STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

APPLICATIONS OF MEWBOURNE OIL COMPANY FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO. **Case Nos. 22235 - 22240**

SELF-AFFIRMED STATEMENT OF CHARLES CROSBY

COUNTY OF MIDLAND)
) ss.
STATE OF TEXAS)

Charles Crosby deposes and states:

1. I am over the age of 18, and have personal knowledge of the matters stated herein.

2. I am a geologist for Mewbourne Oil Company ("Mewbourne"), and I am familiar with the geological matters involved in these cases. I have not testified before the Division as a petroleum geologist.

3. In these cases Mewbourne seeks to pool, collectively, all of Sections 1 and 2, Township 20 South, Range 28 East, NMPM as to both the Bone Spring and Wolfcamp formations.

4. The following geological plats are attached hereto:

(a) Attachment A is a structure map on the base of the Second Bone Spring Sand. It shows that structure dips gently to the east. It also shows Second Bone Spring wells in the area, and a line of cross-section.

(b) Attachment B is a Second Bone Spring Sand Gross Thickness Isopach, which is the target zone for some of the proposed wells.

(c) Attachment C is a cross section of the Second Bone Spring Sand. The well logs on the cross-section give a representative sample of the Second Bone Spring Sand in this area. The sand is continuous and uniformly thick across the well units Second Bone Spring Sand.

(d) Attachment D is a Third Bone Spring Sand Gross Thickness Isopach, which is the target zone for some of the proposed wells.

EXHIBIT 3

(e) Attachment E is a cross section of the Third Bone Spring Sand and Upper Wolfcamp. The well logs on the cross-section give a representative sample of the subject zones in this area. The zones are continuous and uniformly thick across the well units in the Third Bone Spring Sand and the Upper Wolfcamp.

(f) Attachment F contains top of the Wolfcamp structure maps applicable to the Third Bone Spring Sand and Upper Wolfcamp. Structure dips slightly to the east-southeast.

5. I conclude from the maps that:

(a) The horizontal spacing units are justified from a geologic standpoint.

(b) The target zones are continuous and of relatively uniform thickness across the well units.

(c) Each quarter-quarter section in each in the Bone Spring and Wolfcamp well units will contribute more or less equally to production from the target zones.

(d) There is no faulting or other geologic impediment in the area which will affect the drilling of the subject wells.

6. Attachment G contains information from Second and Third Bone Spring Sand, and Wolfcamp, wells drilled in this area. Laydown wells are the preferred orientation for wells in this area.

7. Attachment H contains the horizontal drilling plans for the proposed wells. The producing intervals of the wells will be orthodox.

8. I understand that this Self-Affirmed Statement will be used as written testimony in these cases. I affirm that my testimony in paragraphs 1 through 7 above is true and correct and is made under penalty of perjury under the laws of the State of New Mexico. My testimony is made as of the date handwritten next to my signature below.

Date: March 15, 2022

Chareles Crsoby
Charles Crosby

ATTACHMENT
A
Horizontal Activity Color Code
2nd Bone Spring Sand
Proposed Horizontal
TD
Mewbourne Oil Company
Desert Eagle ½ Area
Horizontal Activity Map
Base 2nd BSPG Sd Structure (C.I. 100')
12/13/21
Eddy County
New Mexico
Wells TD < 6000' filtered out
Geol: C. Crosby
1:38000
2150
0
2150
4300
6450 us ft
4500
4400
4300
4200
31
36
35
34
6
7
12
13
2
11
3
10
15

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ATTACHMENT B

Horizontal Activity Color Code

2nd Bone Spring Sand

Proposed Horizontal

TD

Mewbourne Oil Company

Desert Eagle ½ Area
Horizontal Activity Map
Base 2nd BSPG Sd ~~Structure~~ (C.I. 100')
Gross Isopach

12/13/21	Eddy County	New Mexico
	Wells TD < 6000' filtered out	Geol: C. Crosby

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ATTACHMENT C

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ATTACHMENT D

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Desert Eagle 1/2 Area 3rd BSPG SD and WFMP SD Cross Section Exhibit (A-A')

ATTACHMENT E

ATTACHMENT f

Horizontal Activity Color Code
3rd Bone Spring Sand
Wolfcamp Sand
Proposed Horizontal
TD
Mewbourne Oil Company
Desert Eagle ½ Area
Horizontal Activity Map
Top WFMP Structure (C.I. 100')
12/13/21
Eddy County
New Mexico
Wells TD < 6000' filtered out
Geol: C. Crosby
1:38000
2150
0
2150
4300
6450 us ft
A
A'
-5400
-5500
-5600
-5700
31
36
35
34
6
7
1
2
12
11
10
13
15

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Desert Eagle 1/2 Area Horizontal Production Table

Well Name	Operator	API	Location	Completion Date	Cum Oil (Mbo)	Cum Gas (Bcf)	Cum Water (Mbw)	NS/EW	Production Zone
Chaparral State 20	Devon	30015391580000	32C/19S/29E	7/5/2012	78.6	0.42	96.5	NS	2nd Bone Spring Sand
Derringer 18 Federal Com 2H	Mewbourne	30015397580000	18E/20S/29E	1/23/2013	129.8	0.48	284.8	EW	2nd Bone Spring Sand
Chaparral State 21H	Devon	30015399550000	32D/19S/29E	8/26/2012	98.6	0.60	258.7	NS	2nd Bone Spring Sand
Government AC 13 Federal 5H	OXY	30015408800000	13E/20S/28E	12/8/2014	168.0	0.60	915.4	EW	2nd Bone Spring Sand
Thompson 8 Federal 2H	Mewbourne	30015392950000	8A/20S/29E	7/1/2012	184.3	0.68	311.0	EW	2nd Bone Spring Sand
Henry 8 IL Federal 1H	Mewbourne	30015417810000	8I/20S/29E	2/15/2014	73.1	0.31	260.7	EW	2nd Bone Spring Sand
Henry 8 PM Federal Com 1H	Mewbourne	30015419550000	8P/20S/29E	5/16/2014	121.5	0.52	403.6	EW	2nd Bone Spring Sand
Winchester 36 AD State 1H	Mewbourne	30015413540000	36A/19S/28E	9/9/2013	100.1	0.38	163.4	EW	2nd Bone Spring Sand
Derringer 18 DA Federal 1H	Mewbourne	30015414310000	18D/20S/29E	9/4/2013	113.1	0.56	306.4	EW	2nd Bone Spring Sand
Winchester 36 HE State 1H	Mewbourne	30015417470000	36H/19S/28E	4/26/2014	109.4	0.35	200.1	EW	2nd Bone Spring Sand
Ruger 31 DA Federal Com 1H	Mewbourne	30015419520000	31D/19S/29E	4/9/2014	199.2	0.93	162.4	EW	2nd Bone Spring Sand
Ruger 31 B2EH Federal 1H	Mewbourne	30015424740000	31E/19S/29E	12/20/2014	104.7	0.30	103.8	EW	2nd Bone Spring Sand
Winchester 36 B2LI State 1H	Mewbourne	30015426060000	36L/19S/28E	3/23/2015	75.5	0.28	156.4	EW	2nd Bone Spring Sand
Dawson 34 Federal Com 124H	Colgate	30015476030000	34P/19S/28E	2/1/2021	261.9	0.84	438.9	EW	2nd Bone Spring Sand
Dawson 34 Federal Com 123H	Colagte	30015477040000	34I/19S/28E	Pending				EW	2nd Bone Spring Sand
Ruger 6 Federal Com 3H	Mewbourne	30015371980000	6B/20S/29E	7/14/2011	128.3	0.55	76.3	NS	3rd Bone Spring Sand
Ruger 6 Federal Com 4H	Mewbourne	30015396860000	6A/20S/29E	3/25/2012	92.8	0.25	78.7	NS	3rd Bone Spring Sand
Ruger 31 MP Federal 1H	Mewbourne	30015402420000	31M/19S/29E	5/10/2013	114.5	0.81	155.8	EW	3rd Bone Spring Sand
Ruger 31 LI Federal 1H	Mewbourne	30015416790000	31L/19S/29E	8/24/2014	85.5	0.39	117.1	EW	3rd Bone Spring Sand
Ruger 31 B3EH Federal 2H	Mewbourne	30015425950000	31E/19S/29E	12/13/2014	209.3	1.10	198.7	EW	3rd Bone Spring Sand
Derringer 18 B3DA Fed 2H	Mewbourne	30015429690000	18D/20S/29E	9/10/2015	256.4	1.40	379.9	EW	3rd Bone Spring Sand
Ruger 31 B3DA Federal 2H	Mewbourne	30015430630000	31D/19S/29E	7/30/2015	298.9	1.70	227.1	EW	3rd Bone Spring Sand
Charlie Chocolate 14/15 Federal Com 31H	OXY	30015431230100	14A/20S/28E	10/5/2019	97.2	0.33	453.7	EW	3rd Bone Spring Sand
Derringer 18 B3EH Federal 2H	Mewbourne	30015435780000	18E/20S/29E	5/24/2017	257.8	0.80	498.9	EW	3rd Bone Spring Sand
Glock 17/16 B3DA Federal Com 2H	Mewbourne	30015457940000	18/20S/29E	8/24/2019	280.4	0.62	738.8	EW	3rd Bone Spring Sand
Derringer 18 B2EH Federal 2H	Mewbourne	30015435780000	18E/20S/29E	5/24/2017	257.8	0.80	498.9	EW	3rd Bone Spring Sand
Uraninite 32/33 State Federal 334H	Devon	30015468190000	32M/19S/29E	10/22/2020	159.8	0.39	205.9	EW	3rd Bone Spring Sand
Uraninite 32/33 State Federal 335H	Devon	30015468200000	32M/19S/29E	10/1/2020	141.4	0.43	234.4	EW	3rd Bone Spring Sand
Uraninite 32/33 State Federal 332H	Devon	30015468400000	32D/19S/29E	10/19/2020	153.3	0.36	214.4	EW	3rd Bone Spring Sand
Uraninite 32/33 State Federal Com 333H	Devon	30015468410000	32D/19S/29E	10/31/2020	97.1	0.24	247.1	EW	3rd Bone Spring Sand
Dawson 34 Federal Com 134H	Colgate	30015476040000	34P/19S/28E	2/13/2021	166.6	0.64	412.2	EW	3rd Bone Spring Sand
Glock 17/16 W0DA Federal Com 3H	Mewbourne	30015434110000	18A/20S/29E	8/1/2019	406.7	1.12	554.3	EW	Wolfcamp Sand

ATTACHMENT G

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B2IL Fed Com 1H
KOP 7145.04
SL: 1260 FSL & 205 FEL; Sec 1P/20S/28E
PBHL: 1310 FSL & 100 FWL; Sec 2M/20S/28E

