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

APPLICATION OF MEWBOURNE OIL COMPANY FOR A NON-STANDARD OIL SPACING AND PRORATION UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.

Case No. 16497

VERIFIED STATEMENT OF CHARLES CROSBY

COUNTY OF MIDLAND)
) ss.
STATE OF TEXAS)

Charles Crosby, being duly sworn upon his oath, 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 this case. I have been qualified by the Division as an expert petroleum geologist.

3. The following geological plats are attached hereto:

(a) Attachment A is a structure map of the Bone Spring formation, on the Base of the 2nd Bone Spring Sand. It shows that the structure dips gently to the east-southeast. It also shows a line of cross-section.

(b) Attachment B is a gross sand isopach of the Lower 2nd Bone Spring Sand, the test zone for the proposed Parkchester 24/23 B2AD State Com. Well No. 1H. It shows that the sand across the well unit has a uniform thickness of approximately 100 feet.

(c) Attachment C is a west- east cross section. The well logs on the cross-section give a representative sample of the 2nd Bone Spring Sand formation in this area. The target zone for the well is the Lower 2nd Bone Spring Sand, and that zone is continuous across the well unit.

(d) Attachment D is a structure map of the Top of the Wolfcamp formation. It shows that the structure dips gently to the east-southeast. It also shows a line of cross section.

(e) Attachment E is a gross sand isopach of the Lower 3rd Bone Spring Sand, the test zone for the proposed Parkchester 24/23 B3AD State Com. Well No. 2H. It shows that the sand across the wells unit has uniform thickness of approximately 270 feet.

EXHIBIT 4

(f) Attachment F is a west-east cross section. The well logs on the cross-section give a representative sample of the 3rd Bone Spring Sand formation in this area. The target zone for the well is the Lower 3rd Bone Spring Sand, and that zone is continuous across the well unit.

4. I conclude from the maps that:

(a) The horizontal spacing unit is justified from a geologic standpoint.

(b) Each quarter-quarter section in the unit will contribute more or less equally to production.

(c) There is no faulting or other geologic impediment on the area which will affect the drilling of the subject well.

5. Attachment G contains information from other wells drilled in this area. The preference is for laydown units, and the completed wells in the area (recent completions) are apparently commercial.

6. Attachment H are the Survey Calculation Reports for the Parkchester 24/23 B2AD State Com 1H and the Parkchester 24/23 B3AD State Com 2H. The producing intervals of the proposed wells will be orthodox.

Charles Crosby

VERIFICATION

STATE OF TEXAS)
) ss.
COUNTY OF MIDLAND)

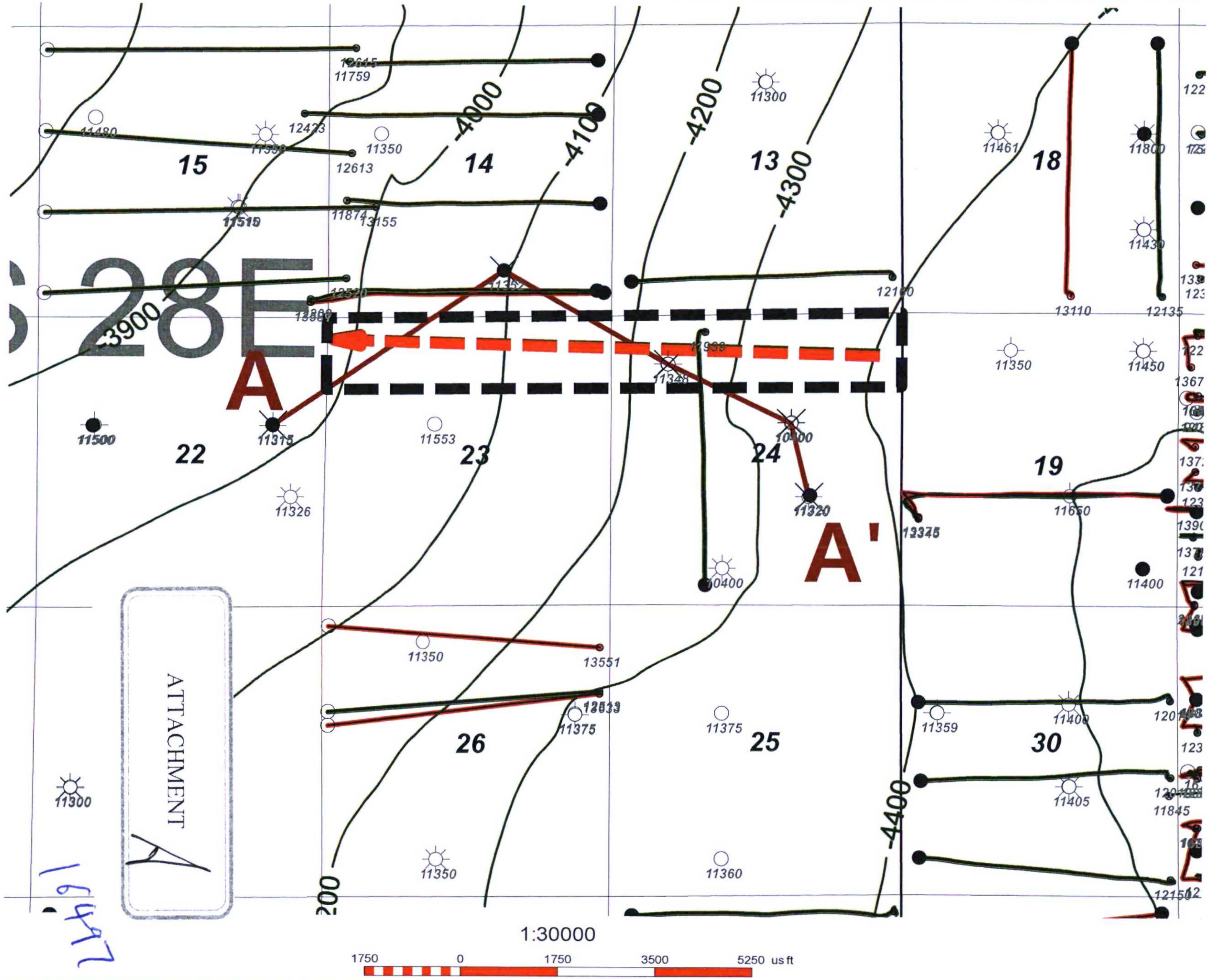
Charles Crosby, being duly sworn upon his oath, deposes and states that: He is a geologist for Mewbourne Oil Company; he is authorized to make this verification on its behalf; he has read the foregoing statement, and knows the contents thereof; and the same is true and correct to the best of his knowledge, information, and belief.

