05	5614.89	45.97	35.91	125.89	1.14	423863.48	657150.65	N 32 9 53.01	W 103 57 32.61
	5719.00	11.97	54.31	5706.79	58.67	47.35	142.03	0.42	423874.92	657166.79	N 32 9 53.12	W 103 57 32.42
	5903.00	13.34	59.45	5892.17	84.05	69.99	176.01	0.93	423897.55	657201.67	N 32 9 53.35	W 103 57 32.02
	6099.00	16.20	66.10	6075.89	109.35	91.87	220.03	1.75	423919.44	657244.76	N 32 9 53.56	W 103 57 31.51
	6289.00	17.64	70.27	6257.71	133.83	112.28	271.22	0.95	423939.84	657295.97	N 32 9 53.76	W 103 57 30.92
	6479.00	16.44	67.42	6439.42	157.93	132.27	322.99	0.73	423959.83	657347.74	N 32 9 53.96	W 103 57 30.31
	6574.00	17.08	64.34	6530.39	171.12	143.47	347.98	1.15	423971.03	657372.73	N 32 9 54.07	W 103 57 30.02
	6668.00	17.18	61.32	6620.23	185.70	156.11	372.59	0.95	423983.68	657397.33	N 32 9 54.19	W 103 57 29.74
	6858.00	16.74	58.07	6801.98	217.39	184.00	420.41	0.55	424011.59	657445.14	N 32 9 54.47	W 103 57 29.18
	6953.00	16.24	58.01	6893.07	233.47	198.30	443.28	0.53	424025.88	657468.02	N 32 0 54.61	W 103 57 28.91
	7048.00	16.95	58.99	6984.11	249.40	212.47	466.42	0.80	424040.03	657491.15	N 32 9 54.75	W 103 57 28.64
	7237.00	13.51	55.91	7166.45	279.34	239.05	508.33	1.87	424066.60	657533.06	N 32 9 55.01	W 103 57 28.15
	7427.00	11.32	48.95	7352.00	306.57	263.74	540.78	1.39	424091.29	657565.50	N 32 9 55.25	W 103 57 27.78
	7522.00	10.66	42.43	7445.27	320.19	276.35	553.74	1.48	424103.90	657578.46	N 32 9 55.38	W 103 57 27.62
	7616.00	8.87	40.59	7537.90	332.19	287.47	565.12	2.30	424115.01	657589.85	N 32 9 55.49	W 103 57 27.49
	7711.00	7.25	54.87	7631.96	341.20	295.66	575.60	1.87	424123.21	657600.33	N 32 9 55.57	W 103 57 27.37
	7806.00	6.47	52.64	7726.28	348.02	302.38	584.76	0.87	424129.91	657609.48	N 32 9 55.63	W 103 57 27.26
	7901.00	8.86	44.72	7820.64	356.54	309.64	593.01	1.05	424137.19	657617.73	N 32 9 55.70	W 103 57 27.17
	8091.00	9.17	42.60	8008.77	377.16	328.85	611.24	1.23	424156.39	657635.96	N 32 9 55.89	W 103 57 26.95
	8186.00	9.15	40.93	8102.56	389.22	340.13	621.31	0.28	424167.67	657646.03	N 32 9 56.00	W 103 57 26.84
	8295.00	8.13	45.78	8210.33	402.01	352.05	632.51	1.15	424179.60	657657.24	N 32 9 56.12	W 103 57 26.70

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 ° ' ")
	8473.00	15.60	49.84	8384.37	428.48	376.39	659.97	4.27	424200.93	657684.69	N 32 9 56.36	W 103 57 26.38
	8569.00	27.56	46.63	8473.46	454.22	400.10	686.13	12.42	424227.64	657710.85	N 32 9 56.60	W 103 57 26.08
	8664.00	39.28	46.12	8552.62	493.21	436.15	723.90	12.32	424263.69	657748.62	N 32 9 56.95	W 103 57 25.64
