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Schlumberger

Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD Survey Geodetic Report (Def Survey)

30-015-44589



NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 09 2018

RECEIVED

Report Date: August 30, 2018 - 01:00 PM
Client: OXY
Field: NMI Eddy County (NAD 83)
Structure / Blot: Oxy Corral Fly 02-01 State 35H / Corral Fly 02-01 State 35H
Well: Corral Fly 02-01 State 35H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
Survey Date: August 14, 2018
Tort / AHD / DD1 / ERD Ratio: 209.674' / 10503.239 R / 5.633 / 1.013
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 8' 19.35284" W 103° 57' 48.62735"
Location Grid N/E V/X: N 420458.150 HUS, E 855957.590 HUS
CRB Grid Convergence Angle: 0.1971°
Grid Scale Factor: 0.99992414
Version / Patch: 2.10.740.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 89.538° (Grid North)
Vertical Section Origin: 0.000 h, 0.000 n
TVD Reference Datum: RKB=26.5'
TVD Reference Elevation: 3059.200 n above MSL
Seabed / Ground Elevation: 3032.700 n above MSL
Magnetic Declination: 6.977°
Total Gravity Field Strength: 968.454mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47903.348 nT
Magnetic Dip Angle: 59.902°
Declination Date: August 14, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.1971°
Total Corr Map North-Grid North: 6.7796°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
RKB SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	420458.15	855957.59	N 32° 8' 19.35" W 103° 57' 48.63"	
	26.50	0.00	0.00	26.50	0.00	0.00	0.00	0.00	420458.15	855957.59	N 32° 8' 19.35" W 103° 57' 48.63"	
	97.60	0.07	51.98	97.60	0.03	0.03	0.03	0.10	420458.18	855957.62	N 32° 8' 19.35" W 103° 57' 48.63"	
Last Gyro	189.50	0.24	87.54	189.50	0.27	0.07	0.27	0.20	420458.22	855957.66	N 32° 8' 19.35" W 103° 57' 48.62"	
	276.50	0.03	256.60	276.50	0.43	0.07	0.43	0.31	420458.22	855958.02	N 32° 8' 19.35" W 103° 57' 48.62"	
	307.50	0.34	119.30	307.50	0.50	0.03	0.50	1.17	420458.18	855958.09	N 32° 8' 19.35" W 103° 57' 48.62"	
	374.50	0.02	21.18	374.50	0.88	-0.06	0.88	0.51	420458.09	855958.27	N 32° 8' 19.35" W 103° 57' 48.62"	
	504.00	0.25	328.30	504.00	0.54	0.20	0.54	0.18	420458.35	855958.13	N 32° 8' 19.35" W 103° 57' 48.62"	
	686.00	0.13	126.30	686.00	0.50	0.42	0.50	0.21	420458.57	855958.09	N 32° 8' 19.36" W 103° 57' 48.62"	
	867.00	0.08	128.18	867.00	0.74	0.24	0.74	0.04	420458.39	855958.33	N 32° 8' 19.36" W 103° 57' 48.62"	
	958.00	0.11	185.02	958.00	0.77	0.12	0.77	0.10	420458.27	855958.36	N 32° 8' 19.36" W 103° 57' 48.62"	
	1140.00	0.08	153.10	1140.00	0.79	-0.14	0.80	0.04	420458.01	855958.38	N 32° 8' 19.35" W 103° 57' 48.62"	
	1230.00	0.08	350.42	1230.00	0.82	-0.13	0.82	0.13	420458.02	855958.41	N 32° 8' 19.35" W 103° 57' 48.62"	
	1318.00	0.11	353.08	1318.00	0.81	0.00	0.81	0.06	420458.15	855958.40	N 32° 8' 19.35" W 103° 57' 48.62"	
	1407.00	0.08	182.98	1407.00	0.79	0.02	0.79	0.21	420458.17	855958.38	N 32° 8' 19.35" W 103° 57' 48.62"	
	1497.00	0.08	180.48	1497.00	0.79	-0.11	0.79	0.00	420458.04	855958.38	N 32° 8' 19.35" W 103° 57' 48.62"	
	1592.00	0.06	39.83	1592.00	0.82	0.14	0.82	0.14	420458.01	855958.41	N 32° 8' 19.35" W 103° 57' 48.62"	