Charles Crosby

SUBSCRIBED AND SWORN TO before me this 29th day of October, 2018 Charles Crosby.

My Commission Expires: January 1, 2022

Notary Public



Horizontal Activity Color Code

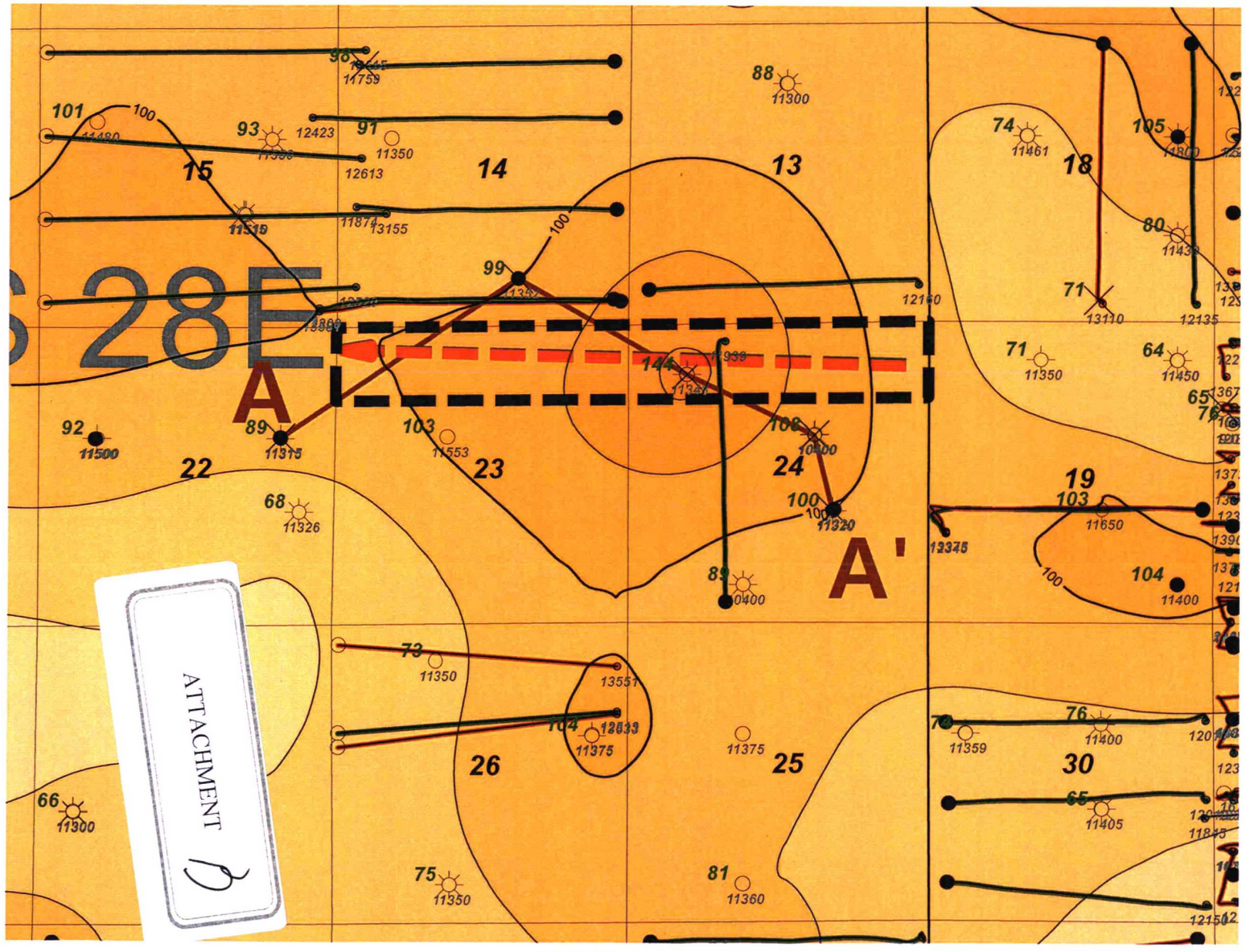
- 2nd Bone Spring Sand
- 3rd Bone Spring Sand