	8759.00	52.60	41.20	8618.57	546.29	485.62	770.65	14.52	424313.15	657795.36	N 32 9 57.44	W 103 57 25.09
	8853.00	58.84	28.44	8671.64	613.34	549.32	814.57	13.02	424378.85	657839.27	N 32 9 58.07	W 103 57 24.58
	8948.00	58.93	21.41	8720.77	689.65	623.01	848.81	6.34	424450.53	657873.51	N 32 9 58.80	W 103 57 24.18
	9043.00	57.79	22.34	8770.61	766.79	698.06	876.94	1.46	424525.58	657903.64	N 32 9 59.54	W 103 57 23.82
	9139.00	59.28	19.62	8820.72	845.36	774.51	903.23	2.87	424602.02	657932.93	N 32 10 0.29	W 103 57 23.48
	9234.00	70.47	12.93	8861.03	929.45	856.94	932.06	13.09	424684.45	657956.76	N 32 10 1.11	W 103 57 23.20
	9328.00	80.22	5.43	8884.82	1019.93	946.56	946.41	12.92	424774.06	657971.11	N 32 10 1.99	W 103 57 23.03
	9423.00	84.18	0.34	8897.72	1113.96	1040.51	951.12	6.75	424868.00	657975.82	N 32 10 2.92	W 103 57 22.97
	9460.00	84.21	0.51	8901.46	1150.07	1077.32	951.40	0.48	424904.81	657976.09	N 32 10 3.29	W 103 57 22.97
	9553.00	87.04	2.25	8908.55	1243.23	1170.01	953.03	3.57	424997.49	657978.33	N 32 10 4.20	W 103 57 22.94
	9648.00	89.20	3.50	8911.80	1338.13	1262.84	958.30	2.68	425090.31	657982.99	N 32 10 5.12	W 103 57 22.88
	9740.00	88.93	1.57	8913.14	1430.05	1356.73	962.45	2.07	425184.19	657987.15	N 32 10 6.05	W 103 57 22.83
	9833.00	89.03	0.11	8914.79	1522.83	1449.70	963.82	1.57	425277.16	657988.51	N 32 10 6.97	W 103 57 22.81
	9928.00	89.07	358.67	8916.34	1615.43	1542.66	962.83	1.55	425370.13	657987.52	N 32 10 7.89	W 103 57 22.81
	10020.00	89.27	356.94	8917.70	1708.75	1636.60	959.23	1.85	425464.04	657983.92	N 32 10 8.82	W 103 57 22.85
	10113.00	88.83	355.73	8919.24	1800.76	1729.39	953.28	1.38	425556.83	657977.98	N 32 10 9.74	W 103 57 22.92
	10207.00	89.24	354.91	8920.82	1893.51	1823.06	945.61	0.98	425650.49	657970.31	N 32 10 10.67	W 103 57 23.00
	10300.00	89.51	357.69	8921.84	1985.51	1915.86	939.61	3.00	425743.28	657964.31	N 32 10 11.59	W 103 57 23.07
	10393.00	89.72	359.12	8922.40	2077.95	2008.82	937.02	1.55	425836.23	657961.72	N 32 10 12.51	W 103 57 23.09
	10487.00	89.48	359.79	8923.12	2171.57	2102.81	936.13	0.76	425930.21	657960.83	N 32 10 13.44	W 103 57 23.10
	10580.00	90.06	358.42	8923.49	2264.13	2195.79	934.68	1.60	426023.18	657959.38	N 32 10 14.36	W 103 57 23.11
	10674.00	90.27	357.56	8923.22	2357.50	2289.73	931.38	0.94	426117.13	657956.08	N 32 10 15.29	W 103 57 23.15
	10767.00	89.44	358.53	8923.46	2449.88	2382.68	928.21	1.37	426210.06	657952.91	N 32 10 16.20	W 103 57 23.18
	10860.00	89.79	359.35	8924.08	2542.42	2475.66	926.49	0.98	426303.04	657951.19	N 32 10 17.13	W 103 57 23.20
	10954.00	89.62	359.28	8924.57	2636.01	2569.65	925.36	0.20	426397.02	657950.06	N 32 10 18.06	W 103 57 23.21
