

Oilfield Services, Central U.S. Land
Schlumberger Drilling and Measurements
Drilling Group
Geo Market Area: South West Texas Basin
7220 W I-H 20
Midland, Texas 79706
Phone : (432) 742-5400 (Main)
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Schlumberger

NM OIL CONSERVATION
ARTESIA DISTRICT

IAN 08 2019

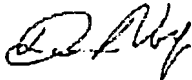
30-015-44589

Well Reference:
2, 25S, 29E, Eddy NM
N 32.15538 W -103.96295

RECEIVED

I, Dom Nolfi certify that; I am employed by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I did on the day(s) of July 26, 2018 through August 29, 2018, conduct or supervise the taking of the TelePacer/SlimPulse & Third Party Corrected surveys from a depth of 504.00 feet to a depth of 20190.00 feet referenced to driller's depth; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY USA INC for the Corral Fly 02-01 State 35H Well (Original Hole) API No. 30-015-44589 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

By
Dom Nolfi
FS



Subscribed and Sworn to before me this 8th day of October (month) 2018 (yr)

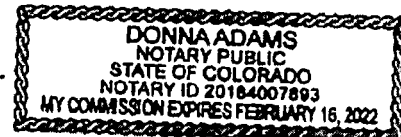
My Commission expires:

2-16-2022

D. Adams
Notary Public

Adams County Colorado
(County State)

(signature)



Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD Survey

Geodetic Report

(Def Survey)



Report Date: August 30, 2018 - 01:00 PM
 Client: OXY
 Field: NM Eddy County (NAD 83)
 Structure / Shot: Oxy Corral Fly 02-01 State 35H / Corral Fly 02-01 State 35H
 Well: Corral Fly 02-01 State 35H
 Borehole: Original Borehole
 UTM / 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 / DDI / ERD Ratio: 209.074' / 10503.209 N / 6.833 / 1.013
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 0' 19.35284", W 103° 57' 48.62735"
 Location Grid N/E Y/X: N 420458.150 M/S, E 855957.590 M/S
 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 N, 0.000 H
 TVD Reference Datum: RKB=28.5'
 TVD Reference Elevation: 3058.250 ft above MSL
 Seabed / Ground Elevation: 3032.700 ft above MSL
 Magnetic Declination: 6.977°
 Total Gravity Field Strength: 988.4545mgm (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47963.346 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 Mag North→Grid: 6.7796°
 North: Well Head

