

Preliminary Horizontal Planning Worksheet

Fill in the Blue Boxes Yellow Boxes are Calculated

11/30/2015

Well Name:		<i>Pavo Macho 31/32 B2DA Fed Com #1H</i>	
Surface Location:		660 FNL & 185 FWL	
State/ County		NM/Eddy	
S-T-R or Section-Block-Survey (Texas)		Section 31/ 18S/ 29E	
Target Formation:		2nd Bone Spring "C" Sand	
Elevation of SL			
Ground Level:	3418	Plat	
Height of KB:	27		
KB Elevation:	3445		
Landing Point			
Footing Calls	346 FNL & 665 FWL Sec 31/18S/29E		
Subsea Depth	-4118		
TVD =	7563		
PBHL			
Footing Calls	990 FNL & 330 FEL Sec 32/18S/29E		
Subsea Depth	-4247		
TVD =	7692		
Lateral Length:		9335.61	
Estimated KOP:		7085.54	
Est. Total Depth:		17164.54	

PBHL Offsets =	-318.72	NS
	9801.29	EW

Oil Conservation Division

Case No. 11 15419

Exhibit No.

Mewbourne Oil Company

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Macho 31/32 B2DA Fed Con
KOP 7085.54

SL: 150 FNL & 1400 FWL Sec 6-20S-29E
BHL: 330 FSL & 1400 FWL Sec 6-20S-29E

Target KBTVD: 7,563 Feet 7563.00
Target Angle: 89.21 Degrees 89.21
Section Plane: 91.86 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 RADIANT (RADIANS)	AZIMUTH (RADIANS)
T/I	7085.54	0.00	91.86	N/A	7085.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7085.5	477.5	1E-12	1.60 #VALUE!
1	7159.87	8.92	91.86	74.34	7159.6	5.8	-0.2	5.8	5.8	91.9	12.0	12.0	7159.5	403.5	0.155697	1.60 0.1556969
2	7234.21	17.84	91.86	74.34	7231.8	23.0	-0.7	23.0	23.0	91.9	12.0	12.0	7231.5	331.5	0.311394	1.60 0.1556969
3	7308.55	26.76	91.86	74.34	7300.5	51.1	-1.7	51.1	51.1	91.9	12.0	12.0	7299.8	263.2	0.467091	1.60 0.1556969
4	7382.89	35.68	91.86	74.34	7364.0	89.6	-2.9	89.6	89.6	91.9	12.0	12.0	7362.8	200.2	0.622788	1.60 0.1556969
5	7457.23	44.60	91.86	74.34	7420.8	137.5	-4.5	137.4	137.5	91.9	12.0	12.0	7418.9	144.1	0.778485	1.60 0.1556969
6	7531.57	53.52	91.86	74.34	7469.5	193.6	-6.3	193.5	193.6	91.9	12.0	12.0	7466.8	96.2	0.934182	1.60 0.1556969
7	7605.91	62.45	91.86	74.34	7508.8	256.6	-8.3	256.5	256.6	91.9	12.0	12.0	7505.3	57.7	1.089879	1.60 0.1556969
8	7680.25	71.37	91.86	74.34	7538.0	324.9	-10.6	324.7	324.9	91.9	12.0	12.0	7533.5	29.5	1.245575	1.60 0.1556969
9	7754.59	80.29	91.86	74.34	7556.2	396.9	-12.9	396.7	396.9	91.9	12.0	12.0	7550.7	12.3	1.401272	1.60 0.1556969
10	7828.93	89.21	91.86	74.34	7563.0	470.9	-15.3	470.6	470.9	91.9	12.0	12.0	7556.4	6.6	1.556969	1.60 0.1556969
11	7900.00	89.21	91.86	71.067	7563.9	541.9	-17.6	541.6	541.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
12	8000.00	89.21	91.86	100	7565.3	641.9	-20.9	641.6	641.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
13	8100.00	89.21	91.86	100	7566.7	741.9	-24.1	741.5	741.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
14	8200.00	89.21	91.86	100	7568.1	841.9	-27.4	841.4	841.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
15	8300.00	89.21	91.86	100	7569.5	941.9	-30.6	941.4	941.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