	11047.00	89.58	358.34	8925.21	2728.53	2662.63	923.43	1.01	426489.99	657948.13	N 32 10 18.98	W 103 57 23.23
	11142.00	89.51	356.79	8925.97	2822.80	2757.54	919.40	1.63	426584.89	657944.10	N 32 10 19.91	W 103 57 23.27
	11237.00	89.20	356.10	8927.04	2916.83	2852.35	913.51	0.80	426679.69	657938.21	N 32 10 20.85	W 103 57 23.33
	11332.00	89.44	356.48	8928.17	3010.82	2947.14	907.36	0.47	426774.48	657932.06	N 32 10 21.79	W 103 57 23.40
	11427.00	89.03	355.62	8929.43	3104.74	3041.91	900.82	1.00	426869.24	657925.52	N 32 10 22.73	W 103 57 23.47
	11522.00	89.27	355.56	8930.84	3198.65	3136.61	893.51	0.26	426963.94	657918.21	N 32 10 23.67	W 103 57 23.55
	11617.00	89.17	357.98	8932.14	3292.64	3231.45	888.16	2.55	427058.77	657912.86	N 32 10 24.61	W 103 57 23.61
	11712.00	89.86	0.99	8932.94	3387.24	3326.43	887.31	3.25	427153.74	657912.01	N 32 10 25.54	W 103 57 23.62
	11807.00	89.65	3.27	8933.35	3482.15	3421.35	890.84	2.41	427248.66	657915.54	N 32 10 26.48	W 103 57 23.57
	11902.00	89.82	2.91	8933.79	3577.11	3516.22	895.96	0.42	427343.51	657920.66	N 32 10 27.42	W 103 57 23.51
	11997.00	90.10	2.84	8933.85	3672.08	3611.10	900.72	0.30	427438.39	657925.42	N 32 10 28.36	W 103 57 23.45
	12092.00	90.20	1.83	8933.60	3766.99	3706.02	904.59	1.07	427533.30	657929.29	N 32 10 29.30	W 103 57 23.40
	12187.00	89.27	0.05	8934.04	3861.78	3801.00	906.15	2.11	427628.27	657930.85	N 32 10 30.24	W 103 57 23.38
	12282.00	90.13	359.08	8934.54	3956.41	3895.99	905.43	1.36	427723.26	657930.13	N 32 10 31.18	W 103 57 23.39
	12377.00	89.89	358.74	8934.53	4050.93	3990.97	903.82	0.44	427818.23	657928.52	N 32 10 32.12	W 103 57 23.40
	12472.00	90.34	358.50	8934.33	4145.41	4085.95	901.34	0.54	427913.20	657926.04	N 32 10 33.06	W 103 57 23.43
	12567.00	89.31	359.38	8934.62	4239.94	4180.93	899.58	1.43	428008.17	657924.28	N 32 10 34.00	W 103 57 23.44
	12662.00	90.27	359.52	8934.97	4334.56	4275.92	898.67	1.02	428103.16	657923.37	N 32 10 34.94	W 103 57 23.45
	12757.00	90.03	358.99	8934.72	4429.13	4370.91	897.43	0.61	428198.14	657922.13	N 32 10 35.88	W 103 57 23.46
	12852.00	89.79	359.16	8934.87	4523.68	4465.90	896.90	0.31	428293.12	657920.60	N 32 10 36.82	W 103 57 23.47
	12947.00	89.14	358.75	8935.78	4618.21	4560.88	894.17	0.81	428388.09	657918.87	N 32 10 37.76	W 103 57 23.49
	13042.00	90.51	359.51	8936.05	4712.77	4655.86	892.72	1.65	428483.07	657917.42	N 32 10 38.70	W 103 57 23.50
	13137.00	90.13	358.83	8935.52	4807.34	4750.85	891.35	0.82	428578.05	657916.05	N 32 10 39.64	W 103 57 23.51