TD

Mewbourne Oil Company

Parkchester 24/23 B2AD State Com 1H
Horizontal Activity Map
Base 2nd BSPG SD Structure (C.I. 100')
Wells TD > 7000'

10/25/2018	Eddy County	New Mexico
		Geol: C. Crosby



1:30000

1750 0 1750 3500 5250 us ft

Lower 2nd BSPG Sd Gross Thickness (C.I. 20')

Color Filled Contour

Entity

0 35 70 105 140

Horizontal Activity Color Code

2nd Bone Spring Sand

3rd Bone Spring Sand

n

Lower 2nd BSPG SD
Gross Thickness (ft)

TD

Mewbourne Oil Company

Parkchester 24/23 B2AD State Com 1H
Horizontal Activity Map
Lower 2nd BSPG Sand Gross Isopach (C.I. 20')
Wells TD > 7000'

10/25/2018	Eddy County	New Mexico
		Geol: C. Crosby

A **W** — **A'** **E**

30015277220000	1382 ft	30015228920000	2472 ft	30015356890000	3417 ft	30015220890000	5061 ft	30015221880000
MEWBOURNE OIL CO PARKCHESTER '24' ST 1 Datum=3393.00 1980 FSL 1650 FEL TWP: 19 S - Range: 28 E - Sec: 24		EXXON CO USA NEW MEXICO 'CU' STA 3 Datum=3379.00 1980 FNL 1980 FEL TWP: 19 S - Range: 28 E - Sec: 24		MEWBOURNE OIL COMPANY PARKCHESTER 24 ST 2 Datum=3377.00 SE NW NW TWP: 19 S - Range: 28 E - Sec: 24		STEPHENS & JOHNSON OPERATING COMPANY EAST MILLMAN UNIT 218 Datum=3418.00 810 FSL/1980 FEL TWP: 19 S - Range: 28 E - Sec: 14		HONDO OIL & GAS COMPANY HONDO 22 STATE 1 Datum=3383.00 SE NE TWP: 19 S - Range: 28 E - Sec: 22