	1687.00	0.13	322.01	1687.00	0.79	-0.01	0.79	0.14	420458.14	855958.38	N 32° 8' 19.35" W 103° 57' 48.62"	
	1782.00	0.06	53.69	1782.00	0.78	0.10	0.78	0.15	420458.25	855958.35	N 32° 8' 19.35" W 103° 57' 48.62"	
	1877.00	0.08	93.00	1877.00	0.87	0.13	0.87	0.05	420458.28	855958.48	N 32° 8' 19.35" W 103° 57' 48.62"	
	1972.00	0.06	218.27	1972.00	0.90	0.08	0.90	0.13	420458.23	855958.49	N 32° 8' 19.35" W 103° 57' 48.62"	
	2067.00	0.06	333.43	2067.00	0.85	0.09	0.85	0.11	420458.24	855958.44	N 32° 8' 19.35" W 103° 57' 48.62"	
	2162.00	0.08	297.42	2162.00	0.79	0.16	0.78	0.04	420458.31	855958.37	N 32° 8' 19.35" W 103° 57' 48.62"	
	2257.00	0.06	134.50	2257.00	0.78	0.14	0.78	0.12	420458.29	855958.37	N 32° 8' 19.35" W 103° 57' 48.62"	
	2352.00	0.06	189.23	2352.00	0.80	0.08	0.80	0.08	420458.21	855958.39	N 32° 8' 19.35" W 103° 57' 48.62"	
	2448.00	0.08	289.90	2448.00	0.75	0.03	0.75	0.10	420458.18	855958.34	N 32° 8' 19.35" W 103° 57' 48.62"	
	2541.00	0.11	235.14	2541.00	0.83	-0.01	0.83	0.09	420458.14	855958.22	N 32° 8' 19.35" W 103° 57' 48.62"	
	2731.00	0.11	151.94	2731.00	0.56	-0.27	0.56	0.08	420457.88	855958.15	N 32° 8' 19.35" W 103° 57' 48.62"	
	2921.00	0.11	189.25	2921.00	0.88	-0.61	0.68	0.02	420457.54	855958.27	N 32° 8' 19.35" W 103° 57' 48.62"	
	3018.00	0.06	202.99	3018.00	0.87	-0.75	0.68	0.07	420457.40	855958.27	N 32° 8' 19.35" W 103° 57' 48.62"	
3111.00	0.11	248.99	3111.00	0.57	-0.83	0.58	0.09	420457.32	855958.17	N 32° 8' 19.34" W 103° 57' 48.62"		
3301.00	0.08	158.04	3301.00	0.44	-0.88	0.44	0.07	420457.17	855958.03	N 32° 8' 19.34" W 103° 57' 48.62"		
3398.00	0.06	345.84	3398.00	0.44	-0.88	0.45	0.13	420457.17	855958.04	N 32° 8' 19.34" W 103° 57' 48.62"		
3585.00	0.08	229.13	3585.00	0.34	-0.95	0.35	0.05	420457.20	855957.94	N 32° 8' 19.34" W 103° 57' 48.62"		
3680.00	0.06	54.18	3680.00	0.35	-0.95	0.35	0.13	420457.20	855957.94	N 32° 8' 19.34" W 103° 57' 48.62"		
3774.00	0.08	110.83	3774.00	0.43	-0.94	0.44	0.06	420457.21	855958.03	N 32° 8' 19.34" W 103° 57' 48.62"		
3964.00	0.06	99.49	3964.00	0.82	-0.99	0.83	0.01	420457.16	855958.22	N 32° 8' 19.34" W 103° 57' 48.62"		
4059.00	0.11	58.90	4059.00	0.75	-0.95	0.78	0.08	420457.20	855958.35	N 32° 8' 19.34" W 103° 57' 48.62"		
4154.00	0.06	206.04	4154.00	0.78	-0.88	0.79	0.16	420457.27	855958.38	N 32° 8' 19.34" W 103° 57' 48.62"		
4249.00	0.08	114.72	4249.00	0.80	-0.89	0.80	0.15	420457.26	855958.39	N 32° 8' 19.34" W 103° 57' 48.62"		
4339.00	0.06	47.51	4339.00	0.99	-0.87	1.00	0.04	420457.28	855958.50	N 32° 8' 19.34" W 103° 57' 48.62"		
4533.00	0.08	149.41	4533.00	1.05	-0.85	1.06	0.10	420457.27	855958.65	N 32° 8' 19.34" W 103° 57' 48.62"		
4628.00	0.06	338.67	4628.00	1.08	-0.88	1.08	0.13	420457.27	855958.65	N 32° 8' 19.34" W 103° 57' 48.62"		
4818.00	0.08	334.89	4817.99	0.98	-0.70	0.98	0.00	420457.45	855958.57	N 32° 8' 19.35" W 103° 57' 48.62"		
4913.00	0.06	334.05	4912.99	0.93	-0.81	0.94	0.00	420457.54	855958.53	N 32° 8' 19.35" W 103° 57' 48.62"		
5008.00	0.06	150.57	5007.99	0.94	-0.81	0.94	0.13	420457.54	855958.53	N 32° 8' 19.35" W 103° 57' 48.62"		
5103.00	0.06	31.42	5102.99	0.99	-0.81	0.99	0.11	420457.54	855958.58	N 32° 8' 19.35" W 103° 57' 48.62"		