	13232.00	89.51	357.80	8935.82	4901.76	4845.81	888.55	1.27	428673.00	657913.25	N 32 10 40.58	W 103 57 23.54
	13327.00	89.86	358.15	8936.34	4996.11	4940.75	885.20	0.52	428767.93	657909.90	N 32 10 41.52	W 103 57 23.58
	13422.00	89.75	357.57	8936.68	5090.45	5035.68	881.65	0.62	428862.86	657906.35	N 32 10 42.46	W 103 57 23.62
	13517.00	89.14	358.63	8937.58	5184.83	5130.62	878.50	1.29	428957.79	657903.20	N 32 10 43.40	W 103 57 23.65
	13611.00	90.06	358.76	8938.24	5278.32	5224.59	876.36	0.99	429051.76	657901.06	N 32 10 44.33	W 103 57 23.67
	13707.00	90.13	359.17	8938.08	5373.85	5320.58	874.63	0.43	429147.74	657899.33	N 32 10 45.28	W 103 57 23.69
	13802.00	90.34	0.68	8937.69	5468.52	5415.57	874.50	1.60	429242.72	657899.20	N 32 10 46.22	W 103 57 23.68
	13897.00	90.51	1.44	8936.99	5563.34	5510.55	876.20	0.82	429337.70	657900.98	N 32 10 47.16	W 103 57 23.66
	13992.00	90.61	1.52	8936.08	5658.10	5605.52	878.71	0.13	429432.65	657903.41	N 32 10 48.10	W 103 57 23.63
	14087.00	89.96	1.33	8935.59	5753.04	5700.49	881.07	0.71	429527.61	657905.78	N 32 10 49.04	W 103 57 23.60
	14182.00	90.17	1.84	8935.48	5847.90	5795.45	883.70	0.58	429622.57	657908.40	N 32 10 49.98	W 103 57 23.56
	14278.00	89.96	2.02	8935.37	5941.80	5889.40	886.67	0.29	429716.51	657911.37	N 32 10 50.91	W 103 57 23.52
	14371.00	90.65	1.52	8934.87	6036.68	5984.35	889.80	0.90	429811.46	657914.50	N 32 10 51.85	W 103 57 23.48
	14466.00	90.24	0.32	8934.13	6131.47	6079.33	891.33	1.33	429906.43	657916.03	N 32 10 52.79	W 103 57 23.46
	14561.00	90.03	359.17	8933.90	6226.12	6174.33	890.90	1.23	430001.42	657915.61	N 32 10 53.73	W 103 57 23.46
	14656.00	89.93	358.05	8933.94	6320.60	6269.30	888.60	1.18	430096.38	657913.30	N 32 10 54.67	W 103 57 23.48
	14751.00	89.65	357.29	8934.29	6414.90	6364.22	884.74	0.85	430191.30	657909.44	N 32 10 55.60	W 103 57 23.53
	14846.00	89.75	356.90	8934.78	6509.07	6459.10	879.92	0.42	430286.17	657904.62	N 32 10 56.54	W 103 57 23.58
	14941.00	89.55	356.30	8935.36	6603.14	6553.93	874.29	0.67	430380.99	657898.99	N 32 10 57.48	W 103 57 23.64
	15036.00	89.72	356.17	8935.97	6697.12	6648.72	868.05	0.23	430476.77	657892.75	N 32 10 58.42	W 103 57 23.71
	15131.00	89.24	355.51	8936.83	6791.00	6743.47	861.16	0.86	430570.51	657885.86	N 32 10 59.36	W 103 57 23.78
	15226.00	89.55	359.02	8937.83	6885.19	6838.34	856.63	3.71	430665.38	657881.33	N 32 11 0.30	W 103 57 23.83
	15321.00	89.82	1.95	8938.36	6979.93	6933.32	857.43	3.10	430760.35	657882.14	N 32 11 1.24	W 103 57 23.82
	15416.00	90.24	2.78	8938.31	7074.86	7028.24	861.35	0.98	430855.26	657886.06	N 32 11 2.18	W 103 57 23.77
