

Mewbourne Oil CompanySURVEY CALCULATION REPORT
Minimum Curvature CalculationsOperator: Mewbourne Oil Company
Lease Name: Ruger 6 Fed Com 5H
KOP 8337.04SL: 150 FNL & 1400 FWL Sec 6-20S-29E
BHL: 330 FSL & 1400 FWL Sec 6-20S-29ETarget KBTVD: 8,910 Feet 8910.00
Target Angle: 89.08 Degrees 89.08
Section Plane: 179.91 Degrees
Declination Corrected to True North: 6.63 Degrees
Bit to Survey Offset: 44 Feet

Survey No.	Measured Depth-ft	Drift (Deg.)	Azimuth (Deg.)	Course Length	TVD (Feet)	Vertical Section	+N-S (Feet)	+E-W (Feet)	Closure Distance	Closure Direction	BUR	DLS	KBTVD	+Above -Below Target	DRIFT RADIANS	AZIMUTH (RADIANS)
T/I	8337.04	0.00	179.91	N/A	8337.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8337.0	573.0	1E-12	3.14 #VALUE!
1	8426.13	8.91	179.91	89.085	8425.8	6.9	-6.9	0.0	6.9	179.9	10.0	10.0	8425.7	484.3	0.15548	3.14 0.155482
2	8515.21	17.82	179.91	89.085	8512.4	27.5	-27.5	0.0	27.5	179.9	10.0	10.0	8511.9	398.1	0.31096	3.14 0.155482
3	8604.30	26.73	179.91	89.085	8594.7	61.2	-61.2	0.1	61.2	179.9	10.0	10.0	8593.7	316.3	0.46645	3.14 0.155482
4	8693.38	35.63	179.91	89.085	8670.8	107.3	-107.3	0.2	107.3	179.9	10.0	10.0	8669.1	240.9	0.62193	3.14 0.155482
5	8782.47	44.54	179.91	89.085	8738.9	164.6	-164.6	0.3	164.6	179.9	10.0	10.0	8736.3	173.7	0.77741	3.14 0.155482
6	8871.55	53.45	179.91	89.085	8797.3	231.8	-231.8	0.4	231.8	179.9	10.0	10.0	8793.6	116.4	0.93289	3.14 0.155482
7	8960.64	62.36	179.91	89.085	8844.6	307.1	-307.1	0.5	307.1	179.9	10.0	10.0	8839.7	70.3	1.08838	3.14 0.155482
8	9049.72	71.27	179.91	89.085	8879.7	389.0	-389.0	0.6	389.0	179.9	10.0	10.0	8873.4	36.6	1.24386	3.14 0.155482
9	9138.81	80.18	179.91	89.085	8901.6	475.2	-475.2	0.8	475.2	179.9	10.0	10.0	8894.0	16.0	1.39934	3.14 0.155482
10	9227.89	89.08	179.91	89.085	8909.9	563.8	-563.8	0.9	563.8	179.9	10.0	10.0	8900.9	9.1	1.55482	3.14 0.155482
11	9300.00	89.08	179.91	72.11	8911.1	635.9	-635.9	1.0	635.9	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
12	9400.00	89.08	179.91	100	8912.7	735.9	-735.9	1.2	735.9	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
13	9500.00	89.08	179.91	100	8914.3	835.9	-835.9	1.4	835.9	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
14	9600.00	89.08	179.91	100	8915.9	935.9	-935.9	1.5	935.9	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
15	9700.00	89.08	179.91	100	8917.5	1035.9	-1035.9	1.7	1035.9	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
16	9800.00	89.08	179.91	100	8919.1	1135.8	-1135.8	1.8	1135.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
17	9900.00	89.08	179.91	100	8920.7	1235.8	-1235.8	2.0	1235.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
18	10000.00	89.08	179.91	100	8922.3	1335.8	-1335.8	2.2	1335.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
19	10100.00	89.08	179.91	100	8923.9	1435.8	-1435.8	2.3	1435.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
20	10200.00	89.08	179.91	100	8925.5	1535.8	-1535.8	2.5	1535.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
21	10300.00	89.08	179.91	100	8927.1	1635.8	-1635.8	2.6	1635.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
22	10400.00	89.08	179.91	100	8928.6	1735.8	-1735.8	2.8	1735.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
23	10500.00	89.08	179.91	100	8930.2	1835.8	-1835.8	3.0	1835.8	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
24	10600.00	89.08	179.91	100	8931.8	1935.7	-1935.7	3.1	1935.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
25	10700.00	89.08	179.91	100	8933.4	2035.7	-2035.7	3.3	2035.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