16	8400.00	89.21	91.86	100	7570.9	1041.9	-33.9	1041.3	1041.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
17	8500.00	89.21	91.86	100	7572.2	1141.9	-37.1	1141.3	1141.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
18	8600.00	89.21	91.86	100	7573.6	1241.9	-40.4	1241.2	1241.9	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
19	8700.00	89.21	91.86	100	7575.0	1341.8	-43.6	1341.1	1341.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
20	8800.00	89.21	91.86	100	7576.4	1441.8	-46.9	1441.1	1441.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
21	8900.00	89.21	91.86	100	7577.8	1541.8	-50.1	1541.0	1541.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
22	9000.00	89.21	91.86	100	7579.1	1641.8	-53.4	1641.0	1641.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
23	9100.00	89.21	91.86	100	7580.5	1741.8	-56.6	1740.9	1741.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
24	9200.00	89.21	91.86	100	7581.9	1841.8	-59.9	1840.8	1841.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
25	9300.00	89.21	91.86	100	7583.3	1941.8	-63.1	1940.8	1941.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
26	9400.00	89.21	91.86	100	7584.7	2041.8	-66.4	2040.7	2041.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
27	9500.00	89.21	91.86	100	7586.1	2141.8	-69.6	2140.6	2141.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
28	9600.00	89.21	91.86	100	7587.4	2241.8	-72.9	2240.6	2241.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
29	9700.00	89.21	91.86	100	7588.8	2341.8	-76.1	2340.5	2341.8	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
30	9800.00	89.21	91.86	100	7590.2	2441.7	-79.4	2440.5	2441.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
31	9900.00	89.21	91.86	100	7591.6	2541.7	-82.6	2540.4	2541.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
32	10000.00	89.21	91.86	100	7593.0	2641.7	-85.9	2640.3	2641.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
33	10100.00	89.21	91.86	100	7594.4	2741.7	-89.1	2740.3	2741.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
34	10200.00	89.21	91.86	100	7595.7	2841.7	-92.4	2840.2	2841.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
35	10300.00	89.21	91.86	100	7597.1	2941.7	-95.6	2940.1	2941.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
36	10400.00	89.21	91.86	100	7598.5	3041.7	-98.9	3040.1	3041.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
37	10500.00	89.21	91.86	100	7599.9	3141.7	-102.1	3140.0	3141.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
38	10600.00	89.21	91.86	100	7601.3	3241.7	-105.4	3240.0	3241.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
39	10700.00	89.21	91.86	100	7602.7	3341.7	-108.6	3339.9	3341.7	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
40	10800.00	89.21	91.86	100	7604.0	3441.6	-111.9	3439.8	3441.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10
41	10900.00	89.21	91.86	100	7605.4	3541.6	-115.1	3539.8	3541.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60 1E-10