Target KBTVD:	7,718	Feet	7718.00
Target Angle:	91.47	Degrees	91.47
Section Plane:	270.36	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	7145.04	0.00	270.36	N/A	7145.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7145.0	573.0	1E-12	4.72 #VALUE!
1	7236.51	9.15	270.36	91.468	7236.1	7.3	0.0	-7.3	7.3	270.4	10.0	10.0	7236.3	481.7	0.15964	4.72 0.1596414
2	7327.98	18.29	270.36	91.468	7324.9	29.0	0.2	-29.0	29.0	270.4	10.0	10.0	7325.6	392.4	0.31928	4.72 0.1596414
3	7419.45	27.44	270.36	91.468	7409.1	64.5	0.4	-64.5	64.5	270.4	10.0	10.0	7410.7	307.3	0.47892	4.72 0.1596414
4	7510.91	36.59	270.36	91.468	7486.6	112.9	0.7	-112.9	112.9	270.4	10.0	10.0	7489.4	228.6	0.63857	4.72 0.1596414
5	7602.38	45.73	270.36	91.468	7555.3	173.0	1.1	-173.0	173.0	270.4	10.0	10.0	7559.8	158.2	0.79821	4.72 0.1596414
6	7693.85	54.88	270.36	91.468	7613.7	243.3	1.5	-243.3	243.3	270.4	10.0	10.0	7619.9	98.1	0.95785	4.72 0.1596414
7	7785.32	64.03	270.36	91.468	7660.1	322.0	2.0	-322.0	322.0	270.4	10.0	10.0	7668.4	49.6	1.11749	4.72 0.1596414
8	7876.78	73.17	270.36	91.468	7693.5	407.1	2.6	-407.1	407.1	270.4	10.0	10.0	7703.9	14.1	1.27713	4.72 0.1596414
9	7968.25	82.32	270.36	91.468	7712.9	496.4	3.1	-496.4	496.4	270.4	10.0	10.0	7725.6	-7.6	1.43677	4.72 0.1596414
10	8059.72	91.47	270.36	91.468	7717.8	587.6	3.7	-587.6	587.6	270.4	10.0	10.0	7732.9	-14.9	1.59641	4.72 0.1596414
11	8100.00	91.47	270.36	40.28	7716.8	627.9	3.9	-627.9	627.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
12	8200.00	91.47	270.36	100	7714.2	727.9	4.6	-727.9	727.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
13	8300.00	91.47	270.36	100	7711.7	827.8	5.2	-827.8	827.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
14	8400.00	91.47	270.36	100	7709.1	927.8	5.8	-927.8	927.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
15	8500.00	91.47	270.36	100	7706.5	1027.8	6.4	-1027.7	1027.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
16	8600.00	91.47	270.36	100	7704.0	1127.7	7.1	-1127.7	1127.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
17	8700.00	91.47	270.36	100	7701.4	1227.7	7.7	-1227.7	1227.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
18	8800.00	91.47	270.36	100	7698.8	1327.7	8.3	-1327.6	1327.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
19	8900.00	91.47	270.36	100	7696.3	1427.6	9.0	-1427.6	1427.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
20	9000.00	91.47	270.36	100	7693.7	1527.6	9.6	-1527.6	1527.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
21	9100.00	91.47	270.36	100	7691.2	1627.6	10.2	-1627.5	1627.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
22	9200.00	91.47	270.36	100	7688.6	1727.5	10.8	-1727.5	1727.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
23	9300.00	91.47	270.36	100	7686.0	1827.5	11.5	-1827.5	1827.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
24	9400.00	91.47	270.36	100	7683.5	1927.5	12.1	-1927.4	1927.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
25	9500.00	91.47	270.36	100	7680.9	2027.4	12.7	-2027.4	2027.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
26	9600.00	91.47	270.36	100	7678.4	2127.4	13.3	-2127.4	2127.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
27	9700.00	91.47	270.36	100	7675.8	2227.4	14.0	-2227.3	2227.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
28	9800.00	91.47	270.36	100	7673.2	2327.3	14.6	-2327.3	2327.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
29	9900.00	91.47	270.36	100	7670.7	2427.3	15.2	-2427.3	2427.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
30	10000.00	91.47	270.36	100	7668.1	2527.3	15.8	-2527.2	2527.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
31	10100.00	91.47	270.36	100	7665.5	2627.2	16.5	-2627.2	2627.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
32	10200.00	91.47	270.36	100	7663.0	2727.2	17.1	-2727.2	2727.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
33	10300.00	91.47	270.36	100	7660.4	2827.2	17.7	-2827.1	2827.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
34	10400.00	91.47	270.36	100	7657.9	2927.1	18.4	-2927.1	2927.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
35	10500.00	91.47	270.36	100	7655.3	3027.1	19.0	-3027.1	3027.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
36	10600.00	91.47	270.36	100	7652.7	3127.1	19.6	-3127.0	3127.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
37	10700.00	91.47	270.36	100	7650.2	3227.0	20.2	-3227.0	3227.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
38	10800.00	91.47	270.36	100	7647.6	3327.0	20.9	-3326.9	3327.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
39	10900.00	91.47	270.36	100	7645.1	3427.0	21.5	-3426.9	3427.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
40	11000.00	91.47	270.36	100	7642.5	3526.9	22.1	-3526.9	3526.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
41	11100.00	91.47	270.36	100	7639.9	3626.9	22.7	-3626.8	3626.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
42	11200.00	91.47	270.36	100	7637.4	3726.9	23.4	-3726.8	3726.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
43	11300.00	91.47	270.36	100	7634.8	3826.9	24.0	-3826.8	3826.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
44	11400.00	91.47	270.36	100	7632.3	3926.8	24.6	-3926.7	3926.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
45	11500.00	91.47	270.36	100	7629.7	4026.8	25.2	-4026.7	4026.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
46	11600.00	91.47	270.36	100	7627.1	4126.8	25.9	-4126.7	4126.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
47	11700.00	91.47	270.36	100	7624.6	4226.7	26.5	-4226.6	4226.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
48	11800.00	91.47	270.36	100	7622.0	4326.7	27.1	-4326.6	4326.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
49	11900.00	91.47	270.36	100	7619.4	4426.7	27.8	-4426.6	4426.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
50	12000.00	91.47	270.36	100	7616.9	4526.6	28.4	-4526.5	4526.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
51	12100.00	91.47	270.36	100	7614.3	4626.6	29.0	-4626.5	4626.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
52	12200.00	91.47	270.36	100	7611.8	4726.6	29.6	-4726.5	4726.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
53	12300.00	91.47	270.36	100	7609.2	4826.5	30.3	-4826.4	4826.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
54	12400.00	91.47	270.36	100	7606.6	4926.5	30.9	-4926.4	4926.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
55	12500.00	91.47	270.36	100	7604.1	5026.5	31.5	-5026.4	5026.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10
56	12600.00	91.47	270.36	100	7601.5	5126.4	32.1	-5126.3	5126.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72 1E-10

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57	12700.00	91.47	270.36	100	7599.0	5226.4	32.8	-5226.3	5226.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
58	12800.00	91.47	270.36	100	7596.4	5326.4	33.4	-5326.3	5326.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
59	12900.00	91.47	270.36	100	7593.8	5426.3	34.0	-5426.2	5426.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
60	13000.00	91.47	270.36	100	7591.3	5526.3	34.6	-5526.2	5526.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
61	13100.00	91.47	270.36	100	7588.7	5626.3	35.3	-5626.1	5626.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
62	13200.00	91.47	270.36	100	7586.1	5726.2	35.9	-5726.1	5726.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
63	13300.00	91.47	270.36	100	7583.6	5826.2	36.5	-5826.1	5826.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
64	13400.00	91.47	270.36	100	7581.0	5926.2	37.2	-5926.0	5926.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
65	13500.00	91.47	270.36	100	7578.5	6026.1	37.8	-6026.0	6026.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
66	13600.00	91.47	270.36	100	7575.9	6126.1	38.4	-6126.0	6126.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
67	13700.00	91.47	270.36	100	7573.3	6226.1	39.0	-6225.9	6226.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
68	13800.00	91.47	270.36	100	7570.8	6326.0	39.7	-6325.9	6326.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
69	13900.00	91.47	270.36	100	7568.2	6426.0	40.3	-6425.9	6426.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
70	14000.00	91.47	270.36	100	7565.7	6526.0	40.9	-6525.8	6526.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
71	14100.00	91.47	270.36	100	7563.1	6625.9	41.5	-6625.8	6625.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
72	14200.00	91.47	270.36	100	7560.5	6725.9	42.2	-6725.8	6725.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
73	14300.00	91.47	270.36	100	7558.0	6825.9	42.8	-6825.7	6825.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
74	14400.00	91.47	270.36	100	7555.4	6925.8	43.4	-6925.7	6925.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
75	14500.00	91.47	270.36	100	7552.8	7025.8	44.0	-7025.7	7025.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
76	14600.00	91.47	270.36	100	7550.3	7125.8	44.7	-7125.6	7125.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
77	14700.00	91.47	270.36	100	7547.7	7225.7	45.3	-7225.6	7225.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
78	14800.00	91.47	270.36	100	7545.2	7325.7	45.9	-7325.6	7325.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
79	14900.00	91.47	270.36	100	7542.6	7425.7	46.6	-7425.5	7425.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
80	15000.00	91.47	270.36	100	7540.0	7525.6	47.2	-7525.5	7525.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
81	15100.00	91.47	270.36	100	7537.5	7625.6	47.8	-7625.5	7625.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
82	15200.00	91.47	270.36	100	7534.9	7725.6	48.4	-7725.4	7725.6	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
83	15300.00	91.47	270.36	100	7532.4	7825.5	49.1	-7825.4	7825.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
84	15400.00	91.47	270.36	100	7529.8	7925.5	49.7	-7925.3	7925.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
85	15500.00	91.47	270.36	100	7527.2	8025.5	50.3	-8025.3	8025.5	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
86	15600.00	91.47	270.36	100	7524.7	8125.4	50.9	-8125.3	8125.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
87	15700.00	91.47	270.36	100	7522.1	8225.4	51.6	-8225.2	8225.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
88	15800.00	91.47	270.36	100	7519.5	8325.4	52.2	-8325.2	8325.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
89	15900.00	91.47	270.36	100	7517.0	8425.3	52.8	-8425.2	8425.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
90	16000.00	91.47	270.36	100	7514.4	8525.3	53.4	-8525.1	8525.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
91	16100.00	91.47	270.36	100	7511.9	8625.3	54.1	-8625.1	8625.3	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
92	16200.00	91.47	270.36	100	7509.3	8725.2	54.7	-8725.1	8725.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
93	16300.00	91.47	270.36	100	7506.7	8825.2	55.3	-8825.0	8825.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
94	16400.00	91.47	270.36	100	7504.2	8925.2	56.0	-8925.0	8925.2	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
95	16500.00	91.47	270.36	100	7501.6	9025.1	56.6	-9025.0	9025.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
96	16600.00	91.47	270.36	100	7499.1	9125.1	57.2	-9124.9	9125.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
97	16700.00	91.47	270.36	100	7496.5	9225.1	57.8	-9224.9	9225.1	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
98	16800.00	91.47	270.36	100	7493.9	9325.0	58.5	-9324.9	9325.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
99	16900.00	91.47	270.36	100	7491.4	9425.0	59.1	-9424.8	9425.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
100	17000.00	91.47	270.36	100	7488.8	9525.0	59.7	-9524.8	9525.0	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
101	17100.00	91.47	270.36	100	7486.2	9624.9	60.3	-9624.8	9624.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
102	17200.00	91.47	270.36	100	7483.7	9724.9	61.0	-9724.7	9724.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
103	17300.00	91.47	270.36	100	7481.1	9824.9	61.6	-9824.7	9824.9	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
104	17400.00	91.47	270.36	100	7478.6	9924.8	62.2	-9924.7	9924.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
105	17500.00	91.47	270.36	100	7476.0	10024.8	62.8	-10024.6	10024.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
106	17600.00	91.47	270.36	100	7473.4	10124.8	63.5	-10124.6	10124.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
107	17700.00	91.47	270.36	100	7470.9	10224.8	64.1	-10224.5	10224.8	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
108	17800.00	91.47	270.36	100	7468.3	10324.7	64.7	-10324.5	10324.7	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10
109	17801.69	91.47	270.36	1.689	7468.3	10326.4	64.7	-10326.2	10326.4	270.4	0.0	0.0	7732.9	-14.9	1.59641	4.72	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B3IL Fed Com 1H
KOP 8411.54
SL: 1290 FSL & 205 FEL; Sec 1P/20S/28E
PBHL: 2200 FSL & 100 FWL; Sec 2L/20S/28E