Comments	MD (ft)	Incl (°)	Azin Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLB (ft/100m)	Northing (MUS)	Easting (MUS)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	420458.15	855957.59	N 32° 0' 19.35"	W 103° 57' 48.63"
SHL	28.50	0.00	0.00	28.50	0.00	0.00	0.00	0.00	420458.15	855957.59	N 32° 0' 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° 0' 19.35"	W 103° 57' 48.63"
	189.50	0.24	87.54	189.50	0.27	0.07	0.27	0.20	420458.22	855957.66	N 32° 0' 19.35"	W 103° 57' 48.62"
	278.50	0.03	256.60	278.50	0.43	0.07	0.43	0.31	420458.22	855958.02	N 32° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	374.50	0.02	21.18	374.50	0.68	-0.06	0.68	0.51	420458.09	855958.27	N 32° 0' 19.35"	W 103° 57' 40.02"
	504.00	0.25	328.30	504.00	0.54	0.20	0.54	0.18	420458.35	855958.13	N 32° 0' 19.35"	W 103° 57' 48.62"
	688.00	0.13	126.30	688.00	0.50	0.42	0.50	0.21	420458.57	855958.09	N 32° 0' 19.36"	W 103° 57' 48.62"
	887.00	0.06	128.16	887.00	0.74	0.24	0.74	0.04	420458.39	855958.33	N 32° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	1140.00	0.06	153.10	1140.00	0.79	-0.14	0.80	0.04	420458.01	855958.39	N 32° 0' 19.35"	W 103° 57' 48.62"
	1230.00	0.06	359.42	1230.00	0.82	-0.13	0.82	0.13	420458.02	855958.41	N 32° 0' 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° 0' 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° 0' 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° 0' 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° 0' 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° 0' 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° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	1972.00	0.06	216.27	1972.00	0.90	0.08	0.90	0.13	420458.23	855958.49	N 32° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	2162.00	0.06	297.42	2162.00	0.79	0.16	0.78	0.04	420458.31	855958.37	N 32° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	2352.00	0.06	189.23	2352.00	0.80	0.06	0.80	0.06	420458.21	855958.38	N 32° 0' 19.35"	W 103° 57' 48.62"
	2448.00	0.06	289.80	2448.00	0.75	0.03	0.75	0.10	420458.18	855958.34	N 32° 0' 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° 0' 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° 0' 19.35"	W 103° 57' 48.62"
	2921.00	0.11	169.25	2921.00	0.68	-0.61	0.68	0.02	420457.54	855958.27	N 32° 0' 19.35"	W 103° 57' 48.62"
	3016.00	0.06	202.99	3016.00	0.67	-0.75	0.68	0.07	420457.40	855958.27	N 32° 0' 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° 0' 19.34"	W 103° 57' 48.62"
	3301.00	0.06	158.04	3301.00	0.44	-0.88	0.44	0.07	420457.17	855958.03	N 32° 0' 19.34"	W 103° 57' 48.62"
	3396.00	0.06	345.84	3396.00	0.44	-0.58	0.45	0.13	420457.17	855958.04	N 32° 0' 19.34"	W 103° 57' 48.62"
	3585.00	0.06	229.13	3585.00	0.34	-0.95	0.35	0.05	420457.20	855957.94	N 32° 0' 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° 0' 19.34"	W 103° 57' 48.62"
	3774.00	0.06	110.83	3774.00	0.43	-0.94	0.44	0.08	420457.21	855958.03	N 32° 0' 19.34"	W 103° 57' 48.62"
	3964.00	0.06	99.49	3964.00	0.82	-0.99	0.83	0.01	420457.18	855958.22	N 32° 0' 19.34"	W 103° 57' 48.62"
	4059.00	0.11	56.90	4059.00	0.75	-0.95	0.76	0.08	420457.20	855958.35	N 32° 0' 19.34"	W 103° 57' 48.62"
	4154.00	0.06	290.84	4154.00	0.78	-0.68	0.79	0.16	420457.27	855958.28	N 32° 0' 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	855958.30	N 32° 0' 19.34"	W 103° 57' 48.62"