24J **24G** **24D** **14O** **22H**

Top 2nd BSPG SD

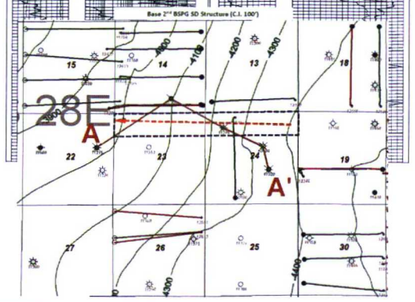
Lower 2nd BSPG SD

Parkchester 24-23 B2AD State Com 1H

Target Interval

0

0



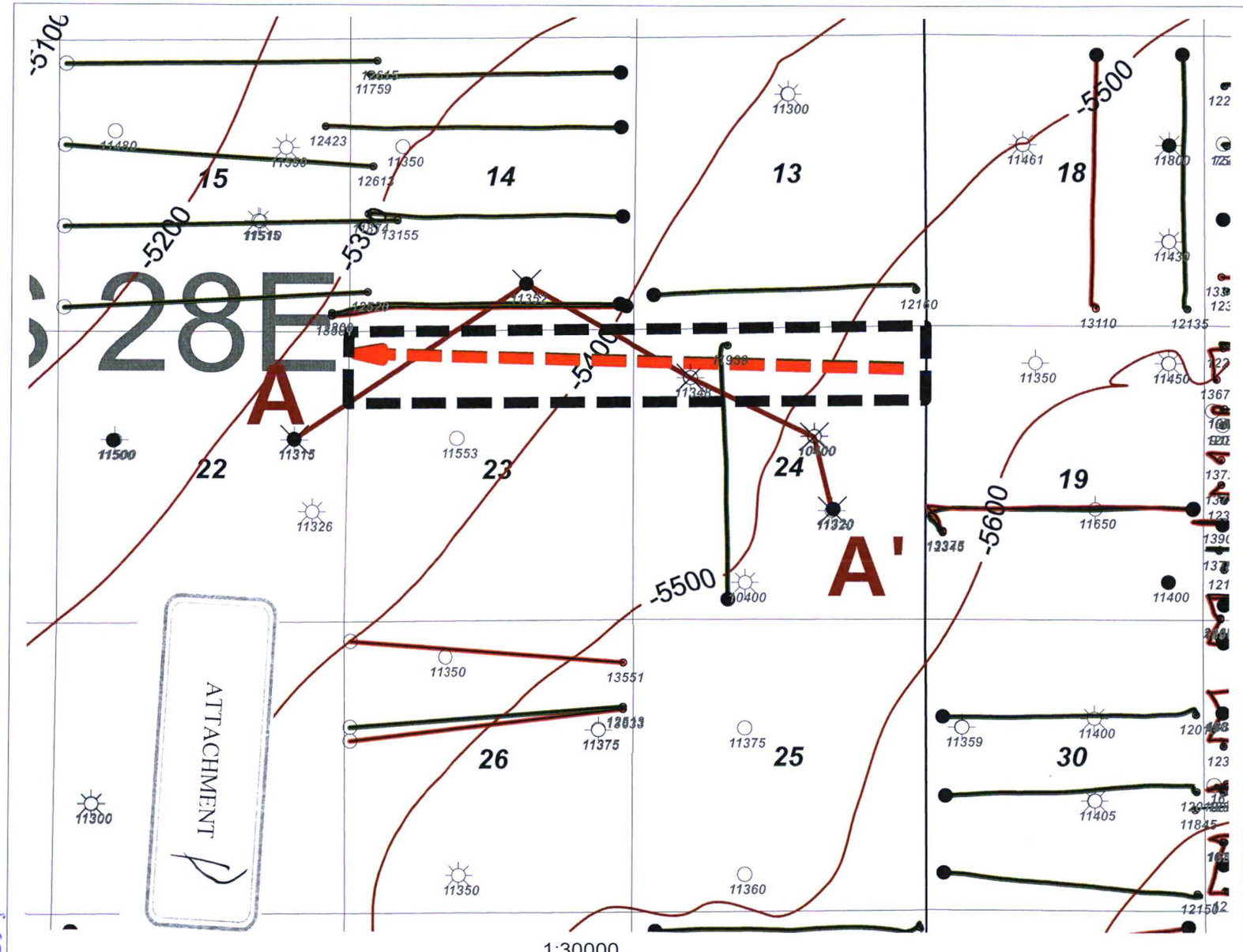
ATTACHMENT C

TD=11348.00
Cum Oil All Zones: 117 bbls
Cum Gas All Zones: 59164 MCF
Cum Water All Zones: 465 bbls

TD=11352.00
Cum Oil All Zones: 14834 bbls
Cum Gas All Zones: 28599 MCF
Cum Water All Zones: 93521 bbls

TD=11315.00
Cum Oil All Zones: 652 bbls
Cum Gas All Zones: 71273 MCF

Parkchester 24-23 B2AD State Com 1H Cross Section Exhibit (A-A')