5198.00	0.08	198.66	5197.99	1.00	-0.81	1.00	0.13	420457.54	855958.59	N 32° 8' 19.35" W 103° 57' 48.62"		
5292.00	0.09	302.25	5291.99	0.93	-0.83	0.93	0.12	420457.52	855958.52	N 32° 8' 19.35" W 103° 57' 48.62"		
5387.00	0.11	279.08	5386.99	0.78	-0.58	0.79	0.05	420457.57	855958.38	N 32° 8' 19.35" W 103° 57' 48.62"		
5482.00	0.06	253.86	5481.99	0.64	-0.57	0.65	0.06	420457.59	855958.24	N 32° 8' 19.35" W 103° 57' 48.62"		
5671.00	0.06	16.47	5670.99	0.58	-0.51	0.58	0.00	420457.64	855958.17	N 32° 8' 19.35" W 103° 57' 48.62"		
5766.00	0.06	117.88	5765.99	0.83	-0.48	0.84	0.10	420457.67	855958.23	N 32° 8' 19.35" W 103° 57' 48.62"		
5958.00	0.11	340.67	5957.99	0.68	-0.35	0.67	0.08	420457.79	855958.26	N 32° 8' 19.35" W 103° 57' 48.62"		
6050.00	0.08	241.48	6049.99	0.59	-0.30	0.59	0.14	420457.85	855958.18	N 32° 8' 19.35" W 103° 57' 48.62"		
6145.00	0.06	25.74	6144.99	0.57	-0.27	0.57	0.12	420457.88	855958.16	N 32° 8' 19.35" W 103° 57' 48.62"		
6240.00	0.08	181.87	6239.99	0.59	-0.28	0.59	0.12	420457.87	855958.18	N 32° 8' 19.35" W 103° 57' 48.62"		
6335.00	0.06	208.90	6334.99	0.56	-0.37	0.57	0.03	420457.78	855958.10	N 32° 8' 19.35" W 103° 57' 48.62"		
6430.00	0.08	175.88	6429.99	0.54	-0.48	0.55	0.05	420457.67	855958.14	N 32° 8' 19.35" W 103° 57' 48.62"		
6520.00	0.06	38.45	6519.99	0.61	-0.54	0.62	0.07	420457.81	855958.21	N 32° 8' 19.35" W 103° 57' 48.62"		
6715.00	0.13	108.06	6714.99	0.75	-0.53	0.75	0.13	420457.82	855958.34	N 32° 8' 19.35" W 103° 57' 48.62"		
6810.00	0.09	327.44	6809.99	0.81	-0.50	0.81	0.22	420457.65	855958.40	N 32° 8' 19.35" W 103° 57' 48.62"		
6905.00	0.11	48.48	6904.99	0.84	-0.38	0.84	0.14	420457.77	855958.43	N 32° 8' 19.35" W 103° 57' 48.62"		
7000.00	0.22	105.64	6999.99	1.08	-0.37	1.09	0.19	420457.78	855958.68	N 32° 8' 19.35" W 103° 57' 48.61"		
7094.00	1.17	218.99	7093.99	0.87	-1.18	0.68	1.35	420456.97	855958.27	N 32° 8' 19.34" W 103° 57' 48.62"		
7189.00	1.99	234.94	7188.95	-1.28	-2.90	-1.25	1.00	420455.25	855958.34	N 32° 8' 19.32" W 103° 57' 48.64"		
7284.00	2.60	239.67	7283.87	-4.50	-4.94	-4.48	0.87	420453.21	855953.13	N 32° 8' 19.30" W 103° 57' 48.68"		
7379.00	2.06	267.58	7378.80	-8.08	-6.10	-8.03	1.30	420452.05	855949.50	N 32° 8' 19.29" W 103° 57' 48.72"		
7474.00	3.43	241.81	7473.69	-12.30	-7.52	-12.24	1.91	420450.84	855945.35	N 32° 8' 19.28" W 103° 57' 48.77"		
7569.00	3.47	250.41	7568.32	-17.53	-8.82	-17.45	0.55	420448.33	855940.14	N 32° 8' 19.28" W 103° 57' 48.83"		
7664.00	3.51	264.96	7663.34	-23.15	-10.81	-23.08	0.93	420447.11	855934.53	N 32° 8' 19.24" W 103° 57' 48.90"		
7759.00	2.68	282.58	7758.21	-28.21	-10.81	-28.12	1.32	420446.11	855929.47	N 32° 8' 19.23" W 103° 57' 48.95		
7854.00	3.32	291.73	7853.08	-35.92	-8.48	-32.05	0.93	420444.88	855924.73	N 32° 8' 19.26" W 103° 57' 47.01"		
7949.00	4.36	290.85	7947.86	-38.53	-8.48	-38.53	1.45	420443.88	855919.88	N 32° 8' 19.29" W 103° 57' 47.08"		
8044.00	4.73	298.67	8042.49	-45.84	-2.42	-45.83	0.84	420445.73	855911.77	N 32° 8' 19.33" W 103° 57' 47.18"		
8139.00	5.88	294.85	8137.01	-54.39	1.90	-54.40	0.44	420460.05	855903.18	N 32° 8' 19.37" W 103° 57' 47.26"		
8234.00	6.18	291.12	8231.48	-63.55	5.78	-63.60	0.53	420463.94	855894.0			