	4439.00	0.00	47.51	4439.00	0.99	-0.87	1.00	0.04	420457.28	855958.56	N 32° 0' 19.34"	W 103° 57' 48.62"
	4533.00	0.06	149.41	4533.00	1.05	-0.88	1.06	0.10	420457.27	855958.65	N 32° 0' 19.34"	W 103° 57' 48.62"
	4628.00	0.06	336.87	4628.00	1.06	-0.88	1.06	0.13	420457.27	855958.65	N 32° 0' 19.34"	W 103° 57' 48.62"
	4818.00	0.06	334.89	4817.99	0.98	-0.70	0.98	0.00	420457.45	855958.57	N 32° 0' 19.35"	W 103° 57' 48.62"
	4913.00	0.06	334.05	4912.99	0.93	-0.61	0.94	0.00	420457.54	855958.53	N 32° 0' 19.35"	W 103° 57' 48.62"
	5008.00	0.00	150.57	5007.99	0.94	-0.61	0.94	0.13	420457.54	855958.53	N 32° 0' 19.35"	W 103° 57' 48.62"
	5103.00	0.06	31.42	5102.99	0.99	-0.61	0.99	0.11	420457.54	855958.54	N 32° 0' 19.35"	W 103° 57' 48.62"
	5198.00	0.06	198.66	5197.99	1.00	-0.61	1.00	0.13	420457.54	855958.59	N 32° 0' 19.35"	W 103° 57' 48.62"
	5292.00	0.08	302.25	5291.99	0.93	-0.63	0.93	0.12	420457.32	855958.52	N 32° 0' 19.35"	W 103° 57' 48.62"
	5387.00	0.11	278.08	5386.99	0.78	-0.58	0.79	0.05	420457.57	855958.38	N 32° 0' 19.35"	W 103° 57' 48.62"
	5482.00	0.06	253.80	5481.99	0.64	-0.57	0.65	0.08	420457.58	855958.24	N 32° 0' 19.35"	W 103° 57' 48.62"
	5671.00	0.06	18.47	5670.99	0.58	-0.51	0.58	0.08	420457.64	855958.17	N 32° 0' 19.35"	W 103° 57' 48.62"
	5766.00	0.00	117.88	5765.99	0.63	-0.48	0.64	0.10	420457.67	855958.23	N 32° 0' 19.35"	W 103° 57' 48.62"
	5956.00	0.11	340.67	5955.99	0.68	-0.38	0.67	0.14	420457.79	855958.20	N 32° 0' 19.35"	W 103° 57' 48.62"
	6050.00	0.06	241.46	6049.99	0.59	-0.30	0.59	0.12	420457.85	855958.18	N 32° 0' 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	855958.18	N 32° 0' 19.35"	W 103° 57' 48.62"
	6240.00	0.06	181.87	6239.99	0.59	-0.28	0.59	0.12	420457.87	855958.18	N 32° 0' 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	855958.18	N 32° 0' 19.35"	W 103° 57' 48.62"
	6430.00	0.08	175.86	6429.99	0.54	-0.48	0.55	0.05	420457.67	855958.14	N 32° 0' 19.35"	W 103° 57' 48.62"
	6525.00	0.06	38.45	6524.99	0.61	-0.54	0.62	0.07	420457.61	855958.21	N 32° 0' 19.35"	W 103° 57' 40.02"
	6715.00	0.13	108.08	6714.99	0.75	-0.53	0.75	0.13	420457.82	855958.34	N 32° 0' 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° 0' 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° 0' 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	855958.08	N 32° 0' 19.35"	W 103° 57' 48.61"
	7094.00	1.17	218.99	7093.99	0.67	-1.18	0.68	1.35	420456.87	855956.27	N 32° 0' 19.34"	W 103° 57' 48.62"
	7189.00	1.99	234.94	7188.99	-1.28	-2.90	-1.25	1.00	420455.25	855956.34	N 32° 0' 19.32"	W 103° 57' 46.64"
	7284.00	2.86	239.87	7283.80	-4.50	-4.94	-4.48	0.87	420453.21	855953.13	N 32° 0' 19.30"	W 103° 57' 48.68"
	7379.00	3.43	241.81	7378.60	-8.08	-6.10	-8.03	1.30	420452.05	855949.50	N 32° 0' 19.29"	W 103° 57' 46.72"
	7474.00	3.43	241.81	7473.60	-12.30	-7.52	-12.24	1.91	420450.84	855945.35	N 32° 0' 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° 0' 19.26"	W 103° 57' 48.83"
	7664.00	3.51	264.98	7663.34	-23.15	-11.04	-23.06	0.93	420447.11	855934.53	N 32° 0' 19.24"	W 103° 57' 48.90"
	7759.00	2.68	282.58	7758.21	-28.21	-10.81	-28.12	1.32	420446.34	855929.47	N 32° 0' 19.23"	W 103° 57' 48.95"
	7854.00	2.38	292.73	7853.08	-32.92	-10.57	-32.85	0.84	420446.48	855924.79	N 32° 0' 19.26"	W 103° 57' 47.01"
	7949.00	4.36	299.85	7947.80	-38.58	-6.40	-38.51	0.				