Target KBTVD: 8,889 Feet 8889.00
Target Angle: 90.89 Degrees 90.89
Section Plane: 275.12 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	8411.54	0.00	275.12	N/A	8411.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8411.5	477.5	1E-12	4.80	#VALUE!
1	8487.28	9.09	275.12	75.744	8487.0	6.0	0.5	-6.0	6.0	275.1	12.0	12.0	8487.1	401.9	0.15864	4.80	0.158637
2	8563.02	18.18	275.12	75.744	8560.5	23.8	2.1	-23.7	23.8	275.1	12.0	12.0	8560.9	328.1	0.31727	4.80	0.158637
3	8638.77	27.27	275.12	75.744	8630.3	53.1	4.7	-52.8	53.1	275.1	12.0	12.0	8631.1	257.9	0.47591	4.80	0.158637
4	8714.51	36.36	275.12	75.744	8694.6	92.9	8.3	-92.6	92.9	275.1	12.0	12.0	8696.0	193.0	0.63455	4.80	0.158637
5	8790.25	45.45	275.12	75.744	8751.8	142.5	12.7	-141.9	142.5	275.1	12.0	12.0	8754.0	135.0	0.79319	4.80	0.158637
6	8866.00	54.54	275.12	75.744	8800.4	200.4	17.9	-199.6	200.4	275.1	12.0	12.0	8803.5	85.5	0.95182	4.80	0.158637
7	8941.74	63.62	275.12	75.744	8839.3	265.4	23.7	-264.3	265.4	275.1	12.0	12.0	8843.4	45.6	1.11046	4.80	0.158637
8	9017.48	72.71	275.12	75.744	8867.4	335.6	29.9	-334.3	335.6	275.1	12.0	12.0	8872.7	16.3	1.2691	4.80	0.158637
9	9093.23	81.80	275.12	75.744	8884.1	409.4	36.5	-407.8	409.4	275.1	12.0	12.0	8890.5	-1.5	1.42773	4.80	0.158637
10	9168.97	90.89	275.12	75.744	8888.9	484.9	43.3	-483.0	484.9	275.1	12.0	12.0	8896.5	-7.5	1.58637	4.80	0.158637
11	9200.00	90.89	275.12	31.029	8888.5	515.9	46.0	-513.9	515.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
12	9300.00	90.89	275.12	100	8886.9	615.9	55.0	-613.5	615.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
13	9400.00	90.89	275.12	100	8885.3	715.9	63.9	-713.0	715.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
14	9500.00	90.89	275.12	100	8883.8	815.9	72.8	-812.6	815.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
15	9600.00	90.89	275.12	100	8882.2	915.9	81.7	-912.2	915.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
16	9700.00	90.89	275.12	100	8880.7	1015.9	90.6	-1011.8	1015.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
17	9800.00	90.89	275.12	100	8879.1	1115.9	99.6	-1111.4	1115.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
18	9900.00	90.89	275.12	100	8877.6	1215.8	108.5	-1211.0	1215.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
19	10000.00	90.89	275.12	100	8876.0	1315.8	117.4	-1310.6	1315.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
20	10100.00	90.89	275.12	100	8874.4	1415.8	126.3	-1410.2	1415.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
21	10200.00	90.89	275.12	100	8872.9	1515.8	135.3	-1509.8	1515.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
22	10300.00	90.89	275.12	100	8871.3	1615.8	144.2	-1609.3	1615.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
23	10400.00	90.89	275.12	100	8869.8	1715.8	153.1	-1708.9	1715.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
24	10500.00	90.89	275.12	100	8868.2	1815.8	162.0	-1808.5	1815.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
25	10600.00	90.89	275.12	100	8866.7	1915.8	170.9	-1908.1	1915.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
26	10700.00	90.89	275.12	100	8865.1	2015.7	179.9	-2007.7	2015.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
27	10800.00	90.89	275.12	100	8863.5	2115.7	188.8	-2107.3	2115.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
28	10900.00	90.89	275.12	100	8862.0	2215.7	197.7	-2206.9	2215.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
29	11000.00	90.89	275.12	100	8860.4	2315.7	206.6	-2306.5	2315.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
30	11100.00	90.89	275.12	100	8858.9	2415.7	215.5	-2406.1	2415.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
31	11200.00	90.89	275.12	100	8857.3	2515.7	224.5	-2505.6	2515.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
32	11300.00	90.89	275.12	100	8855.8	2615.7	233.4	-2605.2	2615.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
33	11400.00	90.89	275.12	100	8854.2	2715.7	242.3	-2704.8	2715.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
34	11500.00	90.89	275.12	100	8852.6	2815.6	251.2	-2804.4	2815.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
35	11600.00	90.89	275.12	100	8851.1	2915.6	260.2	-2904.0	2915.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
36	11700.00	90.89	275.12	100	8849.5	3015.6	269.1	-3003.6	3015.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
37	11800.00	90.89	275.12	100	8848.0	3115.6	278.0	-3103.2	3115.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
38	11900.00	90.89	275.12	100	8846.4	3215.6	286.9	-3202.8	3215.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
39	12000.00	90.89	275.12	100	8844.9	3315.6	295.8	-3302.4	3315.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
40	12100.00	90.89	275.12	100	8843.3	3415.6	304.8	-3402.0	3415.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
41	12200.00	90.89	275.12	100	8841.7	3515.6	313.7	-3501.5	3515.6	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
42	12300.00	90.89	275.12	100	8840.2	3615.5	322.6	-3601.1	3615.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
43	12400.00	90.89	275.12	100	8838.6	3715.5	331.5	-3700.7	3715.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
44	12500.00	90.89	275.12	100	8837.1	3815.5	340.5	-3800.3	3815.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
45	12600.00	90.89	275.12	100	8835.5	3915.5	349.4	-3899.9	3915.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
46	12700.00	90.89	275.12	100	8834.0	4015.5	358.3	-3999.5	4015.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
47	12800.00	90.89	275.12	100	8832.4	4115.5	367.2	-4099.1	4115.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
48	12900.00	90.89	275.12	100	8830.8	4215.5	376.1	-4198.7	4215.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
49	13000.00	90.89	275.12	100	8829.3	4315.5	385.1	-4298.3	4315.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
50	13100.00	90.89	275.12	100	8827.7	4415.5	394.0	-4397.8	4415.5	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
51	13200.00	90.89	275.12	100	8826.2	4515.4	402.9	-4497.4	4515.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
52	13300.00	90.89	275.12	100	8824.6	4615.4	411.8	-4597.0	4615.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
53	13400.00	90.89	275.12	100	8823.1	4715.4	420.7	-4696.6	4715.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
54	13500.00	90.89	275.12	100	8821.5	4815.4	429.7	-4796.2	4815.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
55	13600.00	90.89	275.12	100	8819.9	4915.4	438.6	-4895.8	4915.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
56	13700.00	90.89	275.12	100	8818.4	5015.4	447.5	-4995.4	5015.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10

57	13800.00	90.89	275.12	100	8816.8	5115.4	456.4	-5095.0	5115.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
58	13900.00	90.89	275.12	100	8815.3	5215.4	465.4	-5194.6	5215.4	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
59	14000.00	90.89	275.12	100	8813.7	5315.3	474.3	-5294.1	5315.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
60	14100.00	90.89	275.12	100	8812.1	5415.3	483.2	-5393.7	5415.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
61	14200.00	90.89	275.12	100	8810.6	5515.3	492.1	-5493.3	5515.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
62	14300.00	90.89	275.12	100	8809.0	5615.3	501.0	-5592.9	5615.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
63	14400.00	90.89	275.12	100	8807.5	5715.3	510.0	-5692.5	5715.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
64	14500.00	90.89	275.12	100	8805.9	5815.3	518.9	-5792.1	5815.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
65	14600.00	90.89	275.12	100	8804.4	5915.3	527.8	-5891.7	5915.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
66	14700.00	90.89	275.12	100	8802.8	6015.3	536.7	-5991.3	6015.3	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
67	14800.00	90.89	275.12	100	8801.2	6115.2	545.6	-6090.9	6115.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
68	14900.00	90.89	275.12	100	8799.7	6215.2	554.6	-6190.4	6215.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
69	15000.00	90.89	275.12	100	8798.1	6315.2	563.5	-6290.0	6315.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
70	15100.00	90.89	275.12	100	8796.6	6415.2	572.4	-6389.6	6415.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
71	15200.00	90.89	275.12	100	8795.0	6515.2	581.3	-6489.2	6515.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
72	15300.00	90.89	275.12	100	8793.5	6615.2	590.3	-6588.8	6615.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
73	15400.00	90.89	275.12	100	8791.9	6715.2	599.2	-6688.4	6715.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
74	15500.00	90.89	275.12	100	8790.3	6815.2	608.1	-6788.0	6815.2	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
75	15600.00	90.89	275.12	100	8788.8	6915.1	617.0	-6887.6	6915.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
76	15700.00	90.89	275.12	100	8787.2	7015.1	625.9	-6987.2	7015.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
77	15800.00	90.89	275.12	100	8785.7	7115.1	634.9	-7086.7	7115.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
78	15900.00	90.89	275.12	100	8784.1	7215.1	643.8	-7186.3	7215.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
79	16000.00	90.89	275.12	100	8782.6	7315.1	652.7	-7285.9	7315.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
80	16100.00	90.89	275.12	100	8781.0	7415.1	661.6	-7385.5	7415.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
81	16200.00	90.89	275.12	100	8779.4	7515.1	670.6	-7485.1	7515.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
82	16300.00	90.89	275.12	100	8777.9	7615.1	679.5	-7584.7	7615.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
83	16400.00	90.89	275.12	100	8776.3	7715.1	688.4	-7684.3	7715.1	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
84	16500.00	90.89	275.12	100	8774.8	7815.0	697.3	-7783.9	7815.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
85	16600.00	90.89	275.12	100	8773.2	7915.0	706.2	-7883.5	7915.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
86	16700.00	90.89	275.12	100	8771.7	8015.0	715.2	-7983.0	8015.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
87	16800.00	90.89	275.12	100	8770.1	8115.0	724.1	-8082.6	8115.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
88	16900.00	90.89	275.12	100	8768.5	8215.0	733.0	-8182.2	8215.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
89	17000.00	90.89	275.12	100	8767.0	8315.0	741.9	-8281.8	8315.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
90	17100.00	90.89	275.12	100	8765.4	8415.0	750.8	-8381.4	8415.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
91	17200.00	90.89	275.12	100	8763.9	8515.0	759.8	-8481.0	8515.0	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
92	17300.00	90.89	275.12	100	8762.3	8614.9	768.7	-8580.6	8614.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
93	17400.00	90.89	275.12	100	8760.8	8714.9	777.6	-8680.2	8714.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
94	17500.00	90.89	275.12	100	8759.2	8814.9	786.5	-8779.8	8814.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
95	17600.00	90.89	275.12	100	8757.6	8914.9	795.5	-8879.3	8914.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
96	17700.00	90.89	275.12	100	8756.1	9014.9	804.4	-8978.9	9014.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
97	17800.00	90.89	275.12	100	8754.5	9114.9	813.3	-9078.5	9114.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
98	17900.00	90.89	275.12	100	8753.0	9214.9	822.2	-9178.1	9214.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
99	18000.00	90.89	275.12	100	8751.4	9314.9	831.1	-9277.7	9314.9	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
100	18100.00	90.89	275.12	100	8749.9	9414.8	840.1	-9377.3	9414.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
101	18200.00	90.89	275.12	100	8748.3	9514.8	849.0	-9476.9	9514.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
102	18300.00	90.89	275.12	100	8746.7	9614.8	857.9	-9576.5	9614.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
103	18400.00	90.89	275.12	100	8745.2	9714.8	866.8	-9676.1	9714.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
104	18500.00	90.89	275.12	100	8743.6	9814.8	875.8	-9775.6	9814.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
105	18600.00	90.89	275.12	100	8742.1	9914.8	884.7	-9875.2	9914.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
106	18700.00	90.89	275.12	100	8740.5	10014.8	893.6	-9974.8	10014.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
107	18800.00	90.89	275.12	100	8739.0	10114.8	902.5	-10074.4	10114.8	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
108	18900.00	90.89	275.12	100	8737.4	10214.7	911.4	-10174.0	10214.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10
109	19000.00	90.89	275.12	100	8735.8	10314.7	920.4	-10273.6	10314.7	275.1	0.0	0.0	8896.5	-7.5	1.58637	4.80	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B2PM Fed Com 1H
KOP 7170.04
SL: 1200 FSL & 205 FEL; Sec 1P/20S/28E
PBHL: 660 FSL & 100 FWL; Sec 2M/20S/28E