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
	8519.00	3.99	273.07	8515.35	-88.40	8.88	-88.47	0.89	420487.13	655869.12	N 32° 9' 10.44" W	103° 57' 47.68"
	8614.00	5.05	280.44	8610.08	-95.83	8.48	-93.90	1.52	420486.81	655861.70	N 32° 9' 10.44" W	103° 57' 47.74"
	8708.00	7.06	258.55	8703.53	-105.58	8.83	-105.64	2.15	420484.78	655851.98	N 32° 9' 10.42" W	103° 57' 47.86"
	8803.00	8.04	258.81	8797.70	-117.84	4.16	-117.88	1.03	420482.31	655839.72	N 32° 9' 10.40" W	103° 57' 48.00"
	8898.00	7.46	259.83	8891.84	-130.44	1.79	-130.46	0.63	420459.91	655827.14	N 32° 9' 10.37" W	103° 57' 48.14"
	8992.00	4.37	252.89	8985.32	-129.89	-0.37	-129.89	3.37	420437.78	655817.71	N 32° 9' 10.35" W	103° 57' 48.23"
	9087.00	2.82	208.12	9080.16	-144.40	-3.30	-144.37	3.28	420434.79	655815.23	N 32° 9' 10.32" W	103° 57' 48.31"
	9182.00	2.11	172.76	9175.08	-145.23	-7.01	-145.18	1.80	420431.14	655812.42	N 32° 9' 10.29" W	103° 57' 48.32"
	9277.00	2.16	144.71	9270.02	-143.99	-10.22	-143.91	1.10	420427.84	655813.69	N 32° 9' 10.26" W	103° 57' 48.30"
	9372.00	2.94	118.79	9364.93	-140.83	-12.66	-140.73	1.44	420425.29	655816.87	N 32° 9' 10.23" W	103° 57' 48.28"
	9443.00	3.93	89.41	9435.80	-136.84	-14.10	-136.73	2.19	420444.05	655820.87	N 32° 9' 10.22" W	103° 57' 48.22"
	9487.00	4.21	95.84	9459.74	-135.15	-14.31	-135.04	1.39	420443.84	655822.56	N 32° 9' 10.22" W	103° 57' 48.20"
	9549.00	5.63	86.34	9541.44	-128.14	-14.38	-128.03	1.89	420443.80	655829.57	N 32° 9' 10.22" W	103° 57' 48.12"
	9703.00	11.22	77.45	9693.72	-105.93	-10.62	-105.85	3.72	420447.54	655831.75	N 32° 9' 10.25" W	103° 57' 47.86"
	9798.00	24.80	84.70	9783.87	-76.90	-6.75	-76.85	14.48	420451.40	655880.74	N 32° 9' 10.29" W	103° 57' 47.52"
	9893.00	35.08	84.12	9868.09	-29.76	-2.10	-29.74	10.80	420456.05	655927.85	N 32° 9' 10.33" W	103° 57' 46.97"
	9987.00	42.86	85.65	9939.07	-29.17	3.10	-29.14	8.47	420461.25	655986.75	N 32° 9' 10.38" W	103° 57' 46.29"
	10082.00	48.01	85.04	10005.85	-98.70	6.82	-98.64	5.34	420468.78	656034.22	N 32° 9' 10.43" W	103° 57' 45.50"
	10087.00	48.27	85.03	10000.99	-100.42	8.94	-100.35	5.24	420467.09	656007.93	N 32° 9' 10.44" W	103° 57' 45.48"
	10178.00	53.04	84.83	10068.87	-170.54	15.16	-170.43	5.24	420473.31	656128.00	N 32° 9' 10.50" W	103° 57' 44.84"
	10273.00	58.81	90.43	10120.04	-249.02	18.28	-248.88	7.82	420478.43	656208.45	N 32° 9' 10.53" W	103° 57' 43.73"
	10368.00	65.52	88.85	10164.52	-332.89	18.64	-332.75	7.42	420478.99	656299.32	N 32° 9' 10.53" W	103° 57' 42.78"
	10411.86	67.25	88.01	10182.09	-373.07	19.95	-372.92	4.31	420478.10	656330.48	N 32° 9' 10.54" W	103° 57' 42.26"
	10483.00	69.27	87.08	10201.03	-420.94	21.99	-420.38	4.31	420480.14	656377.94	N 32° 9' 10.58" W	103° 57' 41.74"
	10558.00	79.09	93.67	10228.92	-511.78	21.28	-511.61	12.31	420476.43	656486.16	N 32° 9' 10.55" W	103° 57' 40.68"