Comments	MD (m)	Incl (°)	Azim Grid (°)	TVD (m)	VSEC (m)	NS (m)	EW (m)	DLS (m/100m)	Northings (m)	Easting (m)	Latitude (N/S ° ° ' '')	Longitude (E/W ° ° ' '')
	8519.00	3.99	273.07	8515.35	-88.40	8.98	-88.47	0.99	420487.13	655860.12	N 32° 01' 44.44" W	103° 57' 47.66" E
	8814.00	3.05	260.44	8810.08	-95.83	8.48	-95.90	1.32	420486.61	655861.70	N 32° 01' 44.44" W	103° 57' 47.74" E
	8708.00	7.08	258.55	8703.53	-105.58	8.63	-105.64	2.15	420464.78	655851.98	N 32° 01' 42.22" W	103° 57' 47.88" E
	8603.00	8.04	258.61	8597.70	-117.84	4.18	-117.88	1.03	420462.31	655839.72	N 32° 01' 40.00" W	103° 57' 48.00" E
	8589.00	7.48	258.83	8581.53	-130.44	1.78	-130.45	0.63	420459.91	655827.14	N 32° 01' 37.78" W	103° 57' 48.14" E
	8592.00	4.37	252.89	8585.32	-139.89	-0.37	-139.89	3.37	420457.78	655813.23	N 32° 01' 35.56" W	103° 57' 48.25" E
	9087.00	2.62	208.12	9080.18	-144.40	-3.36	-144.37	3.78	420454.70	655813.23	N 32° 01' 35.56" W	103° 57' 48.31" E
	9182.00	2.11	172.76	9175.08	-145.23	-7.01	-145.18	1.60	420451.14	655812.42	N 32° 01' 32.99" W	103° 57' 48.32" E
	9277.00	2.18	144.71	9270.02	-143.99	-10.22	-143.91	1.10	420447.94	655813.69	N 32° 01' 29.76" W	103° 57' 48.30" E
	9372.00	2.94	118.79	9364.93	-140.83	-12.66	-140.73	1.44	420445.29	655816.87	N 32° 01' 23.55" W	103° 57' 48.28" E
	9443.00	3.93	98.41	9435.80	-138.84	-14.10	-138.73	2.19	420444.05	655820.87	N 32° 01' 22.22" W	103° 57' 48.22" E
	9467.00	4.21	95.84	9459.74	-135.15	-14.31	-135.04	1.39	420443.84	655822.56	N 32° 01' 22.22" W	103° 57' 48.20" E
	9549.00	5.63	88.34	9541.44	-128.14	-14.36	-128.03	1.99	420443.80	655828.57	N 32° 01' 22.22" W	103° 57' 48.12" E
	9703.00	11.22	77.45	9693.72	-105.93	-10.82	-105.85	3.72	420447.54	655851.75	N 32° 01' 22.22" W	103° 57' 47.86" E
	9798.00	24.80	84.70	9783.87	-76.90	-8.75	-76.85	14.48	420451.40	655880.74	N 32° 01' 29.76" W	103° 57' 47.52" E
	9893.00	35.06	84.12	9886.06	-29.78	-2.10	-29.74	10.80	420450.05	655927.85	N 32° 01' 33.33" W	103° 57' 46.97" E
	9987.00	42.06	85.65	9939.07	29.17	3.10	29.14	8.47	420461.23	655990.73	N 32° 01' 38.89" W	103° 57' 46.29" E
	10082.00	48.01	85.04	10005.85	96.70	8.82	96.64	5.34	420466.76	656054.22	N 32° 01' 43.33" W	103° 57' 45.50" E
	10087.00	48.27	85.03	10008.99	100.42	8.94	100.35	5.24	420467.09	656057.93	N 32° 01' 44.44" W	103° 57' 45.48" E
	10178.00	53.04	84.83	10068.07	176.54	15.16	170.43	5.24	420473.31	656128.00	N 32° 01' 50.00" W	103° 57' 44.64" E
	10273.00	58.61	86.43	10120.04	248.02	18.28	248.88	7.62	420478.43	656206.45	N 32° 01' 55.56" W	103° 57' 43.73" E
	10368.00	65.52	88.93	10184.32	332.89	18.84	332.75	7.42	420478.99	656290.32	N 32° 01' 55.56" W	103° 57' 42.78" E
	10411.88	67.25	88.01	10182.09	373.07	19.95	372.92	4.31	420478.10	656330.48	N 32° 01' 54.44" W	103° 57' 42.29" E
	10483.00	69.27	87.08	10201.03	420.54	21.99	420.38	4.31	420480.14	656377.04	N 32° 01' 58.89" W	103° 57' 41.74" E
	10558.00	79.09	93.67	10228.92	511.78	21.28	511.61	12.31	420479.43	656469.10	N 32° 01' 58.89" W	103° 57' 40.66" E
	10652.00	87.85	94.91	10237.60	604.74	14.29	604.64	9.41	420472.44	656562.19	N 32° 01' 57.78" W	103° 57' 39.59" E
	10712.00	89.88	92.87	10238.79	684.55	10.23	684.49	4.80	420468.37	656622.02	N 32° 01' 54.44" W	103° 57' 38.90" E
	10767.00	89.66	90.53	10239.01	719.50	8.59	719.46	4.27	420466.74	656678.99	N 32° 01' 51.11" W	103° 57' 38.26" E
	10862.00	90.52	89.04	10238.86	814.50	8.95	814.45	1.81	420467.10	656771.98	N 32° 01' 51.11" W	103° 57' 37.15" E
	10957.00	90.11	88.64	10238.34	909.49	10.87	909.43	0.60	420469.02	656866.95	N 32° 01' 51.11" W	103° 57' 36.05" E
	11052.00	89.59	88.82	10238.59	1004.48	13.15	1004.40	0.55	420471.29	656961.92	N 32° 01' 54.44" W	103° 57' 34.94" E
	11147.00	89.87	88.47	10239.04	1089.48	15.96	1089.37	0.33	420473.71	657056.88	N 32° 01' 54.44" W	103° 57' 33.84" E
	11241.00	90.11	88.41	10239.05	1193.45	18.12	1193.34	0.26	420476.26	657150.84	N 32° 01' 54.44" W	103° 57' 32.75" E
	11336.00	90.42	88.85	10238.61	1288.43	20.95	1288.31	0.41	420478.70	657245.80	N 32° 01' 51.11" W	103° 57' 31.64" E
	11431.00	90.48	88.75	10237.87	1383.42	22.71	1383.28	0.12	420480.88	657340.76	N 32° 01' 53.33" W	103° 57' 30.54" E
	11526.00	91.38	88.76	10236.33	1478.39	24.77	1478.24	0.95	420482.92	657435.72	N 32° 01' 55.56" W	103° 57' 29.43" E