Target KBTVD: 7,743 Feet 7743.00
Target Angle: 91.49 Degrees 91.49
Section Plane: 267.09 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	7170.04	0.00	267.09	N/A	7170.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7170.0	573.0	1E-12	4.66	#VALUE!
1	7261.54	9.15	267.09	91.494	7261.1	7.3	-0.4	-7.3	7.3	267.1	10.0	10.0	7261.3	481.7	0.15969	4.66	0.159688
2	7353.03	18.30	267.09	91.494	7349.9	29.0	-1.5	-28.9	29.0	267.1	10.0	10.0	7350.7	392.3	0.31938	4.66	0.159688
3	7444.53	27.45	267.09	91.494	7434.1	64.5	-3.3	-64.4	64.5	267.1	10.0	10.0	7435.8	307.2	0.47906	4.66	0.159688
4	7536.02	36.60	267.09	91.494	7511.6	113.0	-5.7	-112.8	113.0	267.1	10.0	10.0	7514.6	228.4	0.63875	4.66	0.159688
5	7627.51	45.75	267.09	91.494	7580.4	173.1	-8.8	-172.9	173.1	267.1	10.0	10.0	7585.0	158.0	0.79844	4.66	0.159688
6	7719.01	54.90	267.09	91.494	7638.8	243.5	-12.4	-243.2	243.5	267.1	10.0	10.0	7645.1	97.9	0.95813	4.66	0.159688
7	7810.50	64.05	267.09	91.494	7685.2	322.2	-16.3	-321.8	322.2	267.1	10.0	10.0	7693.6	49.4	1.11782	4.66	0.159688
8	7902.00	73.20	267.09	91.494	7718.5	407.3	-20.7	-406.8	407.3	267.1	10.0	10.0	7729.2	13.8	1.2775	4.66	0.159688
9	7993.49	82.35	267.09	91.494	7737.9	496.6	-25.2	-496.0	496.6	267.1	10.0	10.0	7750.9	-7.9	1.43719	4.66	0.159688
10	8084.99	91.49	267.09	91.494	7742.8	587.9	-29.8	-587.1	587.9	267.1	10.0	10.0	7758.1	-15.1	1.59688	4.66	0.159688
11	8100.00	91.49	267.09	15.013	7742.4	602.9	-30.6	-602.1	602.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
12	8200.00	91.49	267.09	100	7739.8	702.9	-35.7	-702.0	702.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
13	8300.00	91.49	267.09	100	7737.2	802.8	-40.7	-801.8	802.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
14	8400.00	91.49	267.09	100	7734.6	902.8	-45.8	-901.6	902.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
15	8500.00	91.49	267.09	100	7732.0	1002.8	-50.9	-1001.5	1002.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
16	8600.00	91.49	267.09	100	7729.4	1102.7	-56.0	-1101.3	1102.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
17	8700.00	91.49	267.09	100	7726.8	1202.7	-61.0	-1201.2	1202.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
18	8800.00	91.49	267.09	100	7724.2	1302.7	-66.1	-1301.0	1302.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
19	8900.00	91.49	267.09	100	7721.5	1402.6	-71.2	-1400.8	1402.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
20	9000.00	91.49	267.09	100	7718.9	1502.6	-76.2	-1500.7	1502.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
21	9100.00	91.49	267.09	100	7716.3	1602.6	-81.3	-1600.5	1602.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
22	9200.00	91.49	267.09	100	7713.7	1702.5	-86.4	-1700.3	1702.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
23	9300.00	91.49	267.09	100	7711.1	1802.5	-91.5	-1800.2	1802.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
24	9400.00	91.49	267.09	100	7708.5	1902.5	-96.5	-1900.0	1902.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
25	9500.00	91.49	267.09	100	7705.9	2002.4	-101.6	-1999.9	2002.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
26	9600.00	91.49	267.09	100	7703.3	2102.4	-106.7	-2099.7	2102.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
27	9700.00	91.49	267.09	100	7700.7	2202.4	-111.7	-2199.5	2202.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
28	9800.00	91.49	267.09	100	7698.1	2302.3	-116.8	-2299.4	2302.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
29	9900.00	91.49	267.09	100	7695.5	2402.3	-121.9	-2399.2	2402.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
30	10000.00	91.49	267.09	100	7692.9	2502.3	-127.0	-2499.0	2502.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
31	10100.00	91.49	267.09	100	7690.3	2602.2	-132.0	-2598.9	2602.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
32	10200.00	91.49	267.09	100	7687.6	2702.2	-137.1	-2698.7	2702.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
33	10300.00	91.49	267.09	100	7685.0	2802.2	-142.2	-2798.6	2802.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
34	10400.00	91.49	267.09	100	7682.4	2902.1	-147.3	-2898.4	2902.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
35	10500.00	91.49	267.09	100	7679.8	3002.1	-152.3	-2998.2	3002.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
36	10600.00	91.49	267.09	100	7677.2	3102.1	-157.4	-3098.1	3102.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
37	10700.00	91.49	267.09	100	7674.6	3202.0	-162.5	-3197.9	3202.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
38	10800.00	91.49	267.09	100	7672.0	3302.0	-167.5	-3297.7	3302.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
39	10900.00	91.49	267.09	100	7669.4	3402.0	-172.6	-3397.6	3402.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
40	11000.00	91.49	267.09	100	7666.8	3501.9	-177.7	-3497.4	3501.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
41	11100.00	91.49	267.09	100	7664.2	3601.9	-182.8	-3597.2	3601.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
42	11200.00	91.49	267.09	100	7661.6	3701.9	-187.8	-3697.1	3701.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
43	11300.00	91.49	267.09	100	7659.0	3801.8	-192.9	-3796.9	3801.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
44	11400.00	91.49	267.09	100	7656.3	3901.8	-198.0	-3896.8	3901.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
45	11500.00	91.49	267.09	100	7653.7	4001.8	-203.0	-3996.6	4001.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
46	11600.00	91.49	267.09	100	7651.1	4101.7	-208.1	-4096.4	4101.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
47	11700.00	91.49	267.09	100	7648.5	4201.7	-213.2	-4196.3	4201.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
48	11800.00	91.49	267.09	100	7645.9	4301.7	-218.3	-4296.1	4301.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
49	11900.00	91.49	267.09	100	7643.3	4401.6	-223.3	-4395.9	4401.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
50	12000.00	91.49	267.09	100	7640.7	4501.6	-228.4	-4495.8	4501.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
51	12100.00	91.49	267.09	100	7638.1	4601.5	-233.5	-4595.6	4601.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
52	12200.00	91.49	267.09	100	7635.5	4701.5	-238.6	-4695.5	4701.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
53	12300.00	91.49	267.09	100	7632.9	4801.5	-243.6	-4795.3	4801.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
54	12400.00	91.49	267.09	100	7630.3	4901.4	-248.7	-4895.1	4901.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
55	12500.00	91.49	267.09	100	7627.7	5001.4	-253.8	-4995.0	5001.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
56	12600.00	91.49	267.09	100	7625.0	5101.4	-258.8	-5094.8	5101.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10

57	12700.00	91.49	267.09	100	7622.4	5201.3	-263.9	-5194.6	5201.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
58	12800.00	91.49	267.09	100	7619.8	5301.3	-269.0	-5294.5	5301.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
59	12900.00	91.49	267.09	100	7617.2	5401.3	-274.1	-5394.3	5401.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
60	13000.00	91.49	267.09	100	7614.6	5501.2	-279.1	-5494.2	5501.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
61	13100.00	91.49	267.09	100	7612.0	5601.2	-284.2	-5594.0	5601.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
62	13200.00	91.49	267.09	100	7609.4	5701.2	-289.3	-5693.8	5701.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
63	13300.00	91.49	267.09	100	7606.8	5801.1	-294.3	-5793.7	5801.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
64	13400.00	91.49	267.09	100	7604.2	5901.1	-299.4	-5893.5	5901.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
65	13500.00	91.49	267.09	100	7601.6	6001.1	-304.5	-5993.3	6001.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
66	13600.00	91.49	267.09	100	7599.0	6101.0	-309.6	-6093.2	6101.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
67	13700.00	91.49	267.09	100	7596.4	6201.0	-314.6	-6193.0	6201.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
68	13800.00	91.49	267.09	100	7593.8	6301.0	-319.7	-6292.9	6301.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
69	13900.00	91.49	267.09	100	7591.1	6400.9	-324.8	-6392.7	6400.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
70	14000.00	91.49	267.09	100	7588.5	6500.9	-329.9	-6492.5	6500.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
71	14100.00	91.49	267.09	100	7585.9	6600.9	-334.9	-6592.4	6600.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
72	14200.00	91.49	267.09	100	7583.3	6700.8	-340.0	-6692.2	6700.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
73	14300.00	91.49	267.09	100	7580.7	6800.8	-345.1	-6792.0	6800.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
74	14400.00	91.49	267.09	100	7578.1	6900.8	-350.1	-6891.9	6900.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
75	14500.00	91.49	267.09	100	7575.5	7000.7	-355.2	-6991.7	7000.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
76	14600.00	91.49	267.09	100	7572.9	7100.7	-360.3	-7091.6	7100.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
77	14700.00	91.49	267.09	100	7570.3	7200.7	-365.4	-7191.4	7200.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
78	14800.00	91.49	267.09	100	7567.7	7300.6	-370.4	-7291.2	7300.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
79	14900.00	91.49	267.09	100	7565.1	7400.6	-375.5	-7391.1	7400.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
80	15000.00	91.49	267.09	100	7562.5	7500.6	-380.6	-7490.9	7500.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
81	15100.00	91.49	267.09	100	7559.8	7600.5	-385.6	-7590.7	7600.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
82	15200.00	91.49	267.09	100	7557.2	7700.5	-390.7	-7690.6	7700.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
83	15300.00	91.49	267.09	100	7554.6	7800.5	-395.8	-7790.4	7800.5	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
84	15400.00	91.49	267.09	100	7552.0	7900.4	-400.9	-7890.2	7900.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
85	15500.00	91.49	267.09	100	7549.4	8000.4	-405.9	-7990.1	8000.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
86	15600.00	91.49	267.09	100	7546.8	8100.4	-411.0	-8089.9	8100.4	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
87	15700.00	91.49	267.09	100	7544.2	8200.3	-416.1	-8189.8	8200.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
88	15800.00	91.49	267.09	100	7541.6	8300.3	-421.2	-8289.6	8300.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
89	15900.00	91.49	267.09	100	7539.0	8400.3	-426.2	-8389.4	8400.3	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
90	16000.00	91.49	267.09	100	7536.4	8500.2	-431.3	-8489.3	8500.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
91	16100.00	91.49	267.09	100	7533.8	8600.2	-436.4	-8589.1	8600.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
92	16200.00	91.49	267.09	100	7531.2	8700.2	-441.4	-8688.9	8700.2	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
93	16300.00	91.49	267.09	100	7528.6	8800.1	-446.5	-8788.8	8800.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
94	16400.00	91.49	267.09	100	7525.9	8900.1	-451.6	-8888.6	8900.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
95	16500.00	91.49	267.09	100	7523.3	9000.1	-456.7	-8988.5	9000.1	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
96	16600.00	91.49	267.09	100	7520.7	9100.0	-461.7	-9088.3	9100.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
97	16700.00	91.49	267.09	100	7518.1	9200.0	-466.8	-9188.1	9200.0	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
98	16800.00	91.49	267.09	100	7515.5	9299.9	-471.9	-9288.0	9299.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
99	16900.00	91.49	267.09	100	7512.9	9399.9	-476.9	-9387.8	9399.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
100	17000.00	91.49	267.09	100	7510.3	9499.9	-482.0	-9487.6	9499.9	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
101	17100.00	91.49	267.09	100	7507.7	9599.8	-487.1	-9587.5	9599.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
102	17200.00	91.49	267.09	100	7505.1	9699.8	-492.2	-9687.3	9699.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
103	17300.00	91.49	267.09	100	7502.5	9799.8	-497.2	-9787.2	9799.8	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
104	17400.00	91.49	267.09	100	7499.9	9899.7	-502.3	-9887.0	9899.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
105	17500.00	91.49	267.09	100	7497.3	9999.7	-507.4	-9986.8	9999.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
106	17600.00	91.49	267.09	100	7494.6	10099.7	-512.5	-10086.7	10099.7	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
107	17700.00	91.49	267.09	100	7492.0	10199.6	-517.5	-10186.5	10199.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
108	17800.00	91.49	267.09	100	7489.4	10299.6	-522.6	-10286.3	10299.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10
109	17844.01	91.49	267.09	44.014	7488.3	10343.6	-524.8	-10330.3	10343.6	267.1	0.0	0.0	7758.1	-15.1	1.59688	4.66	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B3PM Fed Com 1H
KOP 8446.54
SL: 1170 FSL & 205 FEL; Sec 1P/20S/28E
PBHL: 400 FSL & 100 FWL; Sec 2M/20S/28E