42	11000.00	89.21	91.86	100	7606.8	3641.6	-118.4	3639.7	3641.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
43	11100.00	89.21	91.86	100	7608.2	3741.6	-121.6	3739.6	3741.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
44	11200.00	89.21	91.86	100	7609.6	3841.6	-124.9	3839.6	3841.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
45	11300.00	89.21	91.86	100	7610.9	3941.6	-128.1	3939.5	3941.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
46	11400.00	89.21	91.86	100	7612.3	4041.6	-131.4	4039.5	4041.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
47	11500.00	89.21	91.86	100	7613.7	4141.6	-134.6	4139.4	4141.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
48	11600.00	89.21	91.86	100	7615.1	4241.6	-137.9	4239.3	4241.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
49	11700.00	89.21	91.86	100	7616.5	4341.6	-141.1	4339.3	4341.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
50	11800.00	89.21	91.86	100	7617.9	4441.6	-144.4	4439.2	4441.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
51	11900.00	89.21	91.86	100	7619.2	4541.5	-147.6	4539.1	4541.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
52	12000.00	89.21	91.86	100	7620.6	4641.5	-150.9	4639.1	4641.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
53	12100.00	89.21	91.86	100	7622.0	4741.5	-154.1	4739.0	4741.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
54	12200.00	89.21	91.86	100	7623.4	4841.5	-157.4	4839.0	4841.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
55	12300.00	89.21	91.86	100	7624.8	4941.5	-160.6	4938.9	4941.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
56	12400.00	89.21	91.86	100	7626.2	5041.5	-163.9	5038.8	5041.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
57	12500.00	89.21	91.86	100	7627.5	5141.5	-167.1	5138.8	5141.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
58	12600.00	89.21	91.86	100	7628.9	5241.5	-170.4	5238.7	5241.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
59	12700.00	89.21	91.86	100	7630.3	5341.5	-173.6	5338.6	5341.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
60	12800.00	89.21	91.86	100	7631.7	5441.5	-176.9	5438.6	5441.5	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
61	12900.00	89.21	91.86	100	7633.1	5541.4	-180.1	5538.5	5541.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
62	13000.00	89.21	91.86	100	7634.5	5641.4	-183.4	5638.5	5641.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
63	13100.00	89.21	91.86	100	7635.8	5741.4	-186.6	5738.4	5741.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
64	13200.00	89.21	91.86	100	7637.2	5841.4	-189.9	5838.3	5841.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
65	13300.00	89.21	91.86	100	7638.6	5941.4	-193.1	5938.3	5941.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
66	13400.00	89.21	91.86	100	7640.0	6041.4	-196.4	6038.2	6041.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
67	13500.00	89.21	91.86	100	7641.4	6141.4	-199.6	6138.1	6141.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
68	13600.00	89.21	91.86	100	7642.7	6241.4	-202.9	6238.1	6241.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
69	13700.00	89.21	91.86	100	7644.1	6341.4	-206.1	6338.0	6341.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
70	13800.00	89.21	91.86	100	7645.5	6441.4	-209.4	6438.0	6441.4	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
71	13900.00	89.21	91.86	100	7646.9	6541.3	-212.6	6537.9	6541.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
72	14000.00	89.21	91.86	100	7648.3	6641.3	-215.9	6637.8	6641.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
73	14100.00	89.21	91.86	100	7649.7	6741.3	-219.1	6737.8	6741.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
74	14200.00	89.21	91.86	100	7651.0	6841.3	-222.3	6837.7	6841.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
75	14300.00	89.21	91.86	100	7652.4	6941.3	-225.6	6937.6	6941.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
76	14400.00	89.21	91.86	100	7653.8	7041.3	-228.8	7037.6	7041.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
77	14500.00	89.21	91.86	100	7655.2	7141.3	-232.1	7137.5	7141.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
78	14600.00	89.21	91.86	100	7656.6	7241.3	-235.3	7237.5	7241.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
79	14700.00	89.21	91.86	100	7658.0	7341.3	-238.6	7337.4	7341.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
80	14800.00	89.21	91.86	100	7659.3	7441.3	-241.8	7437.3	7441.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
81	14900.00	89.21	91.86	100	7660.7	7541.3	-245.1	7537.3	7541.3	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
82	15000.00	89.21	91.86	100	7662.1	7641.2	-248.3	7637.2	7641.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
83	15100.00	89.21	91.86	100	7663.5	7741.2	-251.6	7737.1	7741.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
84	15200.00	89.21	91.86	100	7664.9	7841.2	-254.8	7837.1	7841.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
85	15300.00	89.21	91.86	100	7666.3	7941.2	-258.1	7937.0	7941.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
86	15400.00	89.21	91.86	100	7667.6	8041.2	-261.3	8037.0	8041.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
87	15500.00	89.21	91.86	100	7669.0	8141.2	-264.6	8136.9	8141.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
88	15600.00	89.21	91.86	100	7670.4	8241.2	-267.8	8236.8	8241.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
89	15700.00	89.21	91.86	100	7671.8	8341.2	-271.1	8336.8	8341.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
90	15800.00	89.21	91.86	100	7673.2	8441.2	-274.3	8436.7	8441.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
91	15900.00	89.21	91.86	100	7674.5	8541.2	-277.6	8536.6	8541.2	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
92	16000.00	89.21	91.86	100	7675.9	8641.1	-280.8	8636.6	8641.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
93	16100.00	89.21	91.86	100	7677.3	8741.1	-284.1	8736.5	8741.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
94	16200.00	89.21	91.86	100	7678.7	8841.1	-287.3	8836.5	8841.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
95	16300.00	89.21	91.86	100	7680.1	8941.1	-290.6	8936.4	8941.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
96	16400.00	89.21	91.86	100	7681.5	9041.1	-293.8	9036.3	9041.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
97	16500.00	89.21	91.86	100	7682.8	9141.1	-297.1	9136.3	9141.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
98	16600.00	89.21	91.86	100	7684.2	9241.1	-300.3	9236.2	9241.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
99	16700.00	89.21	91.86	100	7685.6	9341.1	-303.6	9336.1	9341.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
100	16800.00	89.21	91.86	100	7687.0	9441.1	-306.8	9436.1	9441.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
101	16900.00	89.21	91.86	100	7688.4	9541.1	-310.1	9536.0	9541.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
102	17000.00	89.21	91.86	100	7689.8	9641.1	-313.3	9636.0	9641.1	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
103	17100.00	89.21	91.86	100	7691.1	9741.0	-316.6	9735.9	9741.0	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10
104	17164.54	89.21	91.86	64.541	7692.0	9805.6	-318.7	9800.4	9805.6	91.9	0.0	0.0	7556.4	6.6	1.556969	1.60	1E-10