	11621.00	91.10	88.17	10234.27	1573.35	27.32	1573.19	0.69	420485.48	657530.65	N 32° 01' 57.78" W	103° 57' 28.33" E
	11717.00	90.60	88.43	10232.80	1668.32	30.16	1668.13	0.53	420488.31	657625.59	N 32° 01' 59.00" W	103° 57' 27.21" E
	11812.00	88.80	87.69	10231.24	1764.28	33.38	1764.07	2.11	420491.53	657721.52	N 32° 01' 58.89" W	103° 57' 26.11" E
	11907.00	90.21	88.33	10234.06	1859.24	36.68	1859.01	1.83	420494.83	657816.45	N 32° 01' 58.89" W	103° 57' 25.00" E
	12002.00	88.20	88.23	10233.97	1954.22	39.93	1953.90	0.34	420497.68	657911.40	N 32° 01' 58.89" W	103° 57' 23.90" E
	12097.00	88.78	88.06	10233.08	2049.18	42.60	2048.91	1.21	420500.74	658006.34	N 32° 01' 57.78" W	103° 57' 22.79" E
	12192.00	88.63	89.54	10232.25	2144.15	44.59	2143.85	1.54	420502.74	658101.28	N 32° 01' 57.78" W	103° 57' 21.69" E
	12287.00	90.35	90.39	10231.09	2239.14	44.85	2238.85	2.02	420505.80	658196.27	N 32° 01' 57.78" W	103° 57' 20.58" E
	12382.00	89.80	90.30	10230.97	2334.13	44.08	2333.85	0.59	420508.23	658291.26	N 32° 01' 57.78" W	103° 57' 19.48" E
	12477.00	89.21	90.30	10230.79	2429.12	43.58	2428.84	0.62	420510.73	658386.24	N 32° 01' 57.78" W	103° 57' 18.37" E
	12572.00	90.14	90.56	10230.33	2524.10	42.87	2523.84	1.02	420510.02	658481.23	N 32° 01' 56.67" W	103° 57' 17.27" E
	12667.00	89.80	90.34	10230.38	2619.09	42.12	2618.83	0.43	420510.27	658576.22	N 32° 01' 56.67" W	103° 57' 16.16" E
	12762.00	89.69	90.38	10230.80	2714.08	41.54	2713.83	0.12	420499.69	658671.21	N 32° 01' 57.78" W	103° 57' 15.06" E
	12857.00	89.73	90.58	10230.28	2809.06	40.78	2808.83	0.21	420498.93	658766.20	N 32° 01' 56.67" W	103° 57' 13.95" E
	12952.00	89.80	90.42	10230.67	2904.05	39.97	2903.82	0.16	420498.11	658861.19	N 32° 01' 55.56" W	103° 57' 12.85" E
	13047.00	89.83	90.36	10230.98	2999.04	39.32	2998.82	0.07	420497.47	658956.18	N 32° 01' 54.44" W	103° 57' 11.74" E
	13142.00	89.87	90.31	10231.23	3094.03	38.77	3093.82	0.07	420496.91	659051.17	N 32° 01' 53.33" W	103° 57' 10.64" E
	13237.00	89.14	90.40	10232.05	3189.02	38.16	3188.81	0.77	420496.32	659146.15	N 32° 01' 52.22" W	103° 57' 9.53" E
	13331.00	89.25	90.59	10231.37	3284.01	37.37	3283.80	0.23	420495.51	659241.13	N 32° 01' 51.11" W	103° 57' 8.44" E
	13426.00	88.70	90.38	10231.07	3377.87	36.56	3377.78	0.62	420494.71	659336.11	N 32° 01' 50.00" W	103° 57' 7.34" E
	13521.00	88.04	90.58	10230.77	3472.91	35.77	3472.74	0.73	420493.91	659431.08	N 32° 01' 50.00" W	103° 57' 6.23" E
	13616.00	87.77	90.31	10231.24	3567.84	35.03	3567.67	0.40	420493.18	659526.06	N 32° 01' 50.00" W	103° 57' 5.13" E
	13711.00	89.43	90.33	10231.05	3662.80	34.50	3662.64	1.77	420492.55	659621.04	N 32° 01' 50.00" W	103° 57' 4.02" E
	13806.00	88.73	90.31	10231.06	3757.78	33.97	3757.62	0.78	420492.11	659716.02	N 32° 01' 50.00" W	103° 57' 2.92" E
	13901.00	89.42	90.41	10230.59	3852.75	33.37	3852.61	0.73	420491.62	659811.00	N 32° 01' 48.89" W	103° 57' 1.81" E
	13996.00	89.42	90.52	10230.55	3947.74	32.60	3947.60	0.12	420490.75	659906.88	N 32° 01' 47.78" W	103° 57' 0.71" E
	14091.00	89.78	90.68	10230.23	4042.72	31.82	4042.59	0.39	420489.77	659999.87	N 32° 01' 46.67" W	103° 56' 59.60" E
	14186.00	89.25	90.39	10230.05	4137.70	30.75	4137.59	0.61	420488.90	660094.85	N 32° 01' 45.56" W	103° 56' 58.50" E
	14281.00	89.56	90.44	10230.04	4232.68	30.08	4232.58	0.33	420488.21	660189.84	N 32° 01' 44.44" W	103° 56' 57.39" E
	14376.00	89.80	90.47	10230.31	4327.66	29.31	4327.57	0.70	420487.48	660284.82	N 32° 01' 44.44" W	103° 56' 56.29" E
	14471.00	89.56	89.90	10230.25	4422.61	29.00	4422.52	1.53	420487.15	660379.76	N 32° 01' 44.44" W	103° 56' 55.18" E
	14566.00	88.70	90.40	10230.12	4517.55	28.70	4517.47	1.32	420486.90	660474.70	N 32° 01' 44.44" W	103° 56' 54.08" E
	14661.00	89.44	89.48	10230.10	4612.51	28.86	4612.42	1.26	420487.00	660569.65	N 32° 01' 44.44" W	103° 56' 52.99" E
	14756.00	88.06	90.46	10230.92	4707.48	28.90	4707.38	1.28	420487.05	660664.60	N 32° 01' 44.44" W	103° 56' 51.88" E
	14851.00	88.59	90.49	10230.70	4802.42	28.12	4802.33	0.68	420486.27	660759.58	N 32° 01' 44.44" W	103° 56' 50.78" E
	14946.00	89.49	90.28	10230.79	4897.39	27.48	4897.33	0.87	420485.63	660854.54	N 32° 01' 44.44" W	103° 56' 49.67" E
	15041.00	89.32	89.87	10230.77	4992.38	27.35	4992.33	0.47	420485.50	660949.53	N 32° 01' 44.44" W	103° 56' 48.57" E
	15136.00	89.62	89.53	10230.68	5087.36	27.85						