ATTACHMENT 1

Horizontal Activity Color Code

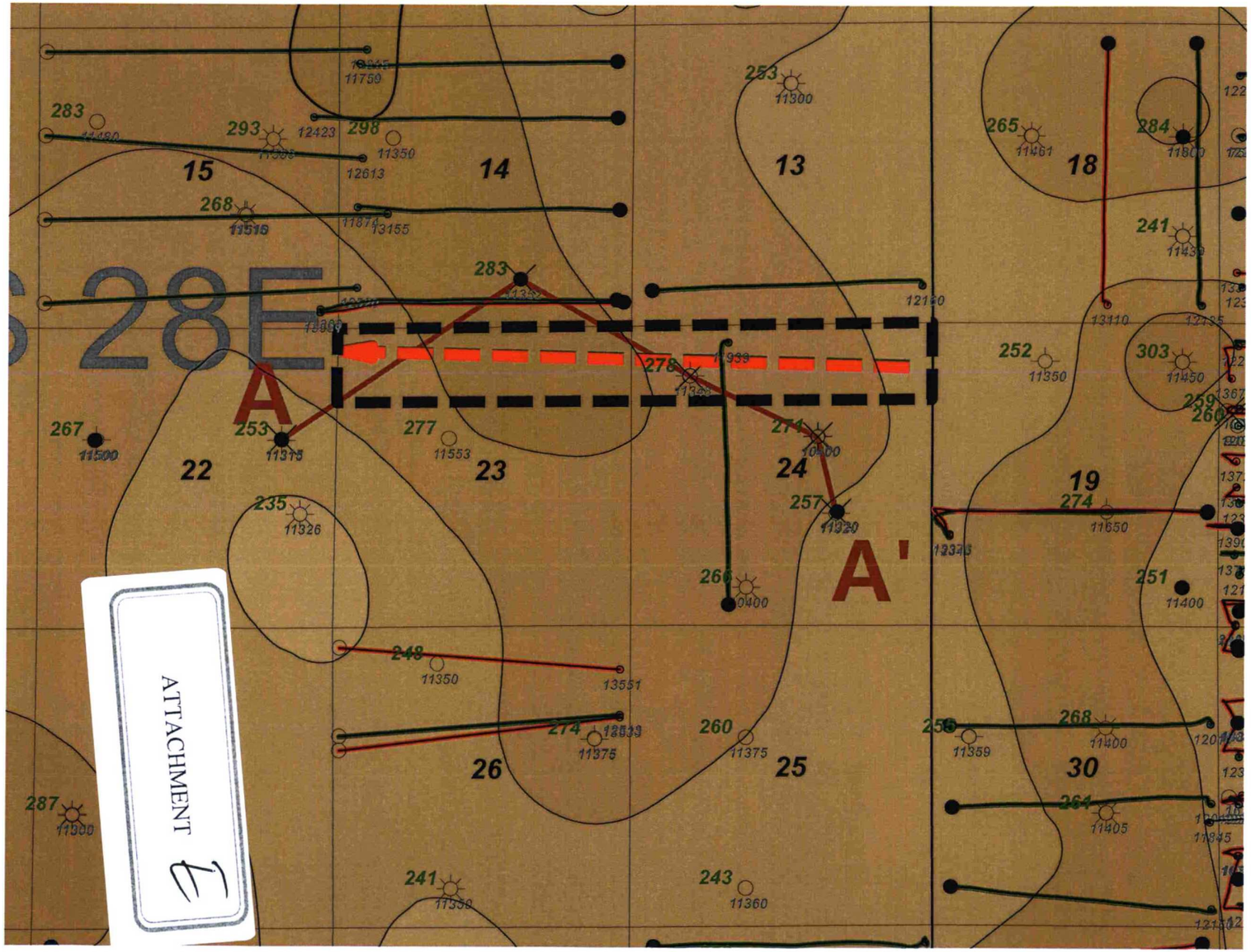
- 2nd Bone Spring Sand
- 3rd Bone Spring Sand

TD

Mewbourne Oil Company

Parkchester 24/23 B3AD State Com 2H
Horizontal Activity Map
Top WFMP Structure (C.I. 100')
Wells TD > 7000'

10/25/2018	Eddy County	New Mexico
		Geol: C. Crosby



1:30000

1750 0 1750 3500 5250 us ft

Lower 3rd BSPG SD Gros Thickness (C.I. 20')
Color Filled Contour
Entity
0 75 150 225 300

Horizontal Activity Color Code

2nd Bone Spring Sand

3rd Bone Spring Sand

n

Lower 3rd BSPG SD Gross Thickness (ft)

TD

Mewbourne Oil Company

Parkchester 24/23 B3AD State Com 2H
Horizontal Activity Map
Lower 3rd BSPG Sand Gross Isopach (C.I. 20')
Wells TD > 7000'

10/25/2018	Eddy County	New Mexico
		Geol: C. Crosby

A **W** — **A'** **E**

30015221880000	5061 ft	30015220890000	3417 ft	30015356890000	2472 ft	30015228920000	1382 ft	30015277220000
HONDO OIL & GAS COMPANY HONDO 22 STATE 1 Datum=3383.00 SE NE TWP: 19 S - Range: 28 E - Sec. 22		STEPHENS & JOHNSON OPERATING COMPANY EAST MILLMAN UNIT 218 Datum=3418.00 810 FSL/1980 FEL TWP: 19 S - Range: 28 E - Sec. 14		MEWBOURNE OIL COMPANY PARKCHESTER 24 ST 2 Datum=3377.00 SE NW NW TWP: 19 S - Range: 28 E - Sec. 24		EXXON CO USA NEW MEXICO 'CU' STA 3 Datum=3379.00 1980 FNL 1980 FEL TWP: 19 S - Range: 28 E - Sec. 24		MEWBOURNE OIL CO PARKCHESTER '24' ST 1 Datum=3393.00 1980 FSL 1650 FEL TWP: 19 S - Range: 28 E - Sec. 24

24J **24G** **24D** **14O** **22H**

500

3rd BSPG SD

Lower 3rd BSPG SDs

Parkchester 24/23 B3AD State Com 2H

ATTACHMENT F

0

Top WFMP

Top WFMP Structure (C.I. 100')

28E

A

A'

Rec: 20.00 BBL O
500.00 CC O
2.00 CF G

TD=11352.00
Cum Oil All Zones: 14834 bbls
Cum Gas All Zones: 28599 MCF
Cum Water All Zones: 93521 bbls

TD=11348.00
Cum Oil All Zones: 117 bbls
Cum Gas All Zones: 59164 MCF
Cum Water All Zones: 465 bbls

TD=10400.00

TD=11320.00

500

Target Interval

0

16497

Parkchester 24/23 B3AD State Com 2H
Cross Section Exhibit (A-A')