	10632.00	87.85	94.91	10237.60	-604.74	14.28	-604.64	9.41	420472.44	656502.19	N 32° 9' 10.47" W	103° 57' 39.59"
	10712.00	89.86	92.87	10238.79	-684.55	10.33	-684.49	4.80	420468.37	656622.02	N 32° 9' 10.43" W	103° 57' 38.90"
	10767.00	89.88	90.53	10239.01	-719.50	8.59	-719.46	4.27	420466.74	656678.99	N 32° 9' 10.41" W	103° 57' 38.28"
	10862.00	90.52	89.04	10238.68	-814.50	8.95	-814.45	1.81	420487.10	656771.88	N 32° 9' 10.41" W	103° 57' 37.15"
	10957.00	90.11	88.64	10238.34	-869.49	10.87	-869.43	0.60	420486.02	656866.95	N 32° 9' 10.43" W	103° 57' 36.05"
	11052.00	89.59	88.82	10238.59	-1004.48	13.15	-1004.40	0.55	420471.29	656961.92	N 32° 9' 10.45" W	103° 57' 34.94"
	11147.00	89.87	88.47	10239.04	-1099.46	15.56	-1099.37	0.33	420473.71	657056.88	N 32° 9' 10.47" W	103° 57' 33.84"
	11241.00	90.11	88.41	10239.05	-1193.45	18.12	-1193.34	0.26	420478.26	657150.84	N 32° 9' 10.49" W	103° 57' 32.75"
	11338.00	90.42	88.65	10238.61	-1288.43	20.55	-1288.31	0.41	420478.70	657245.80	N 32° 9' 10.51" W	103° 57' 31.64"
	11431.00	90.48	88.75	10237.87	-1383.42	22.71	-1383.28	0.12	420480.86	657340.78	N 32° 9' 10.53" W	103° 57' 30.54"
	11526.00	91.38	88.78	10236.33	-1478.39	24.77	-1478.24	0.95	420482.82	657435.72	N 32° 9' 10.55" W	103° 57' 29.43"
	11621.00	91.10	88.17	10234.27	-1573.35	27.32	-1573.19	0.89	420485.46	657530.65	N 32° 9' 10.57" W	103° 57' 28.33"
	11717.00	90.66	88.43	10232.80	-1668.32	30.16	-1668.13	0.53	420488.31	657628.59	N 32° 9' 10.59" W	103° 57' 27.21"
	11812.00	88.80	87.69	10233.24	-1764.28	33.38	-1764.07	2.11	420491.53	657721.52	N 32° 9' 10.62" W	103° 57' 26.11"
	11907.00	90.21	88.33	10234.08	-1859.24	36.68	-1859.01	1.63	420494.83	657816.45	N 32° 9' 10.65" W	103° 57' 25.00"
	12002.00	89.90	88.23	10233.97	-1954.22	39.93	-1953.96	0.34	420497.88	657911.40	N 32° 9' 10.68" W	103° 57' 23.90"
	12097.00	88.78	88.08	10233.08	-2049.18	42.80	-2048.91	1.21	420500.75	658006.34	N 32° 9' 10.70" W	103° 57' 22.79"
	12192.00	88.63	88.54	10232.25	-2144.15	44.58	-2143.88	1.56	420502.74	658101.28	N 32° 9' 10.72" W	103° 57' 21.68"
	12287.00	90.35	90.39	10238.09	-2239.14	44.85	-2238.85	2.02	420502.80	658196.27	N 32° 9' 10.72" W	103° 57' 20.58"
	12382.00	89.80	90.30	10237.87	-2334.13	44.08	-2333.85	0.58	420502.23	658291.26	N 32° 9' 10.71" W	103° 57' 19.48"
	12477.00	89.21	90.30	10238.78	-2429.12	43.58	-2428.84	0.82	420501.73	658386.24	N 32° 9' 10.70" W	103° 57' 18.37"
	12572.00	90.14	90.58	10239.33	-2524.10	42.87	-2523.84	1.02	420501.02	658481.23	N 32° 9' 10.69" W	103° 57' 17.27"
	12667.00	89.80	90.34	10239.38	-2619.09	42.12	-2618.83	0.43	420500.27	658576.22	N 32° 9' 10.68" W	103° 57' 16.16"
	12762.00	89.69	90.36	10239.80	-2714.08	41.54	-2713.83	0.12	420499.69	658671.21	N 32° 9' 10.67" W	103° 57' 15.06"
	12857.00	89.73	90.56	10240.28	-2809.06	40.78	-2808.83	0.21	420498.93	658766.20	N 32° 9' 10.66" W	103° 57' 13.95"