26	10800.00	89.08	179.91	100	8935.0	2135.7	-2135.7	3.5	2135.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
27	10900.00	89.08	179.91	100	8936.6	2235.7	-2235.7	3.6	2235.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
28	11000.00	89.08	179.91	100	8938.2	2335.7	-2335.7	3.8	2335.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
29	11100.00	89.08	179.91	100	8939.8	2435.7	-2435.7	3.9	2435.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
30	11200.00	89.08	179.91	100	8941.4	2535.7	-2535.7	4.1	2535.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
31	11300.00	89.08	179.91	100	8943.0	2635.7	-2635.6	4.3	2635.7	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
32	11400.00	89.08	179.91	100	8944.6	2735.6	-2735.6	4.4	2735.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
33	11500.00	89.08	179.91	100	8946.2	2835.6	-2835.6	4.6	2835.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
34	11600.00	89.08	179.91	100	8947.8	2935.6	-2935.6	4.7	2935.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
35	11700.00	89.08	179.91	100	8949.4	3035.6	-3035.6	4.9	3035.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
36	11800.00	89.08	179.91	100	8951.0	3135.6	-3135.6	5.1	3135.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
37	11900.00	89.08	179.91	100	8952.6	3235.6	-3235.6	5.2	3235.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
38	12000.00	89.08	179.91	100	8954.2	3335.6	-3335.6	5.4	3335.6	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
39	12100.00	89.08	179.91	100	8955.8	3435.5	-3435.5	5.6	3435.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
40	12200.00	89.08	179.91	100	8957.4	3535.5	-3535.5	5.7	3535.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
41	12300.00	89.08	179.91	100	8959.0	3635.5	-3635.5	5.9	3635.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
42	12400.00	89.08	179.91	100	8960.6	3735.5	-3735.5	6.0	3735.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
43	12500.00	89.08	179.91	100	8962.2	3835.5	-3835.5	6.2	3835.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
44	12600.00	89.08	179.91	100	8963.8	3935.5	-3935.5	6.4	3935.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
45	12700.00	89.08	179.91	100	8965.4	4035.5	-4035.5	6.5	4035.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
46	12800.00	89.08	179.91	100	8967.0	4135.5	-4135.5	6.7	4135.5	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
47	12900.00	89.08	179.91	100	8968.6	4235.4	-4235.4	6.8	4235.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
48	13000.00	89.08	179.91	100	8970.2	4335.4	-4335.4	7.0	4335.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
49	13100.00	89.08	179.91	100	8971.8	4435.4	-4435.4	7.2	4435.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
50	13200.00	89.08	179.91	100	8973.4	4535.4	-4535.4	7.3	4535.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
51	13300.00	89.08	179.91	100	8975.0	4635.4	-4635.4	7.5	4635.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
52	13400.00	89.08	179.91	100	8976.6	4735.4	-4735.4	7.7	4735.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
53	13500.00	89.08	179.91	100	8978.2	4835.4	-4835.4	7.8	4835.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
54	13600.00	89.08	179.91	100	8979.8	4935.4	-4935.4	8.0	4935.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
55	13619.03	89.08	179.91	19.03	8980.1	4954.4	-4954.4	8.0	4954.4	179.9	0.0	0.0	8900.9	9.1	1.55482	3.14 1E-10
56	13619.03	89.08	179.91	0	8980.1	4954.4	-4954.4	8.0	4954.4	179.9 #DIV/0!	#DIV/0!		8900.9	9.1	1.55482	3.14 1E-10

Well Name	Ruger 6 Fed Com 5H
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Estimated Survey Calculator