Target KBTVD: 8,924 Feet 8924.00
Target Angle: 90.98 Degrees 90.98
Section Plane: 265.49 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	8446.54	0.00	265.49	N/A	8446.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8446.5	477.5	1E-12	4.63	#VALUE!
1	8522.35	9.10	265.49	75.816	8522.0	6.0	-0.5	-6.0	6.0	265.5	12.0	12.0	8522.1	401.9	0.158788	4.63	0.1587883
2	8598.17	18.20	265.49	75.816	8595.6	23.9	-1.9	-23.8	23.9	265.5	12.0	12.0	8596.0	328.0	0.317577	4.63	0.1587883
3	8673.98	27.29	265.49	75.816	8665.5	53.2	-4.2	-53.0	53.2	265.5	12.0	12.0	8666.4	257.6	0.476365	4.63	0.1587883
4	8749.80	36.39	265.49	75.816	8729.8	93.1	-7.3	-92.8	93.1	265.5	12.0	12.0	8731.4	192.6	0.635153	4.63	0.1587883
5	8825.61	45.49	265.49	75.816	8787.0	142.7	-11.2	-142.3	142.7	265.5	12.0	12.0	8789.5	134.5	0.793941	4.63	0.1587883
6	8901.43	54.59	265.49	75.816	8835.7	200.8	-15.8	-200.2	200.8	265.5	12.0	12.0	8839.1	84.9	0.95273	4.63	0.1587883
7	8977.25	63.69	265.49	75.816	8874.5	265.8	-20.9	-265.0	265.8	265.5	12.0	12.0	8879.1	44.9	1.111518	4.63	0.1587883
8	9053.06	72.78	265.49	75.816	8902.6	336.1	-26.4	-335.1	336.1	265.5	12.0	12.0	8908.3	15.7	1.270306	4.63	0.1587883
9	9128.88	81.88	265.49	75.816	8919.2	410.0	-32.2	-408.8	410.0	265.5	12.0	12.0	8926.2	-2.2	1.429095	4.63	0.1587883
10	9204.69	90.98	265.49	75.816	8923.9	485.6	-38.2	-484.1	485.6	265.5	12.0	12.0	8932.2	-8.2	1.587883	4.63	0.1587883
11	9300.00	90.98	265.49	95.307	8922.3	580.9	-45.7	-579.1	580.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
12	9400.00	90.98	265.49	100	8920.6	680.9	-53.5	-678.8	680.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
13	9500.00	90.98	265.49	100	8918.9	780.9	-61.4	-778.5	780.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
14	9600.00	90.98	265.49	100	8917.2	880.9	-69.3	-878.1	880.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
15	9700.00	90.98	265.49	100	8915.5	980.9	-77.1	-977.8	980.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
16	9800.00	90.98	265.49	100	8913.8	1080.8	-85.0	-1077.5	1080.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
17	9900.00	90.98	265.49	100	8912.1	1180.8	-92.9	-1177.2	1180.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
18	10000.00	90.98	265.49	100	8910.3	1280.8	-100.7	-1276.8	1280.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
19	10100.00	90.98	265.49	100	8908.6	1380.8	-108.6	-1376.5	1380.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
20	10200.00	90.98	265.49	100	8906.9	1480.8	-116.5	-1476.2	1480.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
21	10300.00	90.98	265.49	100	8905.2	1580.8	-124.3	-1575.9	1580.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
22	10400.00	90.98	265.49	100	8903.5	1680.8	-132.2	-1675.5	1680.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
23	10500.00	90.98	265.49	100	8901.8	1780.7	-140.0	-1775.2	1780.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
24	10600.00	90.98	265.49	100	8900.1	1880.7	-147.9	-1874.9	1880.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
25	10700.00	90.98	265.49	100	8898.4	1980.7	-155.8	-1974.6	1980.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
26	10800.00	90.98	265.49	100	8896.7	2080.7	-163.6	-2074.3	2080.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
27	10900.00	90.98	265.49	100	8895.0	2180.7	-171.5	-2173.9	2180.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
28	11000.00	90.98	265.49	100	8893.3	2280.7	-179.4	-2273.6	2280.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
29	11100.00	90.98	265.49	100	8891.5	2380.7	-187.2	-2373.3	2380.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
30	11200.00	90.98	265.49	100	8889.8	2480.6	-195.1	-2473.0	2480.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
31	11300.00	90.98	265.49	100	8888.1	2580.6	-203.0	-2572.6	2580.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
32	11400.00	90.98	265.49	100	8886.4	2680.6	-210.8	-2672.3	2680.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
33	11500.00	90.98	265.49	100	8884.7	2780.6	-218.7	-2772.0	2780.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
34	11600.00	90.98	265.49	100	8883.0	2880.6	-226.5	-2871.7	2880.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
35	11700.00	90.98	265.49	100	8881.3	2980.6	-234.4	-2971.3	2980.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
36	11800.00	90.98	265.49	100	8879.6	3080.6	-242.3	-3071.0	3080.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
37	11900.00	90.98	265.49	100	8877.9	3180.5	-250.1	-3170.7	3180.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
38	12000.00	90.98	265.49	100	8876.2	3280.5	-258.0	-3270.4	3280.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
39	12100.00	90.98	265.49	100	8874.5	3380.5	-265.9	-3370.0	3380.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
40	12200.00	90.98	265.49	100	8872.8	3480.5	-273.7	-3469.7	3480.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
41	12300.00	90.98	265.49	100	8871.0	3580.5	-281.6	-3569.4	3580.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
42	12400.00	90.98	265.49	100	8869.3	3680.5	-289.4	-3669.1	3680.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
43	12500.00	90.98	265.49	100	8867.6	3780.4	-297.3	-3768.7	3780.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
44	12600.00	90.98	265.49	100	8865.9	3880.4	-305.2	-3868.4	3880.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
45	12700.00	90.98	265.49	100	8864.2	3980.4	-313.0	-3968.1	3980.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
46	12800.00	90.98	265.49	100	8862.5	4080.4	-320.9	-4067.8	4080.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
47	12900.00	90.98	265.49	100	8860.8	4180.4	-328.8	-4167.4	4180.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
48	13000.00	90.98	265.49	100	8859.1	4280.4	-336.6	-4267.1	4280.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
49	13100.00	90.98	265.49	100	8857.4	4380.4	-344.5	-4366.8	4380.4	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
50	13200.00	90.98	265.49	100	8855.7	4480.3	-352.4	-4466.5	4480.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
51	13300.00	90.98	265.49	100	8854.0	4580.3	-360.2	-4566.1	4580.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
52	13400.00	90.98	265.49	100	8852.3	4680.3	-368.1	-4665.8	4680.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
53	13500.00	90.98	265.49	100	8850.5	4780.3	-375.9	-4765.5	4780.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
54	13600.00	90.98	265.49	100	8848.8	4880.3	-383.8	-4865.2	4880.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
55	13700.00	90.98	265.49	100	8847.1	4980.3	-391.7	-4964.8	4980.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
56	13800.00	90.98	265.49	100	8845.4	5080.3	-399.5	-5064.5	5080.3	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10

57	13900.00	90.98	265.49	100	8843.7	5180.2	-407.4	-5164.2	5180.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
58	14000.00	90.98	265.49	100	8842.0	5280.2	-415.3	-5263.9	5280.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
59	14100.00	90.98	265.49	100	8840.3	5380.2	-423.1	-5363.6	5380.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
60	14200.00	90.98	265.49	100	8838.6	5480.2	-431.0	-5463.2	5480.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
61	14300.00	90.98	265.49	100	8836.9	5580.2	-438.8	-5562.9	5580.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
62	14400.00	90.98	265.49	100	8835.2	5680.2	-446.7	-5662.6	5680.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
63	14500.00	90.98	265.49	100	8833.5	5780.2	-454.6	-5762.3	5780.2	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
64	14600.00	90.98	265.49	100	8831.7	5880.1	-462.4	-5861.9	5880.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
65	14700.00	90.98	265.49	100	8830.0	5980.1	-470.3	-5961.6	5980.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
66	14800.00	90.98	265.49	100	8828.3	6080.1	-478.2	-6061.3	6080.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
67	14900.00	90.98	265.49	100	8826.6	6180.1	-486.0	-6161.0	6180.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
68	15000.00	90.98	265.49	100	8824.9	6280.1	-493.9	-6260.6	6280.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
69	15100.00	90.98	265.49	100	8823.2	6380.1	-501.8	-6360.3	6380.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
70	15200.00	90.98	265.49	100	8821.5	6480.1	-509.6	-6460.0	6480.1	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
71	15300.00	90.98	265.49	100	8819.8	6580.0	-517.5	-6559.7	6580.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
72	15400.00	90.98	265.49	100	8818.1	6680.0	-525.3	-6659.3	6680.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
73	15500.00	90.98	265.49	100	8816.4	6780.0	-533.2	-6759.0	6780.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
74	15600.00	90.98	265.49	100	8814.7	6880.0	-541.1	-6858.7	6880.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
75	15700.00	90.98	265.49	100	8813.0	6980.0	-548.9	-6958.4	6980.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
76	15800.00	90.98	265.49	100	8811.2	7080.0	-556.8	-7058.0	7080.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
77	15900.00	90.98	265.49	100	8809.5	7180.0	-564.7	-7157.7	7180.0	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
78	16000.00	90.98	265.49	100	8807.8	7279.9	-572.5	-7257.4	7279.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
79	16100.00	90.98	265.49	100	8806.1	7379.9	-580.4	-7357.1	7379.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
80	16200.00	90.98	265.49	100	8804.4	7479.9	-588.3	-7456.7	7479.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
81	16300.00	90.98	265.49	100	8802.7	7579.9	-596.1	-7556.4	7579.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
82	16400.00	90.98	265.49	100	8801.0	7679.9	-604.0	-7656.1	7679.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
83	16500.00	90.98	265.49	100	8799.3	7779.9	-611.8	-7755.8	7779.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
84	16600.00	90.98	265.49	100	8797.6	7879.8	-619.7	-7855.4	7879.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
85	16700.00	90.98	265.49	100	8795.9	7979.8	-627.6	-7955.1	7979.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
86	16800.00	90.98	265.49	100	8794.2	8079.8	-635.4	-8054.8	8079.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
87	16900.00	90.98	265.49	100	8792.5	8179.8	-643.3	-8154.5	8179.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
88	17000.00	90.98	265.49	100	8790.7	8279.8	-651.2	-8254.1	8279.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
89	17100.00	90.98	265.49	100	8789.0	8379.8	-659.0	-8353.8	8379.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
90	17200.00	90.98	265.49	100	8787.3	8479.8	-666.9	-8453.5	8479.8	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
91	17300.00	90.98	265.49	100	8785.6	8579.7	-674.7	-8553.2	8579.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
92	17400.00	90.98	265.49	100	8783.9	8679.7	-682.6	-8652.8	8679.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
93	17500.00	90.98	265.49	100	8782.2	8779.7	-690.5	-8752.5	8779.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
94	17600.00	90.98	265.49	100	8780.5	8879.7	-698.3	-8852.2	8879.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
95	17700.00	90.98	265.49	100	8778.8	8979.7	-706.2	-8951.9	8979.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
96	17800.00	90.98	265.49	100	8777.1	9079.7	-714.1	-9051.6	9079.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
97	17900.00	90.98	265.49	100	8775.4	9179.7	-721.9	-9151.2	9179.7	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
98	18000.00	90.98	265.49	100	8773.7	9279.6	-729.8	-9250.9	9279.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
99	18100.00	90.98	265.49	100	8771.9	9379.6	-737.7	-9350.6	9379.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
100	18200.00	90.98	265.49	100	8770.2	9479.6	-745.5	-9450.3	9479.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
101	18300.00	90.98	265.49	100	8768.5	9579.6	-753.4	-9549.9	9579.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
102	18400.00	90.98	265.49	100	8766.8	9679.6	-761.2	-9649.6	9679.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
103	18500.00	90.98	265.49	100	8765.1	9779.6	-769.1	-9749.3	9779.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
104	18600.00	90.98	265.49	100	8763.4	9879.6	-777.0	-9849.0	9879.6	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
105	18700.00	90.98	265.49	100	8761.7	9979.5	-784.8	-9948.6	9979.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
106	18800.00	90.98	265.49	100	8760.0	10079.5	-792.7	-10048.3	10079.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
107	18900.00	90.98	265.49	100	8758.3	10179.5	-800.6	-10148.0	10179.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
108	19000.00	90.98	265.49	100	8756.6	10279.5	-808.4	-10247.7	10279.5	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10
109	19086.38	90.98	265.49	86.381	8755.1	10365.9	-815.2	-10333.8	10365.9	265.5	0.0	0.0	8932.2	-8.2	1.587883	4.63	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B2AD Fed Com 1H
KOP 7136.04
SL: 1380 FNL & 205 FEL; Sec 1H/20S/28E
PBHL: 660 FNL & 100 FWL; Sec 2D/20S/28E