	12952.00	89.80	90.42	10240.87	-2904.05	39.97	-2903.82	0.16	420498.11	658861.19	N 32° 9' 10.65" W	103° 57' 12.85"
	13047.00	89.83	90.36	10240.98	-2999.04	39.32	-2998.82	0.07	420497.47	658956.18	N 32° 9' 10.64" W	103° 57' 11.74"
	13142.00	89.87	90.31	10241.23	-3094.03	38.77	-3093.82	0.07	420496.91	659051.17	N 32° 9' 10.63" W	103° 57' 10.64"
	13237.00	89.14	90.40	10242.05	-3189.02	38.18	-3188.81	0.77	420496.32	659146.15	N 32° 9' 10.62" W	103° 57' 9.53"
	13331.00	89.25	90.59	10243.37	-3284.01	37.37	-3283.80	0.23	420495.51	659241.13	N 32° 9' 10.61" W	103° 57' 8.44"
	13426.00	88.70	90.38	10243.07	-3377.97	36.56	-3377.78	0.62	420494.71	659336.11	N 32° 9' 10.60" W	103° 57' 7.34"
	13521.00	88.84	90.58	10242.77	-3472.91	35.77	-3472.74	0.73	420493.91	659431.08	N 32° 9' 10.59" W	103° 57' 6.23"
	13616.00	87.77	90.31	10243.24	-3567.84	35.03	-3567.67	0.40	420493.18	659526.06	N 32° 9' 10.58" W	103° 57' 5.13"
	13711.00	89.45	90.33	10243.95	-3662.80	34.30	-3662.64	1.77	420492.85	659621.94	N 32° 9' 10.57" W	103° 57' 4.02"
	13806.00	88.73	90.31	10245.08	-3757.78	33.57	-3757.62	0.76	420492.11	659717.82	N 32° 9' 10.56" W	103° 57' 2.92"
	13901.00	89.42	90.41	10246.59	-3852.75	33.37	-3852.61	0.73	420491.82	659813.70	N 32° 9' 10.55" W	103° 57' 1.81"
	13996.00	89.42	90.52	10247.55	-3947.74	32.80	-3947.60	0.12	420490.75	659909.68	N 32° 9' 10.54" W	103° 57' 0.71"
	14091.00	89.78	90.66	10248.23	-4042.72	31.62	-4042.59	0.39	420489.77	659995.67	N 32° 9' 10.53" W	103° 56' 59.60"
	14186.00	89.25	90.36	10249.05	-4137.70	30.75	-4137.59	0.61	420488.90	660091.65	N 32° 9' 10.51" W	103° 56' 58.50"
	14281.00	89.58	90.44	10250.04	-4232.68	30.06	-4232.58	0.33	420488.21	660187.84	N 32° 9' 10.50" W	103° 56' 57.39"
	14376.00	88.90	90.47	10251.31	-4327.66	29.31	-4327.57	0.70	420487.46	660284.82	N 32° 9' 10.49" W	103° 56' 56.29"
	14471.00	87.56	89.90	10254.25	-4422.61	29.00	-4422.52	1.53	420487.15	660379.78	N 32° 9' 10.49" W	103° 56' 55.18"
	14566.00	88.70	90.40	10257.32	-4517.55	28.78	-4517.47	1.32	420486.90	660474.70	N 32° 9' 10.48" W	103° 56' 54.09"
	14661.00	87.94	89.48	10270.10	-4611.51	28.88	-4611.42	1.28	420487.00	660569.65	N 32° 9' 10.48" W	103° 56' 52.99"
	14756.00	88.66	90.46	10272.92	-4706.46	28.90	-4706.38	1.26	420487.05	660664.60	N 32° 9' 10.48" W	103° 56' 51.88"
	14851.00	88.59	90.49	10275.20	-4801.42	28.12	-4801.35	0.08	420486.27	660759.58	N 32° 9' 10.48" W	103° 56' 50.78"
	14946.00	89.49	90.28	10278.79	-4896.39	27.48	-4896.33	0.87	420485.63	660854.54	N 32° 9' 10.45" W	103° 56' 49.67"
	15041.00	89.32	89.87	10277.78	-4991.39	27.35	-4991.33	0.47	420485.50	660949.53	N 32° 9' 10.45" W	103° 56' 48.57"
	15136.00	89.62	89.53	10278.66	-5086.38	27.85	-5086.32	0.48	420486.00	661044.52	N 32° 9' 10.45" W	103° 56' 47.48"
	15231.00	88.84	89.58	10279.85	-5181.37	29.44	-5181.30	1.25	420487.58	661139.49		