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 ° ° °)
	18464.00	89.59	89.27	10335.38	8414.15	99.69	8413.62	0.34	420557.83	684370.50	N 32 9 20.04	W 103 56 8.78
	18559.00	88.80	91.45	10336.70	8509.13	99.09	8508.60	2.44	420557.24	684465.53	N 32 9 20.03	W 103 56 7.85
	18749.00	89.73	92.06	10340.79	8699.94	93.28	8698.47	0.32	420551.42	684635.38	N 32 9 19.97	W 103 56 5.44
	18944.00	88.80	91.57	10342.84	8793.84	90.27	8793.40	0.52	420548.41	684750.30	N 32 9 19.94	W 103 56 4.34
	18939.00	88.70	91.41	10344.91	8888.76	87.80	8888.34	0.20	420545.94	684845.24	N 32 9 19.91	W 103 56 3.24
	19034.00	88.73	91.45	10347.04	8983.69	85.43	8983.29	0.05	420543.57	684940.18	N 32 9 19.88	W 103 56 2.13
	19129.00	88.94	91.22	10348.95	9077.62	83.24	9077.25	0.33	420541.38	685034.13	N 32 9 19.86	W 103 56 1.04
	19224.00	88.58	91.77	10351.05	9173.54	80.74	9173.19	0.70	420538.88	685130.07	N 32 9 19.83	W 103 55 59.92
	19319.00	88.63	92.00	10353.38	9268.43	77.61	9268.11	0.25	420535.76	685224.98	N 32 9 19.79	W 103 55 58.82
	19414.00	88.94	91.58	10355.39	9363.34	74.66	9363.04	0.57	420532.81	685319.90	N 32 9 19.76	W 103 55 57.71
	19510.00	88.59	91.01	10357.48	9459.27	72.51	9459.00	0.88	420530.65	685415.85	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	420526.27	685510.81	N 32 9 19.73	W 103 55 55.49
	19700.00	88.90	89.67	10361.70	9649.22	72.66	9648.94	0.31	420531.00	685605.78	N 32 9 19.74	W 103 55 54.39
	19795.00	88.97	89.45	10363.48	9744.20	73.59	9743.92	0.24	420531.73	685700.75	N 32 9 19.74	W 103 55 53.28
	19890.00	88.64	89.60	10365.18	9839.18	74.37	9838.90	0.18	420532.52	685795.73	N 32 9 19.74	W 103 55 52.18
	19985.00	88.70	89.81	10367.15	9934.16	74.86	9933.88	0.34	420533.01	685890.70	N 32 9 19.74	W 103 55 51.07
	20080.00	89.00	89.82	10369.06	10029.14	75.34	10028.86	0.37	420533.48	685985.67	N 32 9 19.74	W 103 55 49.97
Bottom Part Cross	20083.00	89.00	89.81	10369.09	10031.14	75.35	10030.86	0.62	420533.49	685987.67	N 32 9 19.74	W 103 55 49.95
	20175.00	89.00	89.03	10370.72	10124.13	76.45	10123.84	0.62	420534.60	686080.64	N 32 9 19.75	W 103 55 48.87
Final MWD Survey	20190.00	88.73	89.39	10371.01	10139.12	76.66	10138.84	3.00	420534.81	686095.64	N 32 9 19.75	W 103 55 48.89
Proj to Bit	20235.00	88.73	89.39	10372.01	10184.11	77.14	10183.82	0.00	420535.28	686140.62	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 (ft)	MD To (ft)	EDU Freq (ft)	Hole Size Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0 000	28 500	1/98 425	30 000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
	1	28 500	28 500	Act Sns	30 000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
	1	28 500	374 500	Act Sns	30 000	NAL_NSG+MSHOT	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR
	1	374 500	6715 000	Act Sns	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 Sns	30 000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR
	1	10712 000	20235 000	Act Sns	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