Parkchester Area Bone Spring Production Table									
Well Name	Operator	API	Location	Comp Date	Cum Oil (Mbo)	Cum Gas (Bcf)	Cum Water (MBW)	NS/EW	HZ Target
Parkchester 24 St 3H	Mewbourne	3001537998	24C/19S/28E	11/18/2010	34.6	0.1	78.4	NS	Lower 2nd BSPG SD
Phantom 18 State 2H	COG	3001538258	18O/19S/29E	6/21/2011	62.1	0.2	114.9	NS	Lower 3rd BSPG SD
Palmillo 14 State 1H	Apache	3001539027	14I/19S/28E	11/1/2014	132.6	0.4	177.9	EW	Lower 2nd BSPG SD
Phantom 18 State 1H	COG	3001539612	18P/19S/29E	9/28/2012	41.8	0.1	86.1	NS	Lower 2nd BSPG SD
Mirage 30 PM State Com 1H	Mewbourne	3001540753	30P/19S/29E	4/7/2013	209.2	0.6	163.7	EW	Lower 2nd BSPG SD
Mirage 30 IL State Com 1H	Mewbourne	3001541306	30I/19S/29E	7/11/2014	128.1	0.4	156.1	EW	Lower 2nd BSPG SD
Rattlesnake 13 PM State 1H	Mewbourne	3001541727	13P/19S/28E	9/25/2014	94.6	0.1	225.1	EW	Lower 2nd BSPG SD
Mirage 30 B2HE State Com 1H	Mewbourne	3001542131	30H/19S/29E	3/23/2015	81.2	0.3	171.3	EW	Lower 2nd BSPG SD
Palmillo 14 State 4H	Apache	3001542543	14D/19S/28E	3/4/2015	66.8	0.2	178.1	EW	Lower 2nd BSPG SD
Palmillo 14 15 State 301H	Apache	3001544040	15P/19S/28E	9/8/2017	141.5	0.4	277.2	EW	Lower 3rd BSPG SD
Palmillo 14 15 State 2H	Apache	3001544043	15P/19S/28E	9/16/207	169.7	0.6	308.3	EW	Lower 2nd BSPG SD
Palmillo 14 15 State 3H	Apache	3001544045	15H/19S/28E	9/17/2017	72.5	0.3	252.6	EW	Lower 2nd BSPG SD
Marbob 19 State Com 123H	Matador	3001544687	19L/19S/29E	3/1/2018	17.5	0.2	45.7	EW	Lower 2nd BSPG SD
Marbob 19 State Com 133H	Matador	3001544688	19L/19S/29E	5/29/2018	29.4	0.2	99.4	EW	Lower 2nd BSPG SD
Palmillo 26 State Com 314H	Apache	3001544906	26H/19S/28E	Pending				EW	Lower 3rd BSPG SD
Palmillo 26 State Com 316H	Apache	3001544908	26A/19S/28E	Pending				EW	Lower 3rd BSPG SD
Palmillo 26 State Com 213H	Apache	3001545040	26H/19S/28E	Pending				EW	Lower 2nd BSPG SD
Palmillo 14 15 State 205H	Apache	3001544667	14M/19S/28E	Pending				EW	Lower 2nd BSPG SD
Palmillo 14 15 State 207H	Apache	3001544668	14E/19S/28E	Pending				EW	Lower 2nd BSPG SD
Palmillo 14 15 State Com 208H	Apache	3001544669	14D/19S/28E	Pending				EW	Lower 2nd BSPG SD
Palmillo 14 15 State 206H	Apache	3001544675	14L/19S/28E	Pending				EW	Lower 2nd BSPG SD

ATTACHMENT 6

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Parkchester 24/23 B2AD State Com 1H
KOP 7281.54
SL: 750 FNL & 400 FEL Sec 24-19S-28E
BHL: 400 FNL & 100 FWL Sec 23-19S-28E