Comments	MD (m)	Incl (°)	Azin Grid (°)	TVD (m)	VSEC (m)	NS (m)	EW (m)	DLB (°/100m)	Northing (mUS)	Easting (mUS)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
	18464.00	88.59	89.27	10335.38	8414.15	99.89	8413.62	0.34	420557.83	664370.56	N 32 9 20.04 W 103 58 8.76	
	18599.00	88.80	91.45	10338.70	8509.13	99.09	8508.80	2.44	420557.24	664465.53	N 32 9 20.03 W 103 58 7.65	
	18749.00	88.73	92.08	10340.79	8606.94	93.28	8606.47	0.22	420551.42	664655.38	N 32 9 19.97 W 103 58 5.44	
	18844.00	88.80	91.57	10342.84	8703.84	90.27	8703.40	0.52	420548.41	664750.30	N 32 9 19.94 W 103 58 4.34	
	18939.00	88.70	91.41	10344.91	8808.70	87.80	8808.34	0.20	420545.94	664845.24	N 32 9 19.91 W 103 58 3.24	
	19034.00	88.73	91.45	10347.04	8913.69	85.43	8913.29	0.05	420543.57	664940.18	N 32 9 19.88 W 103 58 2.13	
	19128.00	88.94	91.22	10348.95	9077.62	83.24	9077.25	0.31	420541.38	665034.13	N 32 9 19.86 W 103 58 1.04	
	19224.00	88.56	91.77	10351.05	9173.54	80.74	9173.19	0.70	420538.88	665130.07	N 32 9 19.83 W 103 55 59.92	
	19318.00	88.63	92.00	10353.38	9268.43	77.61	9268.11	0.25	420535.76	665224.95	N 32 9 19.79 W 103 55 58.82	
	19414.00	88.94	91.56	10355.39	9363.34	74.66	9363.04	0.57	420532.81	665319.90	N 32 9 19.76 W 103 55 57.71	
	19510.00	88.59	91.01	10357.40	9459.27	72.51	9459.00	0.68	420530.65	665415.85	N 32 9 19.74 W 103 55 56.60	
	19605.00	88.70	89.45	10359.71	9554.24	72.13	9553.97	1.65	420530.27	665510.81	N 32 9 19.73 W 103 55 55.49	
	19700.00	88.80	89.67	10361.70	9649.22	72.86	9648.94	0.31	420531.00	665605.78	N 32 9 19.73 W 103 55 54.39	
	19795.00	88.97	89.45	10363.48	9744.20	73.59	9743.92	0.24	420531.73	665700.75	N 32 9 19.74 W 103 55 53.28	
	19890.00	88.84	89.60	10365.19	9839.18	74.37	9838.90	0.18	420532.52	665795.73	N 32 9 19.74 W 103 55 52.18	
	19985.00	88.70	89.81	10367.15	9934.18	74.86	9933.88	0.34	420533.01	665890.70	N 32 9 19.74 W 103 55 51.07	
	20080.00	89.00	89.82	10368.08	10029.14	75.34	10028.86	0.37	420533.48	665985.67	N 32 9 19.74 W 103 55 49.97	
Bottom Perf Cross	20082.00	89.00	89.61	10369.09	10031.14	75.35	10030.86	0.62	420533.49	665987.67	N 32 9 19.74 W 103 55 49.95	
Final MWD Survey	20175.00	89.00	89.03	10370.72	10124.13	76.45	10123.84	0.62	420534.80	666080.64	N 32 9 19.75 W 103 55 48.87	
Proj to Bit	20180.00	88.73	89.39	10371.01	10129.12	76.66	10138.84	3.00	420534.81	666095.64	N 32 9 19.75 W 103 55 48.69	
	20235.00	88.73	89.39	10372.01	10184.11	77.14	10183.82	0.00	420535.28	666140.62	N 32 9 19.75 W 103 55 48.17	