Target KBTVD: 7,709 Feet 7709.00
Target Angle: 91.35 Degrees 91.35
Section Plane: 273.64 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	7136.04	0.00	273.64	N/A	7136.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7136.0	573.0	1E-12	4.78	#VALUE!
1	7227.39	9.14	273.64	91.351	7227.0	7.3	0.5	-7.3	7.3	273.6	10.0	10.0	7227.2	481.8	0.15943802	4.78	0.159438
2	7318.74	18.27	273.64	91.351	7315.7	28.9	1.8	-28.8	28.9	273.6	10.0	10.0	7316.3	392.7	0.31887603	4.78	0.159438
3	7410.10	27.41	273.64	91.351	7399.8	64.3	4.1	-64.2	64.3	273.6	10.0	10.0	7401.3	307.7	0.47831405	4.78	0.159438
4	7501.45	36.54	273.64	91.351	7477.2	112.6	7.1	-112.4	112.6	273.6	10.0	10.0	7479.8	229.2	0.63775206	4.78	0.159438
5	7592.80	45.68	273.64	91.351	7545.9	172.6	11.0	-172.3	172.6	273.6	10.0	10.0	7550.0	159.0	0.79719008	4.78	0.159438
6	7684.15	54.81	273.64	91.351	7604.3	242.8	15.4	-242.3	242.8	273.6	10.0	10.0	7610.0	99.0	0.9566281	4.78	0.159438
7	7775.50	63.95	273.64	91.351	7650.8	321.3	20.4	-320.7	321.3	273.6	10.0	10.0	7658.4	50.6	1.11606611	4.78	0.159438
8	7866.85	73.08	273.64	91.351	7684.2	406.2	25.8	-405.4	406.2	273.6	10.0	10.0	7693.8	15.2	1.27550413	4.78	0.159438
9	7958.20	82.22	273.64	91.351	7703.7	495.4	31.4	-494.4	495.4	273.6	10.0	10.0	7715.4	-6.4	1.43494214	4.78	0.159438
10	8049.55	91.35	273.64	91.351	7708.8	586.5	37.2	-585.3	586.5	273.6	10.0	10.0	7722.7	-13.7	1.59438016	4.78	0.159438
11	8100.00	91.35	273.64	50.445	7707.7	636.9	40.4	-635.6	636.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
12	8200.00	91.35	273.64	100	7705.3	736.9	46.7	-735.4	736.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
13	8300.00	91.35	273.64	100	7702.9	836.8	53.1	-835.2	836.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
14	8400.00	91.35	273.64	100	7700.6	936.8	59.4	-934.9	936.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
15	8500.00	91.35	273.64	100	7698.2	1036.8	65.8	-1034.7	1036.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
16	8600.00	91.35	273.64	100	7695.9	1136.8	72.1	-1134.5	1136.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
17	8700.00	91.35	273.64	100	7693.5	1236.7	78.5	-1234.2	1236.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
18	8800.00	91.35	273.64	100	7691.1	1336.7	84.8	-1334.0	1336.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
19	8900.00	91.35	273.64	100	7688.8	1436.7	91.1	-1433.8	1436.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
20	9000.00	91.35	273.64	100	7686.4	1536.7	97.5	-1533.6	1536.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
21	9100.00	91.35	273.64	100	7684.1	1636.6	103.8	-1633.3	1636.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
22	9200.00	91.35	273.64	100	7681.7	1736.6	110.2	-1733.1	1736.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
23	9300.00	91.35	273.64	100	7679.4	1836.6	116.5	-1832.9	1836.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
24	9400.00	91.35	273.64	100	7677.0	1936.5	122.8	-1932.6	1936.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
25	9500.00	91.35	273.64	100	7674.6	2036.5	129.2	-2032.4	2036.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
26	9600.00	91.35	273.64	100	7672.3	2136.5	135.5	-2132.2	2136.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
27	9700.00	91.35	273.64	100	7669.9	2236.5	141.9	-2232.0	2236.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
28	9800.00	91.35	273.64	100	7667.6	2336.4	148.2	-2331.7	2336.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
29	9900.00	91.35	273.64	100	7665.2	2436.4	154.6	-2431.5	2436.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
30	10000.00	91.35	273.64	100	7662.8	2536.4	160.9	-2531.3	2536.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
31	10100.00	91.35	273.64	100	7660.5	2636.3	167.2	-2631.0	2636.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
32	10200.00	91.35	273.64	100	7658.1	2736.3	173.6	-2730.8	2736.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
33	10300.00	91.35	273.64	100	7655.8	2836.3	179.9	-2830.6	2836.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
34	10400.00	91.35	273.64	100	7653.4	2936.3	186.3	-2930.3	2936.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
35	10500.00	91.35	273.64	100	7651.1	3036.2	192.6	-3030.1	3036.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
36	10600.00	91.35	273.64	100	7648.7	3136.2	198.9	-3129.9	3136.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
37	10700.00	91.35	273.64	100	7646.3	3236.2	205.3	-3229.7	3236.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
38	10800.00	91.35	273.64	100	7644.0	3336.1	211.6	-3329.4	3336.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
39	10900.00	91.35	273.64	100	7641.6	3436.1	218.0	-3429.2	3436.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
40	11000.00	91.35	273.64	100	7639.3	3536.1	224.3	-3529.0	3536.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
41	11100.00	91.35	273.64	100	7636.9	3636.1	230.7	-3628.7	3636.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
42	11200.00	91.35	273.64	100	7634.5	3736.0	237.0	-3728.5	3736.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
43	11300.00	91.35	273.64	100	7632.2	3836.0	243.3	-3828.3	3836.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
44	11400.00	91.35	273.64	100	7629.8	3936.0	249.7	-3928.1	3936.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
45	11500.00	91.35	273.64	100	7627.5	4036.0	256.0	-4027.8	4036.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
46	11600.00	91.35	273.64	100	7625.1	4135.9	262.4	-4127.6	4135.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
47	11700.00	91.35	273.64	100	7622.8	4235.9	268.7	-4227.4	4235.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
48	11800.00	91.35	273.64	100	7620.4	4335.9	275.1	-4327.1	4335.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
49	11900.00	91.35	273.64	100	7618.0	4435.8	281.4	-4426.9	4435.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
50	12000.00	91.35	273.64	100	7615.7	4535.8	287.7	-4526.7	4535.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
51	12100.00	91.35	273.64	100	7613.3	4635.8	294.1	-4626.5	4635.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
52	12200.00	91.35	273.64	100	7611.0	4735.8	300.4	-4726.2	4735.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
53	12300.00	91.35	273.64	100	7608.6	4835.7	306.8	-4826.0	4835.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
54	12400.00	91.35	273.64	100	7606.3	4935.7	313.1	-4925.8	4935.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
55	12500.00	91.35	273.64	100	7603.9	5035.7	319.4	-5025.5	5035.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
56	12600.00	91.35	273.64	100	7601.5	5135.6	325.8	-5125.3	5135.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10

57	12700.00	91.35	273.64	100	7599.2	5235.6	332.1	-5225.1	5235.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
58	12800.00	91.35	273.64	100	7596.8	5335.6	338.5	-5324.8	5335.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
59	12900.00	91.35	273.64	100	7594.5	5435.6	344.8	-5424.6	5435.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
60	13000.00	91.35	273.64	100	7592.1	5535.5	351.2	-5524.4	5535.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
61	13100.00	91.35	273.64	100	7589.7	5635.5	357.5	-5624.2	5635.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
62	13200.00	91.35	273.64	100	7587.4	5735.5	363.8	-5723.9	5735.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
63	13300.00	91.35	273.64	100	7585.0	5835.5	370.2	-5823.7	5835.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
64	13400.00	91.35	273.64	100	7582.7	5935.4	376.5	-5923.5	5935.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
65	13500.00	91.35	273.64	100	7580.3	6035.4	382.9	-6023.2	6035.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
66	13600.00	91.35	273.64	100	7578.0	6135.4	389.2	-6123.0	6135.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
67	13700.00	91.35	273.64	100	7575.6	6235.3	395.5	-6222.8	6235.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
68	13800.00	91.35	273.64	100	7573.2	6335.3	401.9	-6322.6	6335.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
69	13900.00	91.35	273.64	100	7570.9	6435.3	408.2	-6422.3	6435.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
70	14000.00	91.35	273.64	100	7568.5	6535.3	414.6	-6522.1	6535.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
71	14100.00	91.35	273.64	100	7566.2	6635.2	420.9	-6621.9	6635.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
72	14200.00	91.35	273.64	100	7563.8	6735.2	427.3	-6721.6	6735.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
73	14300.00	91.35	273.64	100	7561.4	6835.2	433.6	-6821.4	6835.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
74	14400.00	91.35	273.64	100	7559.1	6935.1	439.9	-6921.2	6935.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
75	14500.00	91.35	273.64	100	7556.7	7035.1	446.3	-7021.0	7035.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
76	14600.00	91.35	273.64	100	7554.4	7135.1	452.6	-7120.7	7135.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
77	14700.00	91.35	273.64	100	7552.0	7235.1	459.0	-7220.5	7235.1	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
78	14800.00	91.35	273.64	100	7549.7	7335.0	465.3	-7320.3	7335.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
79	14900.00	91.35	273.64	100	7547.3	7435.0	471.6	-7420.0	7435.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
80	15000.00	91.35	273.64	100	7544.9	7535.0	478.0	-7519.8	7535.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
81	15100.00	91.35	273.64	100	7542.6	7635.0	484.3	-7619.6	7635.0	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
82	15200.00	91.35	273.64	100	7540.2	7734.9	490.7	-7719.3	7734.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
83	15300.00	91.35	273.64	100	7537.9	7834.9	497.0	-7819.1	7834.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
84	15400.00	91.35	273.64	100	7535.5	7934.9	503.4	-7918.9	7934.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
85	15500.00	91.35	273.64	100	7533.1	8034.8	509.7	-8018.7	8034.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
86	15600.00	91.35	273.64	100	7530.8	8134.8	516.0	-8118.4	8134.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
87	15700.00	91.35	273.64	100	7528.4	8234.8	522.4	-8218.2	8234.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
88	15800.00	91.35	273.64	100	7526.1	8334.8	528.7	-8318.0	8334.8	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
89	15900.00	91.35	273.64	100	7523.7	8434.7	535.1	-8417.7	8434.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
90	16000.00	91.35	273.64	100	7521.4	8534.7	541.4	-8517.5	8534.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
91	16100.00	91.35	273.64	100	7519.0	8634.7	547.8	-8617.3	8634.7	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
92	16200.00	91.35	273.64	100	7516.6	8734.6	554.1	-8717.1	8734.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
93	16300.00	91.35	273.64	100	7514.3	8834.6	560.4	-8816.8	8834.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
94	16400.00	91.35	273.64	100	7511.9	8934.6	566.8	-8916.6	8934.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
95	16500.00	91.35	273.64	100	7509.6	9034.6	573.1	-9016.4	9034.6	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
96	16600.00	91.35	273.64	100	7507.2	9134.5	579.5	-9116.1	9134.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
97	16700.00	91.35	273.64	100	7504.8	9234.5	585.8	-9215.9	9234.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
98	16800.00	91.35	273.64	100	7502.5	9334.5	592.1	-9315.7	9334.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
99	16900.00	91.35	273.64	100	7500.1	9434.5	598.5	-9415.5	9434.5	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
100	17000.00	91.35	273.64	100	7497.8	9534.4	604.8	-9515.2	9534.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
101	17100.00	91.35	273.64	100	7495.4	9634.4	611.2	-9615.0	9634.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
102	17200.00	91.35	273.64	100	7493.1	9734.4	617.5	-9714.8	9734.4	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
103	17300.00	91.35	273.64	100	7490.7	9834.3	623.9	-9814.5	9834.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
104	17400.00	91.35	273.64	100	7488.3	9934.3	630.2	-9914.3	9934.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
105	17500.00	91.35	273.64	100	7486.0	10034.3	636.5	-10014.1	10034.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
106	17600.00	91.35	273.64	100	7483.6	10134.3	642.9	-10113.8	10134.3	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
107	17700.00	91.35	273.64	100	7481.3	10234.2	649.2	-10213.6	10234.2	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10
108	17786.68	91.35	273.64	86.678	7479.2	10320.9	654.7	-10300.1	10320.9	273.6	0.0	0.0	7722.7	-13.7	1.59438016	4.78	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 B2HE Fed Com 1H
KOP 7146.04
SL: 1500 FNL & 205 FEL; Sec 1H/20S/28E
PBHL: 1980 FNL & 100 FWL; Sec 2E/20S/28E