Target KBTVD: 7,759 Feet 7759.00
Target Angle: 92.45 Degrees 92.45
Section Plane: 271.38 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	7281.54	0.00	271.38	N/A	7281.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7281.5	477.5	1E-12	4.74	#VALUE!
1	7358.58	9.25	271.38	77.046	7358.2	6.2	0.1	-6.2	6.2	271.4	12.0	12.0	7358.5	400.5	0.161364066	4.74	0.161364
2	7435.63	18.49	271.38	77.046	7433.0	24.6	0.6	-24.6	24.6	271.4	12.0	12.0	7434.0	325.0	0.322728131	4.74	0.161364
3	7512.67	27.74	271.38	77.046	7503.7	54.9	1.3	-54.8	54.9	271.4	12.0	12.0	7506.1	252.9	0.484092197	4.74	0.161364
4	7589.72	36.98	271.38	77.046	7568.8	96.1	2.3	-96.0	96.1	271.4	12.0	12.0	7572.9	186.1	0.645456262	4.74	0.161364
5	7666.76	46.23	271.38	77.046	7626.3	147.2	3.6	-147.1	147.2	271.4	12.0	12.0	7632.6	126.4	0.806820328	4.74	0.161364
6	7743.81	55.47	271.38	77.046	7674.9	206.8	5.0	-206.8	206.8	271.4	12.0	12.0	7683.8	75.2	0.968184393	4.74	0.161364
7	7820.85	64.72	271.38	77.046	7713.3	273.6	6.6	-273.5	273.6	271.4	12.0	12.0	7725.0	34.0	1.129548459	4.74	0.161364
8	7897.90	73.96	271.38	77.046	7740.4	345.6	8.3	-345.5	345.6	271.4	12.0	12.0	7755.2	3.8	1.290912524	4.74	0.161364
9	7974.95	83.21	271.38	77.046	7755.7	421.0	10.2	-420.9	421.0	271.4	12.0	12.0	7773.7	-14.7	1.45227659	4.74	0.161364
10	8051.99	92.45	271.38	77.046	7758.6	497.9	12.0	-497.8	497.9	271.4	12.0	12.0	7779.9	-20.9	1.613640655	4.74	0.161364
11	8100.00	92.45	271.38	48.008	7756.5	545.9	13.2	-545.7	545.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
12	8200.00	92.45	271.38	100	7752.2	645.8	15.6	-645.6	645.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
13	8300.00	92.45	271.38	100	7747.9	745.7	18.0	-745.5	745.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
14	8400.00	92.45	271.38	100	7743.7	845.6	20.4	-845.4	845.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
15	8500.00	92.45	271.38	100	7739.4	945.5	22.8	-945.2	945.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
16	8600.00	92.45	271.38	100	7735.1	1045.4	25.3	-1045.1	1045.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
17	8700.00	92.45	271.38	100	7730.8	1145.3	27.7	-1145.0	1145.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
18	8800.00	92.45	271.38	100	7726.5	1245.2	30.1	-1244.9	1245.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
19	8900.00	92.45	271.38	100	7722.2	1345.1	32.5	-1344.8	1345.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
20	9000.00	92.45	271.38	100	7718.0	1445.1	34.9	-1444.6	1445.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
21	9100.00	92.45	271.38	100	7713.7	1545.0	37.3	-1544.5	1545.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
22	9200.00	92.45	271.38	100	7709.4	1644.9	39.7	-1644.4	1644.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
23	9300.00	92.45	271.38	100	7705.1	1744.8	42.2	-1744.3	1744.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
24	9400.00	92.45	271.38	100	7700.8	1844.7	44.6	-1844.1	1844.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
25	9500.00	92.45	271.38	100	7696.5	1944.6	47.0	-1944.0	1944.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
26	9600.00	92.45	271.38	100	7692.3	2044.5	49.4	-2043.9	2044.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
27	9700.00	92.45	271.38	100	7688.0	2144.4	51.8	-2143.8	2144.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
28	9800.00	92.45	271.38	100	7683.7	2244.3	54.2	-2243.7	2244.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
29	9900.00	92.45	271.38	100	7679.4	2344.2	56.6	-2343.5	2344.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
30	10000.00	92.45	271.38	100	7675.1	2444.1	59.0	-2443.4	2444.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
31	10100.00	92.45	271.38	100	7670.8	2544.0	61.5	-2543.3	2544.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
32	10200.00	92.45	271.38	100	7666.6	2644.0	63.9	-2643.2	2644.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
33	10300.00	92.45	271.38	100	7662.3	2743.9	66.3	-2743.1	2743.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
34	10400.00	92.45	271.38	100	7658.0	2843.8	68.7	-2842.9	2843.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
35	10500.00	92.45	271.38	100	7653.7	2943.7	71.1	-2942.8	2943.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
36	10600.00	92.45	271.38	100	7649.4	3043.6	73.5	-3042.7	3043.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
37	10700.00	92.45	271.38	100	7645.1	3143.5	75.9	-3142.6	3143.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
38	10800.00	92.45	271.38	100	7640.9	3243.4	78.4	-3242.5	3243.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
39	10900.00	92.45	271.38	100	7636.6	3343.3	80.8	-3342.3	3343.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
40	11000.00	92.45	271.38	100	7632.3	3443.2	83.2	-3442.2	3443.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
41	11100.00	92.45	271.38	100	7628.0	3543.1	85.6	-3542.1	3543.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
42	11200.00	92.45	271.38	100	7623.7	3643.0	88.0	-3642.0	3643.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
43	11300.00	92.45	271.38	100	7619.4	3742.9	90.4	-3741.9	3742.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
44	11400.00	92.45	271.38	100	7615.2	3842.9	92.8	-3841.7	3842.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
45	11500.00	92.45	271.38	100	7610.9	3942.8	95.3	-3941.6	3942.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
46	11600.00	92.45	271.38	100	7606.6	4042.7	97.7	-4041.5	4042.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
47	11700.00	92.45	271.38	100	7602.3	4142.6	100.1	-4141.4	4142.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
48	11800.00	92.45	271.38	100	7598.0	4242.5	102.5	-4241.2	4242.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
49	11900.00	92.45	271.38	100	7593.7	4342.4	104.9	-4341.1	4342.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
50	12000.00	92.45	271.38	100	7589.5	4442.3	107.3	-4441.0	4442.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
51	12100.00	92.45	271.38	100	7585.2	4542.2	109.7	-4540.9	4542.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
52	12200.00	92.45	271.38	100	7580.9	4642.1	112.1	-4640.8	4642.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
53	12300.00	92.45	271.38	100	7576.6	4742.0	114.6	-4740.6	4742.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
54	12400.00	92.45	271.38	100	7572.3	4841.9	117.0	-4840.5	4841.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
55	12500.00	92.45	271.38	100	7568.0	4941.8	119.4	-4940.4	4941.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
56	12600.00	92.45	271.38	100	7563.8	5041.7	121.8	-5040.3	5041.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10