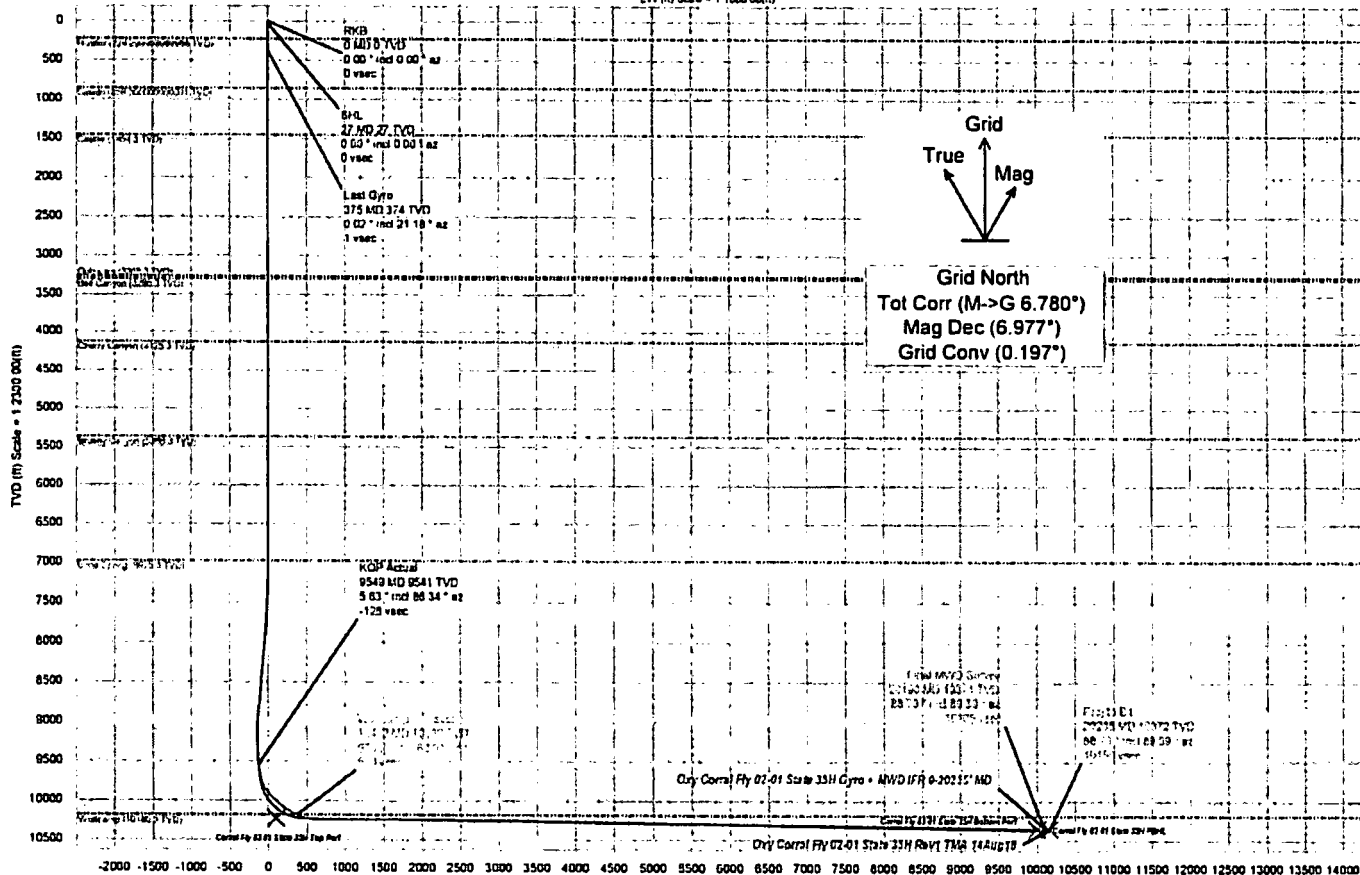
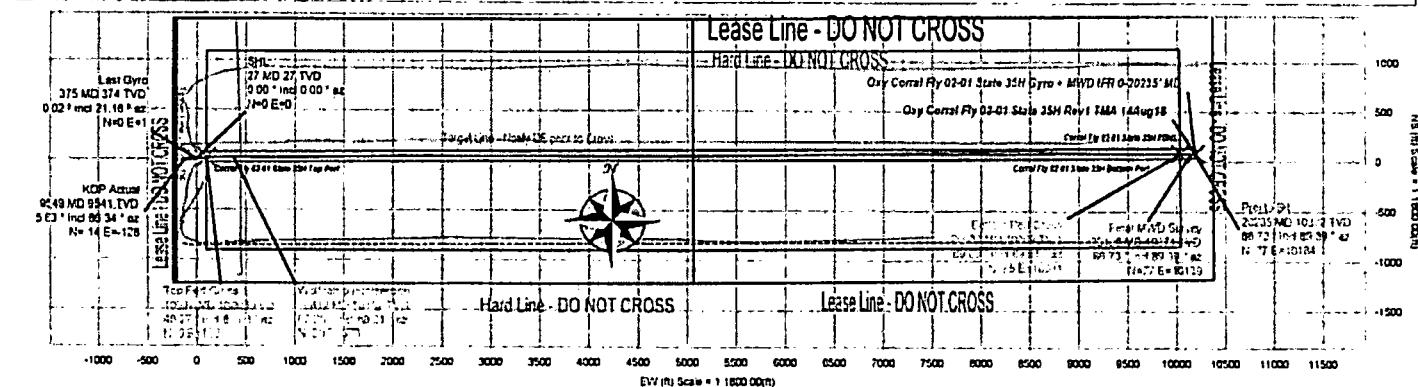
OXY