	15511.00	90.30	1.96	8937.88	7169.78	7123.16	865.26	0.87	430950.17	657889.98	N 32 11 3.11	W 103 57 23.72
	15607.00	90.03	0.37	8937.58	7265.60	7219.13	867.23	1.68	431046.14	657891.94	N 32 11 4.06	W 103 57 23.69
	15701.00	89.24	359.20	8938.18	7359.26	7313.13	866.88	1.50	431140.13	657891.58	N 32 11 4.99	W 103 57 23.69
	15796.00	89.72	358.87	8939.04	7453.80	7408.11	865.28	0.61	431235.11	657889.98	N 32 11 5.93	W 103 57 23.71
	15891.00	89.41	0.17	8939.76	7548.42	7503.10	864.48	1.41	431330.09	657889.19	N 32 11 6.87	W 103 57 23.71
	15986.00	90.10	1.30	8940.17	7643.20	7598.09	865.70	1.39	431425.07	657890.41	N 32 11 7.81	W 103 57 23.70
	16081.00	89.75	2.55	8940.30	7738.09	7693.04	868.89	1.37	431520.01	657893.60	N 32 11 8.75	W 103 57 23.66
	16176.00	89.93	3.03	8940.56	7833.04	7787.92	873.52	0.54	431614.89	657898.22	N 32 11 9.69	W 103 57 23.60
	16271.00	89.82	3.90	8940.77	7928.02	7882.75	879.26	0.92	431709.71	657903.96	N 32 11 10.63	W 103 57 23.53
	16366.00	89.99	4.58	8940.93	8023.01	7977.49	886.28	0.74	431804.44	657910.98	N 32 11 11.57	W 103 57 23.44
	16461.00	89.72	4.18	8941.17	8118.01	8072.21	893.54	0.51	431899.15	657918.24	N 32 11 12.50	W 103 57 23.35
	16556.00	90.13	3.09	8941.29	8213.00	8167.02	899.58	1.23	431993.95	657924.26	N 32 11 13.44	W 103 57 23.28
	16651.00	90.41	1.66	8940.84	8307.92	8261.93	903.50	1.53	432088.88	657928.20	N 32 11 14.38	W 103 57 23.23
	16746.00	90.13	358.60	8940.39	8402.61	8356.92	903.71	3.23	432183.84	657928.41	N 32 11 15.32	W 103 57 23.22
	16841.00	90.24	355.70	8940.09	8496.79	8451.79	898.99	3.05	432278.70	657923.69	N 32 11 16.26	W 103 57 23.27
	16936.00	90.20	356.14	8939.72	8590.69	8546.55	892.23	0.47	432373.45	657916.93	N 32 11 17.20	W 103 57 23.35
	17031.00	89.44	352.93	8940.02	8684.21	8641.10	883.19	3.47	432468.00	657907.89	N 32 11 18.13	W 103 57 23.45
	17126.00	89.69	353.53	8940.74	8777.33	8735.44	871.99	0.68	432562.33	657896.69	N 32 11 19.07	W 103 57 23.58
	17221.00	89.20	354.50	8941.66	8870.70	8829.91	862.08	1.14	432656.80	657886.78	N 32 11 20.00	W 103 67 23.69
	17316.00	89.31	356.22	8942.90	8964.44	8924.59	854.40	1.81	432751.47	657879.10	N 32 11 20.94	W 103 57 23.77
	17411.00	89.55	2.19	8943.84	9058.97	9019.53	853.08	6.29	432846.40	657877.78	N 32 11 21.88	W 103 57 23.79
	17506.00	88.89	3.45	8945.14	9153.91	9114.41	857.75	1.50	432941.27	657882.46	N 32 11 22.82	W 103 57 23.73
	17601.00	90.27	1.64	8945.83	9248.84	9209.30	861.97	2.40	433036.16	657886.67	N 32 11 23.76	W 103 57 23.67
	17696.00	89.27	359.31	8946.22	9343.58	9304.29	862.76	2.67	433131.14	657887.46	N 32 11 24.70	W 103 57 23.66