Target KBTVD: 7,719 Feet 7719.00
Target Angle: 91.44 Degrees 91.44
Section Plane: 266.97 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	7146.04	0.00	266.97	N/A	7146.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7146.0	573.0	1E-12	4.66	#VALUE!
1	7237.48	9.14	266.97	91.439	7237.1	7.3	-0.4	-7.3	7.3	267.0	10.0	10.0	7237.3	481.7	0.15959	4.66	0.1595912
2	7328.92	18.29	266.97	91.439	7325.8	28.9	-1.5	-28.9	28.9	267.0	10.0	10.0	7326.6	392.4	0.31918	4.66	0.1595912
3	7420.36	27.43	266.97	91.439	7410.0	64.4	-3.4	-64.3	64.4	267.0	10.0	10.0	7411.6	307.4	0.47877	4.66	0.1595912
4	7511.80	36.58	266.97	91.439	7487.5	112.8	-6.0	-112.7	112.8	267.0	10.0	10.0	7490.3	228.7	0.63836	4.66	0.1595912
5	7603.24	45.72	266.97	91.439	7556.2	172.9	-9.1	-172.7	172.9	267.0	10.0	10.0	7560.6	158.4	0.79796	4.66	0.1595912
6	7694.68	54.86	266.97	91.439	7614.6	243.2	-12.8	-242.9	243.2	267.0	10.0	10.0	7620.7	98.3	0.95755	4.66	0.1595912
7	7786.12	64.01	266.97	91.439	7661.0	321.9	-17.0	-321.4	321.9	267.0	10.0	10.0	7669.1	49.9	1.11714	4.66	0.1595912
8	7877.55	73.15	266.97	91.439	7694.4	406.9	-21.5	-406.3	406.9	267.0	10.0	10.0	7704.6	14.4	1.27673	4.66	0.1595912
9	7968.99	82.30	266.97	91.439	7713.8	496.1	-26.2	-495.4	496.1	267.0	10.0	10.0	7726.3	-7.3	1.43632	4.66	0.1595912
10	8060.43	91.44	266.97	91.439	7718.8	587.3	-31.0	-586.5	587.3	267.0	10.0	10.0	7733.6	-14.6	1.59591	4.66	0.1595912
11	8100.00	91.44	266.97	39.568	7717.8	626.9	-33.1	-626.0	626.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
12	8200.00	91.44	266.97	100	7715.3	726.9	-38.4	-725.9	726.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
13	8300.00	91.44	266.97	100	7712.8	826.8	-43.6	-825.7	826.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
14	8400.00	91.44	266.97	100	7710.3	926.8	-48.9	-925.5	926.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
15	8500.00	91.44	266.97	100	7707.8	1026.8	-54.2	-1025.3	1026.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
16	8600.00	91.44	266.97	100	7705.3	1126.7	-59.5	-1125.2	1126.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
17	8700.00	91.44	266.97	100	7702.8	1226.7	-64.7	-1225.0	1226.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
18	8800.00	91.44	266.97	100	7700.2	1326.7	-70.0	-1324.8	1326.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
19	8900.00	91.44	266.97	100	7697.7	1426.6	-75.3	-1424.7	1426.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
20	9000.00	91.44	266.97	100	7695.2	1526.6	-80.6	-1524.5	1526.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
21	9100.00	91.44	266.97	100	7692.7	1626.6	-85.9	-1624.3	1626.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
22	9200.00	91.44	266.97	100	7690.2	1726.6	-91.1	-1724.1	1726.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
23	9300.00	91.44	266.97	100	7687.7	1826.5	-96.4	-1824.0	1826.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
24	9400.00	91.44	266.97	100	7685.2	1926.5	-101.7	-1923.8	1926.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
25	9500.00	91.44	266.97	100	7682.7	2026.5	-107.0	-2023.6	2026.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
26	9600.00	91.44	266.97	100	7680.2	2126.4	-112.2	-2123.5	2126.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
27	9700.00	91.44	266.97	100	7677.6	2226.4	-117.5	-2223.3	2226.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
28	9800.00	91.44	266.97	100	7675.1	2326.4	-122.8	-2323.1	2326.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
29	9900.00	91.44	266.97	100	7672.6	2426.3	-128.1	-2423.0	2426.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
30	10000.00	91.44	266.97	100	7670.1	2526.3	-133.3	-2522.8	2526.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
31	10100.00	91.44	266.97	100	7667.6	2626.3	-138.6	-2622.6	2626.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
32	10200.00	91.44	266.97	100	7665.1	2726.2	-143.9	-2722.4	2726.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
33	10300.00	91.44	266.97	100	7662.6	2826.2	-149.2	-2822.3	2826.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
34	10400.00	91.44	266.97	100	7660.1	2926.2	-154.4	-2922.1	2926.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
35	10500.00	91.44	266.97	100	7657.6	3026.1	-159.7	-3021.9	3026.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
36	10600.00	91.44	266.97	100	7655.0	3126.1	-165.0	-3121.8	3126.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
37	10700.00	91.44	266.97	100	7652.5	3226.1	-170.3	-3221.6	3226.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
38	10800.00	91.44	266.97	100	7650.0	3326.1	-175.6	-3321.4	3326.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
39	10900.00	91.44	266.97	100	7647.5	3426.0	-180.8	-3421.2	3426.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
40	11000.00	91.44	266.97	100	7645.0	3526.0	-186.1	-3521.1	3526.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
41	11100.00	91.44	266.97	100	7642.5	3626.0	-191.4	-3620.9	3626.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
42	11200.00	91.44	266.97	100	7640.0	3725.9	-196.7	-3720.7	3725.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
43	11300.00	91.44	266.97	100	7637.5	3825.9	-201.9	-3820.6	3825.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
44	11400.00	91.44	266.97	100	7635.0	3925.9	-207.2	-3920.4	3925.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
45	11500.00	91.44	266.97	100	7632.4	4025.8	-212.5	-4020.2	4025.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
46	11600.00	91.44	266.97	100	7629.9	4125.8	-217.8	-4120.0	4125.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
47	11700.00	91.44	266.97	100	7627.4	4225.8	-223.0	-4219.9	4225.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
48	11800.00	91.44	266.97	100	7624.9	4325.7	-228.3	-4319.7	4325.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
49	11900.00	91.44	266.97	100	7622.4	4425.7	-233.6	-4419.5	4425.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
50	12000.00	91.44	266.97	100	7619.9	4525.7	-238.9	-4519.4	4525.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
51	12100.00	91.44	266.97	100	7617.4	4625.6	-244.1	-4619.2	4625.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
52	12200.00	91.44	266.97	100	7614.9	4725.6	-249.4	-4719.0	4725.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
53	12300.00	91.44	266.97	100	7612.4	4825.6	-254.7	-4818.9	4825.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
54	12400.00	91.44	266.97	100	7609.8	4925.5	-260.0	-4918.7	4925.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
55	12500.00	91.44	266.97	100	7607.3	5025.5	-265.3	-5018.5	5025.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
56	12600.00	91.44	266.97	100	7604.8	5125.5	-270.5	-5118.3	5125.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10

57	12700.00	91.44	266.97	100	7602.3	5225.5	-275.8	-5218.2	5225.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
58	12800.00	91.44	266.97	100	7599.8	5325.4	-281.1	-5318.0	5325.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
59	12900.00	91.44	266.97	100	7597.3	5425.4	-286.4	-5417.8	5425.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
60	13000.00	91.44	266.97	100	7594.8	5525.4	-291.6	-5517.7	5525.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
61	13100.00	91.44	266.97	100	7592.3	5625.3	-296.9	-5617.5	5625.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
62	13200.00	91.44	266.97	100	7589.8	5725.3	-302.2	-5717.3	5725.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
63	13300.00	91.44	266.97	100	7587.2	5825.3	-307.5	-5817.1	5825.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
64	13400.00	91.44	266.97	100	7584.7	5925.2	-312.7	-5917.0	5925.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
65	13500.00	91.44	266.97	100	7582.2	6025.2	-318.0	-6016.8	6025.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
66	13600.00	91.44	266.97	100	7579.7	6125.2	-323.3	-6116.6	6125.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
67	13700.00	91.44	266.97	100	7577.2	6225.1	-328.6	-6216.5	6225.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
68	13800.00	91.44	266.97	100	7574.7	6325.1	-333.8	-6316.3	6325.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
69	13900.00	91.44	266.97	100	7572.2	6425.1	-339.1	-6416.1	6425.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
70	14000.00	91.44	266.97	100	7569.7	6525.0	-344.4	-6515.9	6525.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
71	14100.00	91.44	266.97	100	7567.1	6625.0	-349.7	-6615.8	6625.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
72	14200.00	91.44	266.97	100	7564.6	6725.0	-355.0	-6715.6	6725.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
73	14300.00	91.44	266.97	100	7562.1	6824.9	-360.2	-6815.4	6824.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
74	14400.00	91.44	266.97	100	7559.6	6924.9	-365.5	-6915.3	6924.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
75	14500.00	91.44	266.97	100	7557.1	7024.9	-370.8	-7015.1	7024.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
76	14600.00	91.44	266.97	100	7554.6	7124.9	-376.1	-7114.9	7124.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
77	14700.00	91.44	266.97	100	7552.1	7224.8	-381.3	-7214.7	7224.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
78	14800.00	91.44	266.97	100	7549.6	7324.8	-386.6	-7314.6	7324.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
79	14900.00	91.44	266.97	100	7547.1	7424.8	-391.9	-7414.4	7424.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
80	15000.00	91.44	266.97	100	7544.5	7524.7	-397.2	-7514.2	7524.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
81	15100.00	91.44	266.97	100	7542.0	7624.7	-402.4	-7614.1	7624.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
82	15200.00	91.44	266.97	100	7539.5	7724.7	-407.7	-7713.9	7724.7	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
83	15300.00	91.44	266.97	100	7537.0	7824.6	-413.0	-7813.7	7824.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
84	15400.00	91.44	266.97	100	7534.5	7924.6	-418.3	-7913.6	7924.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
85	15500.00	91.44	266.97	100	7532.0	8024.6	-423.5	-8013.4	8024.6	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
86	15600.00	91.44	266.97	100	7529.5	8124.5	-428.8	-8113.2	8124.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
87	15700.00	91.44	266.97	100	7527.0	8224.5	-434.1	-8213.0	8224.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
88	15800.00	91.44	266.97	100	7524.5	8324.5	-439.4	-8312.9	8324.5	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
89	15900.00	91.44	266.97	100	7521.9	8424.4	-444.6	-8412.7	8424.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
90	16000.00	91.44	266.97	100	7519.4	8524.4	-449.9	-8512.5	8524.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
91	16100.00	91.44	266.97	100	7516.9	8624.4	-455.2	-8612.4	8624.4	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
92	16200.00	91.44	266.97	100	7514.4	8724.3	-460.5	-8712.2	8724.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
93	16300.00	91.44	266.97	100	7511.9	8824.3	-465.8	-8812.0	8824.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
94	16400.00	91.44	266.97	100	7509.4	8924.3	-471.0	-8911.8	8924.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
95	16500.00	91.44	266.97	100	7506.9	9024.3	-476.3	-9011.7	9024.3	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
96	16600.00	91.44	266.97	100	7504.4	9124.2	-481.6	-9111.5	9124.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
97	16700.00	91.44	266.97	100	7501.9	9224.2	-486.9	-9211.3	9224.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
98	16800.00	91.44	266.97	100	7499.3	9324.2	-492.1	-9311.2	9324.2	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
99	16900.00	91.44	266.97	100	7496.8	9424.1	-497.4	-9411.0	9424.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
100	17000.00	91.44	266.97	100	7494.3	9524.1	-502.7	-9510.8	9524.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
101	17100.00	91.44	266.97	100	7491.8	9624.1	-508.0	-9610.6	9624.1	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
102	17200.00	91.44	266.97	100	7489.3	9724.0	-513.2	-9710.5	9724.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
103	17300.00	91.44	266.97	100	7486.8	9824.0	-518.5	-9810.3	9824.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
104	17400.00	91.44	266.97	100	7484.3	9924.0	-523.8	-9910.1	9924.0	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
105	17500.00	91.44	266.97	100	7481.8	10023.9	-529.1	-10010.0	10023.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
106	17600.00	91.44	266.97	100	7479.3	10123.9	-534.3	-10109.8	10123.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
107	17700.00	91.44	266.97	100	7476.7	10223.9	-539.6	-10209.6	10223.9	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10
108	17798.98	91.44	266.97	98.979	7474.3	10322.8	-544.8	-10308.4	10322.8	267.0	0.0	0.0	7733.6	-14.6	1.59591	4.66	1E-10

Desert Eagle 1/2 B3AD Fed Com #1H
Sec 2
Sec 1
KOP: 1282' FNL & 10' FEL (1)
FTP: 1282' FNL & 100' FEL (1)
BHL: 1282' FNL & 100' FWL (2)
PPP3: 1282' FNL & 0' FEL (2)
PPP2: 1282' FNL & 2660' FEL(1)
SHL: 1440' FNL & 205' FEL (1)
Hardlines
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
2250
1500
750
0
-750
-1500
-2250
-3000
-3750
-4500
-10500
-9750
-9000
-8250
-7500
-6750
-6000
-5250
-4500
-3750
-3000
-2250
-1500
-750
0

SHL: 1440' FNL & 205' FEL (1)
KOP: 1282' FNL & 10' FEL (1)
FTP: 1282' FNL & 100' FEL (1)
PPP2: 1282' FNL & 2660' FEL(1)
PPP3: 1282' FNL & 0' FEL (2)
BHL: 1282' FNL & 100' FWL (2)
True Vertical Depth (2500 usft/in)
Vertical Section at 270.52° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250
12500
13750

Desert Eagle 1/2 W0AD Fed Com 1H
FTP: 400' FNL & 100' FEL (1)
BHL: 400' FNL & 100' FWL (2)
PPP3: 400' FNL & 0' FEL (2)
PPP2: 400' FNL & 2660' FEL (1)
KOP: 400' FNL & 10' FEL (1)
SHL: 1410' FNL & 205 FEL (1)
Hardlines
Sec 2
Sec 1
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
2250
1500
750
0
-750
-1500
-2250
-3000
-3750
-4500
-10500
-9750
-9000
-8250
-7500
-6750
-6000
-5250
-4500
-3750
-3000
-2250
-1500
-750
0

SHL: 1410' FNL & 205 FEL (1)
KOP: 400' FNL & 10' FEL (1)
PPP3: 400' FNL & 0' FEL (2)
FTP: 400' FNL & 100' FEL (1)
BHL: 400' FNL & 100' FWL (2)
PPP2: 400' FNL & 2660' FEL (1)
True Vertical Depth (2500 usft/in)
Vertical Section at 275.23° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250
12500
13750

Desert Eagle 1/2 W0EH Fed Com #1H
Hardlines
SHL: 1470' FNL & 205' FEL (1)
PPP2: 2200' FNL & 2660' FEL (1)
BHL: 2200' FNL & 100' FEL (2)
PPP3: 2200' FNL & 0' FEL (2)
FTP: 2200' FNL & 100' FEL (1)
KOP: 2200' FNL & 10' FEL (1)
Sec 2
Sec 1
South(-)/North(+) (1500 usft/in)
West(-)/East(+) (1500 usft/in)
2250
1500
750
0
-750
-1500
-2250
-3000
-3750
-4500
-10500
-9750
-9000
-8250
-7500
-6750
-6000
-5250
-4500
-3750
-3000
-2250
-1500
-750
0

SHL: 1470' FNL & 205' FEL (1)
KOP: 2200' FNL & 10' FEL (1)
FTP: 2200' FNL & 100' FEL (1)
PPP2: 2200' FNL & 2660' FEL (1)
PPP3: 2200' FNL & 0' FEL (2)
BHL: 2200' FNL & 100' FEL (2)
True Vertical Depth (2500 usft/in)
Vertical Section at 265.60° (2500 usft/in)
0
1250
2500
3750
5000
6250
7500
8750
10000
-3750
-2500
-1250
0
1250
2500
3750
5000
6250
7500
8750
10000
11250
12500
13750