Survey Type: Def Survey

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

Description	Part	MD From (m)	MD To (m)	EDU Freq (m)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/98 425	30.000	30.000 NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
	1	26.500	28.500	Act Stns	30.000	30.000 NAL_NSQ+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
	1	26.500	374.500	Act Stns	30.000	30.000 NAL_NSQ+MSHOT	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR
	1	374.500	6715.000	Act Stns	30.000	30.000 NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR
	1	6715.000	10712.000	Act Stns	30.000	30.000 NAL_MWD_IFR1+MS	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR
	1	10712.000	20235.000	Act Stns	30.000	30.000 NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR

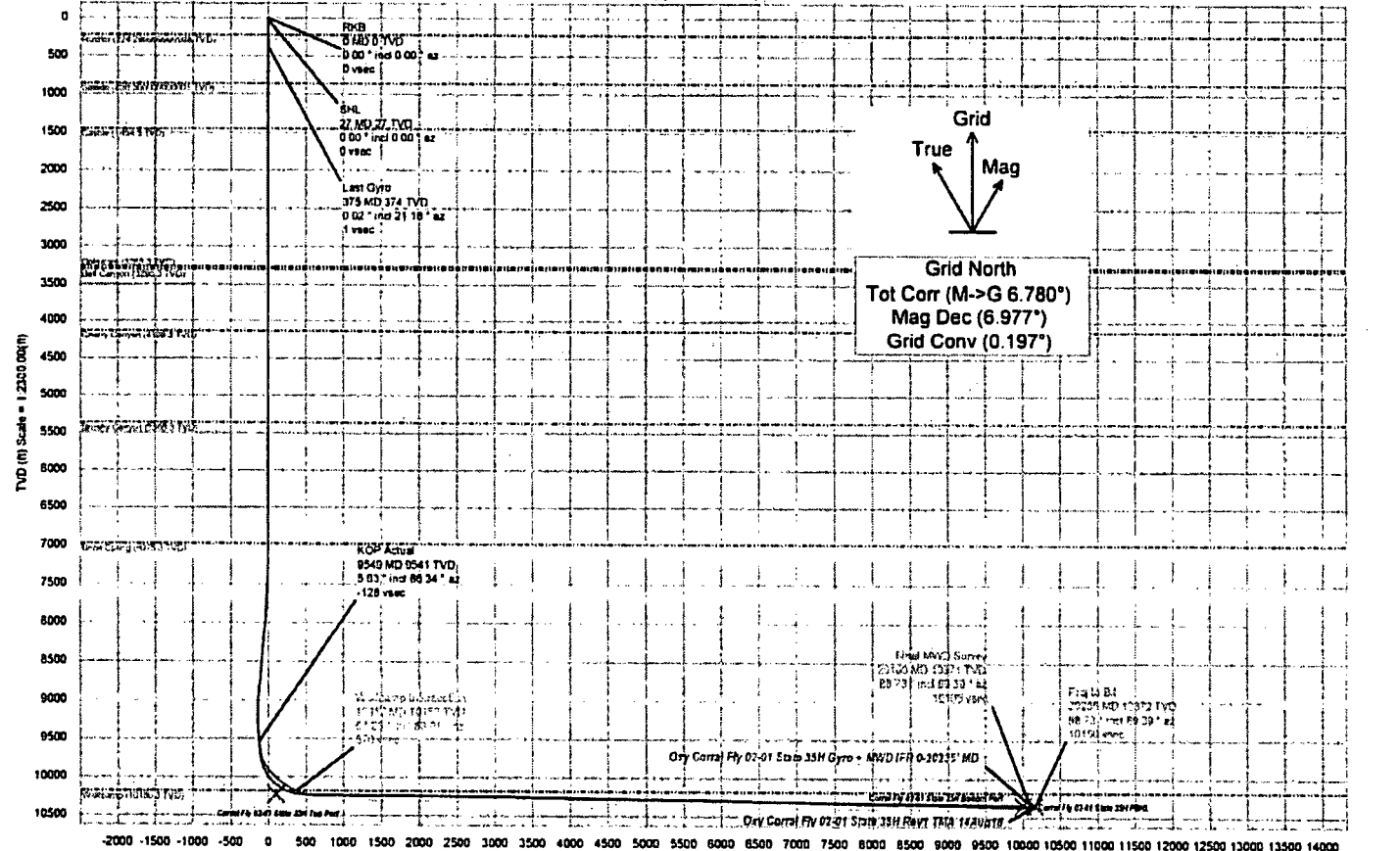
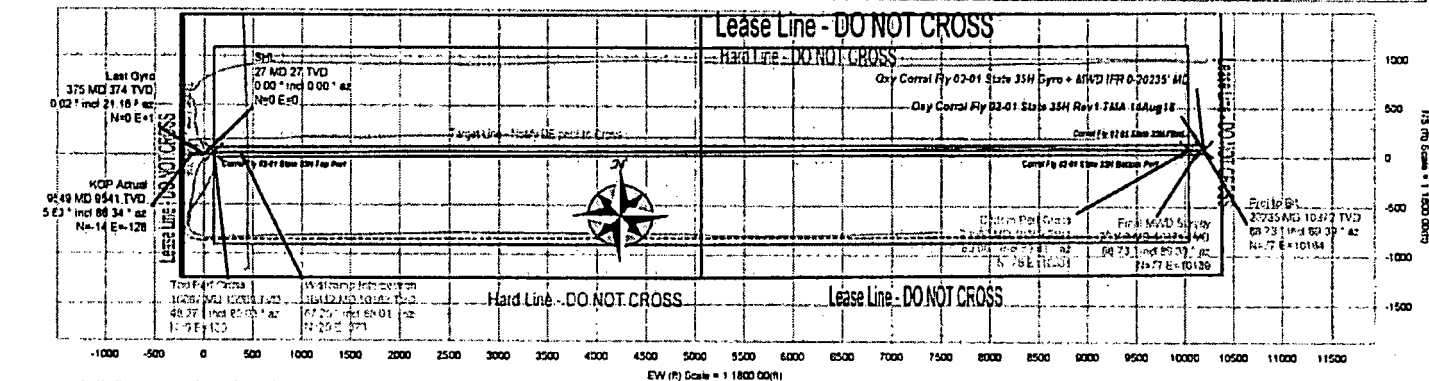
...Original Borehole/Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD

Schlumberger

OXY



Borehole:		Well:		Field:		Structure:			
Original Borehole		Corral Fly 02-01 State 35H		NM Eddy County (NAD 83)		Oxy Corral Fly 02-01 State 35H			
Gravity & Magnetic Parameters				Surface Location		Miscellaneous			
Model:	HGM 2010	Op:	09/02/2018	Date:	14-Aug-2018	Lat:	N 32° 9' 18.38"		
Magnet:	6.977	FS:	47963.54mT	Gravity FS:	998.44m/s² (9.80665 m/s²)	Long:	W 103° 07' 48.83"		
				Northings:		42504 (18N)	Grid Conv:	0.1971	
				Easting:		58897 (18E)	Scale Fact:	0.9993416	
						Plan:	Corral Fly 02-01 State 35H	TVD Ref:	RKB=26 (11000 IN above MSL)
						Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235 MD			
Critical Points									
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS	
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
SHL	28.50	0.00	0.00	28.50	0.00	0.00	0.00	0.00	
Last Gyro	374.50	0.02	21.18	374.50	0.68	-0.06	0.68	0.51	
KOP Actual	9549.00	5.63	86.34	9541.44	-128.14	-14.38	-128.03	1.99	
Top Perf Cross	10087.00	48.27	85.03	10008.99	100.42	6.94	100.35	5.24	
Wolfcamp Intersection	10411.86	87.25	88.01	10182.09	373.07	19.95	372.92	4.31	
Bottom Perf Cross	20082.00	89.00	89.61	10359.09	10031.14	75.35	10030.86	0.62	
Final MWD Survey	20190.00	88.73	89.39	10371.01	10139.12	76.66	10138.64	3.00	
Proj to Bit	20235.00	88.73	89.39	10372.01	10184.11	77.14	10183.82	0.00	



Vertical Section (V) Azim = 94.28° Scale = 1:2300 00(R) Origin = 0N-D, 0E-W