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	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Miscellaneous
Model: MAGM 2010 Date: 14 Aug 2010	Lat: N 32 9 19.58	Northing: 429488.18453	Corral Fly 02-01 State 35H
MagDec: 6.977° FS: 47963.348m T Gravity FS: 998.444mgals (9.81965 Gal)	Long: W 103 07 48.83	Eastng: 556867.88015	Plan: Oxy Corral Fly 02-01 State 35H Gyro + MWD IFR 0-20235' MD
		Grid Conv: 0.1971	
		Scale Fact: 0.89952116	

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	OLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	26.50	0.00	0.00	26.50	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	55.34	9541.44	-128.14	-14.38	-128.03	1.89
Top Perf Cross	10087.00	48.27	85.03	10008.99	100.42	8.94	100.35	5.24
Wolfcamp Intersection	10411.88	67.25	88.01	10162.09	373.07	19.95	372.92	4.31
Bottom Perf Cross	20082.00	89.00	89.61	10369.09	1003.14	75.35	10030.86	0.82
Final MWD Survey	20190.00	88.73	89.39	10371.01	10139.12	78.68	10138.84	3.00
Proj to BA	20235.00	88.73	89.39	10372.01	10164.11	77.14	10163.82	0.00



Vertical Section (ft) Azim = 94.28° Scale = 1:2300 (0m) Origin = ON-S, 0E-W