	17791.00	89.93	358.71	8946.88	9438.12	9399.28	861.12	0.94	433226.12	657885.82	N 32 11 25.64	W 103 57 23.68
	17886.00	89.55	0.71	8947.31	9532.78	9494.27	860.64	2.14	433321.10	657885.34	N 32 11 26.58	W 103 57 23.68

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 ° ' ")
	17980.00	89.72	3.63	8947.91	9628.67	9588.19	864.20	3.11	433415.01	657888.90	N 32 11 27.51	W 103 57 23.63
	18171.00	89.65	7.77	8948.98	9817.59	9778.20	883.16	2.17	433605.01	657907.86	N 32 11 29.39	W 103 57 23.40
	18266.00	90.24	7.44	8949.05	9912.46	9872.36	895.73	0.71	433699.17	657920.43	N 32 11 30.32	W 103 57 23.25
	18360.00	90.10	4.93	8948.77	10006.42	9965.81	905.86	2.67	433792.61	657930.56	N 32 11 31.24	W 103 57 23.13
	18455.00	90.10	1.11	8948.61	10101.38	10060.66	910.86	4.02	433887.45	657935.56	N 32 11 32.18	W 103 57 23.07
	18551.00	90.13	355.20	8948.41	10196.71	10156.57	907.77	6.16	433983.35	657932.47	N 32 11 33.13	W 103 57 23.10
	18646.00	89.72	354.76	8948.54	10290.36	10251.20	899.48	0.63	434077.98	657924.18	N 32 11 34.07	W 103 57 23.20
	18740.00	90.89	356.85	8948.04	10383.24	10344.94	892.59	2.55	434171.71	657917.29	N 32 11 34.99	W 103 57 23.27
	18835.00	89.58	357.98	8947.65	10477.48	10439.84	888.30	1.82	434266.60	657913.00	N 32 11 35.93	W 103 57 23.32
	18931.00	89.82	0.11	8948.15	10573.02	10535.82	888.70	2.23	434362.57	657911.40	N 32 11 36.88	W 103 57 23.33
	19025.00	89.79	1.99	8948.47	10666.83	10629.80	888.42	2.00	434456.55	657913.13	N 32 11 37.81	W 103 57 23.31
	19120.00	90.03	2.39	8948.62	10761.74	10724.73	892.05	0.49	434551.47	657916.78	N 32 11 38.75	W 103 57 23.26
	19216.00	90.13	2.46	8948.48	10857.67	10820.64	896.12	0.13	434647.37	657920.82	N 32 11 39.70	W 103 57 23.21
	19311.00	89.58	2.33	8948.73	10952.60	10915.58	900.09	0.59	434742.28	657924.79	N 32 11 40.64	W 103 57 23.16
	19406.00	89.93	1.77	8949.13	11047.50	11010.50	903.48	0.70	434837.21	657928.18	N 32 11 41.58	W 103 57 23.12
Final MWD Survey	19431.00	89.86	1.51	8949.18	11072.48	11035.49	904.20	1.08	434862.20	657928.90	N 32 11 41.83	W 103 57 23.11
Proj to Bit	19480.00	89.86	1.51	8949.30	11121.39	11084.47	905.49	0.00	434911.18	657930.19	N 32 11 42.31	W 103 57 23.09

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 Corral Fly 35-26 Federal Com 23H Gyro+MWD 0-19,480'
	1	26.500	26.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 35-26 Federal Com 23H Gyro+MWD 0-19,480'
	1	26.500	397.500	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Corral Fly 35-26 Federal Com 23H
	1	397.500	19480.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Corral Fly 35-26 Federal Com 23H