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Desert Eagle 1/2 W0PM Fed Com 1H
KOP 8679.54
SL: 1230 FSL & 205 FEL; Sec 1P/20S/28E
PBHL: 400 FSL & 100 FWL; Sec 2M/20S/28E

Target KBTVD: 9,157 Feet 9157.00
Target Angle: 90.88 Degrees 90.88
Section Plane: 270.36 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	8679.54	0.00	270.36	N/A	8679.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8679.5	477.5	1E-12	4.72	#VALUE!
1	8755.27	9.09	270.36	75.737	8755.0	6.0	0.0	-6.0	6.0	270.4	12.0	12.0	8755.0	402.0	0.15862	4.72	0.1586223
2	8831.01	18.18	270.36	75.737	8828.5	23.8	0.1	-23.8	23.8	270.4	12.0	12.0	8828.8	328.2	0.31724	4.72	0.1586223
3	8906.74	27.27	270.36	75.737	8898.3	53.0	0.3	-53.0	53.0	270.4	12.0	12.0	8899.1	257.9	0.47587	4.72	0.1586223
4	8982.48	36.35	270.36	75.737	8962.6	92.9	0.6	-92.9	92.9	270.4	12.0	12.0	8964.0	193.0	0.63449	4.72	0.1586223
5	9058.22	45.44	270.36	75.737	9019.7	142.5	0.9	-142.5	142.5	270.4	12.0	12.0	9021.9	135.1	0.79311	4.72	0.1586223
6	9133.95	54.53	270.36	75.737	9068.4	200.4	1.3	-200.4	200.4	270.4	12.0	12.0	9071.5	85.5	0.95173	4.72	0.1586223
7	9209.69	63.62	270.36	75.737	9107.3	265.3	1.7	-265.3	265.3	270.4	12.0	12.0	9111.4	45.6	1.11036	4.72	0.1586223
8	9285.43	72.71	270.36	75.737	9135.4	335.5	2.1	-335.5	335.5	270.4	12.0	12.0	9140.6	16.4	1.26898	4.72	0.1586223
9	9361.16	81.80	270.36	75.737	9152.1	409.3	2.6	-409.3	409.3	270.4	12.0	12.0	9158.4	-1.4	1.4276	4.72	0.1586223
10	9436.90	90.88	270.36	75.737	9156.9	484.8	3.0	-484.8	484.8	270.4	12.0	12.0	9164.4	-7.4	1.58622	4.72	0.1586223
11	9500.00	90.88	270.36	63.099	9156.0	547.9	3.4	-547.9	547.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
12	9600.00	90.88	270.36	100	9154.4	647.9	4.1	-647.9	647.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
13	9700.00	90.88	270.36	100	9152.9	747.9	4.7	-747.9	747.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
14	9800.00	90.88	270.36	100	9151.3	847.9	5.3	-847.9	847.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
15	9900.00	90.88	270.36	100	9149.8	947.9	5.9	-947.9	947.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
16	10000.00	90.88	270.36	100	9148.3	1047.9	6.6	-1047.8	1047.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
17	10100.00	90.88	270.36	100	9146.7	1147.9	7.2	-1147.8	1147.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
18	10200.00	90.88	270.36	100	9145.2	1247.8	7.8	-1247.8	1247.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
19	10300.00	90.88	270.36	100	9143.6	1347.8	8.5	-1347.8	1347.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
20	10400.00	90.88	270.36	100	9142.1	1447.8	9.1	-1447.8	1447.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
21	10500.00	90.88	270.36	100	9140.5	1547.8	9.7	-1547.8	1547.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
22	10600.00	90.88	270.36	100	9139.0	1647.8	10.3	-1647.8	1647.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
23	10700.00	90.88	270.36	100	9137.5	1747.8	11.0	-1747.7	1747.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
24	10800.00	90.88	270.36	100	9135.9	1847.8	11.6	-1847.7	1847.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
25	10900.00	90.88	270.36	100	9134.4	1947.8	12.2	-1947.7	1947.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
26	11000.00	90.88	270.36	100	9132.8	2047.7	12.8	-2047.7	2047.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
27	11100.00	90.88	270.36	100	9131.3	2147.7	13.5	-2147.7	2147.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
28	11200.00	90.88	270.36	100	9129.7	2247.7	14.1	-2247.7	2247.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
29	11300.00	90.88	270.36	100	9128.2	2347.7	14.7	-2347.7	2347.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
30	11400.00	90.88	270.36	100	9126.7	2447.7	15.3	-2447.6	2447.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
31	11500.00	90.88	270.36	100	9125.1	2547.7	16.0	-2547.6	2547.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
32	11600.00	90.88	270.36	100	9123.6	2647.7	16.6	-2647.6	2647.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
33	11700.00	90.88	270.36	100	9122.0	2747.7	17.2	-2747.6	2747.7	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
34	11800.00	90.88	270.36	100	9120.5	2847.6	17.9	-2847.6	2847.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
35	11900.00	90.88	270.36	100	9118.9	2947.6	18.5	-2947.6	2947.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
36	12000.00	90.88	270.36	100	9117.4	3047.6	19.1	-3047.6	3047.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
37	12100.00	90.88	270.36	100	9115.9	3147.6	19.7	-3147.6	3147.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
38	12200.00	90.88	270.36	100	9114.3	3247.6	20.4	-3247.5	3247.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
39	12300.00	90.88	270.36	100	9112.8	3347.6	21.0	-3347.5	3347.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
40	12400.00	90.88	270.36	100	9111.2	3447.6	21.6	-3447.5	3447.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
41	12500.00	90.88	270.36	100	9109.7	3547.6	22.2	-3547.5	3547.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
42	12600.00	90.88	270.36	100	9108.1	3647.6	22.9	-3647.5	3647.6	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
43	12700.00	90.88	270.36	100	9106.6	3747.5	23.5	-3747.5	3747.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
44	12800.00	90.88	270.36	100	9105.1	3847.5	24.1	-3847.5	3847.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
45	12900.00	90.88	270.36	100	9103.5	3947.5	24.7	-3947.4	3947.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
46	13000.00	90.88	270.36	100	9102.0	4047.5	25.4	-4047.4	4047.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
47	13100.00	90.88	270.36	100	9100.4	4147.5	26.0	-4147.4	4147.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
48	13200.00	90.88	270.36	100	9098.9	4247.5	26.6	-4247.4	4247.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
49	13300.00	90.88	270.36	100	9097.3	4347.5	27.3	-4347.4	4347.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
50	13400.00	90.88	270.36	100	9095.8	4447.5	27.9	-4447.4	4447.5	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
51	13500.00	90.88	270.36	100	9094.3	4547.4	28.5	-4547.4	4547.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
52	13600.00	90.88	270.36	100	9092.7	4647.4	29.1	-4647.3	4647.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
53	13700.00	90.88	270.36	100	9091.2	4747.4	29.8	-4747.3	4747.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
54	13800.00	90.88	270.36	100	9089.6	4847.4	30.4	-4847.3	4847.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
55	13900.00	90.88	270.36	100	9088.1	4947.4	31.0	-4947.3	4947.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
56	14000.00	90.88	270.36	100	9086.6	5047.4	31.6	-5047.3	5047.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10

57	14100.00	90.88	270.36	100	9085.0	5147.4	32.3	-5147.3	5147.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
58	14200.00	90.88	270.36	100	9083.5	5247.4	32.9	-5247.3	5247.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
59	14300.00	90.88	270.36	100	9081.9	5347.4	33.5	-5347.2	5347.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
60	14400.00	90.88	270.36	100	9080.4	5447.3	34.2	-5447.2	5447.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
61	14500.00	90.88	270.36	100	9078.8	5547.3	34.8	-5547.2	5547.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
62	14600.00	90.88	270.36	100	9077.3	5647.3	35.4	-5647.2	5647.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
63	14700.00	90.88	270.36	100	9075.8	5747.3	36.0	-5747.2	5747.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
64	14800.00	90.88	270.36	100	9074.2	5847.3	36.7	-5847.2	5847.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
65	14900.00	90.88	270.36	100	9072.7	5947.3	37.3	-5947.2	5947.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
66	15000.00	90.88	270.36	100	9071.1	6047.3	37.9	-6047.1	6047.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
67	15100.00	90.88	270.36	100	9069.6	6147.3	38.5	-6147.1	6147.3	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
68	15200.00	90.88	270.36	100	9068.0	6247.2	39.2	-6247.1	6247.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
69	15300.00	90.88	270.36	100	9066.5	6347.2	39.8	-6347.1	6347.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
70	15400.00	90.88	270.36	100	9065.0	6447.2	40.4	-6447.1	6447.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
71	15500.00	90.88	270.36	100	9063.4	6547.2	41.0	-6547.1	6547.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
72	15600.00	90.88	270.36	100	9061.9	6647.2	41.7	-6647.1	6647.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
73	15700.00	90.88	270.36	100	9060.3	6747.2	42.3	-6747.1	6747.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
74	15800.00	90.88	270.36	100	9058.8	6847.2	42.9	-6847.0	6847.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
75	15900.00	90.88	270.36	100	9057.2	6947.2	43.6	-6947.0	6947.2	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
76	16000.00	90.88	270.36	100	9055.7	7047.1	44.2	-7047.0	7047.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
77	16100.00	90.88	270.36	100	9054.2	7147.1	44.8	-7147.0	7147.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
78	16200.00	90.88	270.36	100	9052.6	7247.1	45.4	-7247.0	7247.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
79	16300.00	90.88	270.36	100	9051.1	7347.1	46.1	-7347.0	7347.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
80	16400.00	90.88	270.36	100	9049.5	7447.1	46.7	-7447.0	7447.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
81	16500.00	90.88	270.36	100	9048.0	7547.1	47.3	-7546.9	7547.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
82	16600.00	90.88	270.36	100	9046.4	7647.1	47.9	-7646.9	7647.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
83	16700.00	90.88	270.36	100	9044.9	7747.1	48.6	-7746.9	7747.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
84	16800.00	90.88	270.36	100	9043.4	7847.1	49.2	-7846.9	7847.1	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
85	16900.00	90.88	270.36	100	9041.8	7947.0	49.8	-7946.9	7947.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
86	17000.00	90.88	270.36	100	9040.3	8047.0	50.4	-8046.9	8047.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
87	17100.00	90.88	270.36	100	9038.7	8147.0	51.1	-8146.9	8147.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
88	17200.00	90.88	270.36	100	9037.2	8247.0	51.7	-8246.8	8247.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
89	17300.00	90.88	270.36	100	9035.6	8347.0	52.3	-8346.8	8347.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
90	17400.00	90.88	270.36	100	9034.1	8447.0	53.0	-8446.8	8447.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
91	17500.00	90.88	270.36	100	9032.6	8547.0	53.6	-8546.8	8547.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
92	17600.00	90.88	270.36	100	9031.0	8647.0	54.2	-8646.8	8647.0	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
93	17700.00	90.88	270.36	100	9029.5	8746.9	54.8	-8746.8	8746.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
94	17800.00	90.88	270.36	100	9027.9	8846.9	55.5	-8846.8	8846.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
95	17900.00	90.88	270.36	100	9026.4	8946.9	56.1	-8946.7	8946.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
96	18000.00	90.88	270.36	100	9024.8	9046.9	56.7	-9046.7	9046.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
97	18100.00	90.88	270.36	100	9023.3	9146.9	57.3	-9146.7	9146.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
98	18200.00	90.88	270.36	100	9021.8	9246.9	58.0	-9246.7	9246.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
99	18300.00	90.88	270.36	100	9020.2	9346.9	58.6	-9346.7	9346.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
100	18400.00	90.88	270.36	100	9018.7	9446.9	59.2	-9446.7	9446.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
101	18500.00	90.88	270.36	100	9017.1	9546.9	59.9	-9546.7	9546.9	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
102	18600.00	90.88	270.36	100	9015.6	9646.8	60.5	-9646.6	9646.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
103	18700.00	90.88	270.36	100	9014.0	9746.8	61.1	-9746.6	9746.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
104	18800.00	90.88	270.36	100	9012.5	9846.8	61.7	-9846.6	9846.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
105	18900.00	90.88	270.36	100	9011.0	9946.8	62.4	-9946.6	9946.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
106	19000.00	90.88	270.36	100	9009.4	10046.8	63.0	-10046.6	10046.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
107	19100.00	90.88	270.36	100	9007.9	10146.8	63.6	-10146.6	10146.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
108	19200.00	90.88	270.36	100	9006.3	10246.8	64.2	-10246.6	10246.8	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10
109	19281.67	90.88	270.36	81.674	9005.1	10328.4	64.8	-10328.2	10328.4	270.4	0.0	0.0	9164.4	-7.4	1.58622	4.72	1E-10