LP TVD		8910.00
PBH TVD		8980.00
BH North Offset		-4954.94
BH East Offset		8.01
Build Rate		10.00
Radius to 90 deg		572.96
KOP =		8337.04
LP/ Start Reach		563.81
BH Displacement from SL		4954.95
Lateral Length from 90 deg		4381.99
Lateral Length from LP		4391.14
Inclination		89.08
Azi		179.91
Calc LP North Offset		-563.81
Calc LP East Offset		0.91
Calc LP TVD		8910.00
Calc LP MD		9227.89
TD =		13619.03

Fill in the Blue Boxes

Yellow Boxes are Calculated

Survey Measured Drift Azimuth
No. Depth-ft (Deg.) (Deg.)

KOP	8337.04	0.00	179.91
1.00	8426.13	8.91	179.91
2.00	8515.21	17.82	179.91
3.00	8604.30	26.73	179.91
4.00	8693.38	35.63	179.91
5.00	8782.47	44.54	179.91
6.00	8871.55	53.45	179.91
7.00	8960.64	62.36	179.91
8.00	9049.72	71.27	179.91
9.00	9138.81	80.18	179.91
LP	10.00	9227.89	89.08
11.00	9300.00	89.08	179.91
12.00	9400.00	89.08	179.91
13.00	9500.00	89.08	179.91
14.00	9600.00	89.08	179.91
15.00	9700.00	89.08	179.91
16.00	9800.00	89.08	179.91
17.00	9900.00	89.08	179.91
18.00	10000.00	89.08	179.91
19.00	10100.00	89.08	179.91
20.00	10200.00	89.08	179.91
21.00	10300.00	89.08	179.91
22.00	10400.00	89.08	179.91
23.00	10500.00	89.08	179.91
24.00	10600.00	89.08	179.91
25.00	10700.00	89.08	179.91
26.00	10800.00	89.08	179.91
27.00	10900.00	89.08	179.91
28.00	11000.00	89.08	179.91
29.00	11100.00	89.08	179.91
30.00	11200.00	89.08	179.91
31.00	11300.00	89.08	179.91
32.00	11400.00	89.08	179.91
33.00	11500.00	89.08	179.91
34.00	11600.00	89.08	179.91
35.00	11700.00	89.08	179.91
36.00	11800.00	89.08	179.91
37.00	11900.00	89.08	179.91
38.00	12000.00	89.08	179.91
39.00	12100.00	89.08	179.91
40.00	12200.00	89.08	179.91
41.00	12300.00	89.08	179.91
42.00	12400.00	89.08	179.91
43.00	12500.00	89.08	179.91
44.00	12600.00	89.08	179.91
45.00	12700.00	89.08	179.91
46.00	12800.00	89.08	179.91
47.00	12900.00	89.08	179.91
48.00	13000.00	89.08	179.91
49.00	13100.00	89.08	179.91
50.00	13200.00	89.08	179.91
51.00	13300.00	89.08	179.91
52.00	13400.00	89.08	179.91
53.00	13500.00	89.08	179.91
54.00	13600.00	89.08	179.91
55.00	13619.03	89.08	179.91
56.00	13619.03	89.08	179.91

Horizontal Planning Worksheet

Well Name:		<i>Ruger 6 Fed Com 5H</i>	
Surface Location:		150 FNL & 1400 FWL	
State/ County		NM/Eddy	
S-T-R or Section-Block-Survey (Texas)		Section 6/ 20S/ 29E	
Elevation of SL			
Ground Level:		3297	
Height of KB:		18	
KB Elevation:		3315	
Landing Point			
Footing Calls		712 FNL & 1400 FWL Sec 6/20S/29E	
Subsea Depth		-5595	
TVD =		8910	
PBHL			
Footing Calls		330 FSL & 1400 FWL Sec 6/20S/29E	
Subsea Depth		-5665	
TVD =		8980	
Lateral Length:		4391.14	
Estimated KOP:		8337.04	
Est. Total Depth:		13619.03	

PBHL Offsets =	-4954.94	NS
	8.01	EW