ATTACHMENT A

57	12700.00	92.45	271.38	100	7559.5	5141.7	124.2	-5140.2	5141.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
58	12800.00	92.45	271.38	100	7555.2	5241.6	126.6	-5240.0	5241.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
59	12900.00	92.45	271.38	100	7550.9	5341.5	129.0	-5339.9	5341.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
60	13000.00	92.45	271.38	100	7546.6	5441.4	131.5	-5439.8	5441.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
61	13100.00	92.45	271.38	100	7542.3	5541.3	133.9	-5539.7	5541.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
62	13200.00	92.45	271.38	100	7538.1	5641.2	136.3	-5639.6	5641.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
63	13300.00	92.45	271.38	100	7533.8	5741.1	138.7	-5739.4	5741.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
64	13400.00	92.45	271.38	100	7529.5	5841.0	141.1	-5839.3	5841.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
65	13500.00	92.45	271.38	100	7525.2	5940.9	143.5	-5939.2	5940.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
66	13600.00	92.45	271.38	100	7520.9	6040.8	145.9	-6039.1	6040.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
67	13700.00	92.45	271.38	100	7516.7	6140.7	148.4	-6138.9	6140.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
68	13800.00	92.45	271.38	100	7512.4	6240.6	150.8	-6238.8	6240.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
69	13900.00	92.45	271.38	100	7508.1	6340.6	153.2	-6338.7	6340.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
70	14000.00	92.45	271.38	100	7503.8	6440.5	155.6	-6438.6	6440.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
71	14100.00	92.45	271.38	100	7499.5	6540.4	158.0	-6538.5	6540.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
72	14200.00	92.45	271.38	100	7495.2	6640.3	160.4	-6638.3	6640.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
73	14300.00	92.45	271.38	100	7491.0	6740.2	162.8	-6738.2	6740.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
74	14400.00	92.45	271.38	100	7486.7	6840.1	165.2	-6838.1	6840.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
75	14500.00	92.45	271.38	100	7482.4	6940.0	167.7	-6938.0	6940.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
76	14600.00	92.45	271.38	100	7478.1	7039.9	170.1	-7037.9	7039.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
77	14700.00	92.45	271.38	100	7473.8	7139.8	172.5	-7137.7	7139.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
78	14800.00	92.45	271.38	100	7469.5	7239.7	174.9	-7237.6	7239.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
79	14900.00	92.45	271.38	100	7465.3	7339.6	177.3	-7337.5	7339.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
80	15000.00	92.45	271.38	100	7461.0	7439.5	179.7	-7437.4	7439.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
81	15100.00	92.45	271.38	100	7456.7	7539.5	182.1	-7537.3	7539.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
82	15200.00	92.45	271.38	100	7452.4	7639.4	184.6	-7637.1	7639.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
83	15300.00	92.45	271.38	100	7448.1	7739.3	187.0	-7737.0	7739.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
84	15400.00	92.45	271.38	100	7443.8	7839.2	189.4	-7836.9	7839.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
85	15500.00	92.45	271.38	100	7439.6	7939.1	191.8	-7936.8	7939.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
86	15600.00	92.45	271.38	100	7435.3	8039.0	194.2	-8036.7	8039.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
87	15700.00	92.45	271.38	100	7431.0	8138.9	196.6	-8136.5	8138.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
88	15800.00	92.45	271.38	100	7426.7	8238.8	199.0	-8236.4	8238.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
89	15900.00	92.45	271.38	100	7422.4	8338.7	201.5	-8336.3	8338.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
90	16000.00	92.45	271.38	100	7418.1	8438.6	203.9	-8436.2	8438.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
91	16100.00	92.45	271.38	100	7413.9	8538.5	206.3	-8536.0	8538.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
92	16200.00	92.45	271.38	100	7409.6	8638.4	208.7	-8635.9	8638.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
93	16300.00	92.45	271.38	100	7405.3	8738.4	211.1	-8735.8	8738.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
94	16400.00	92.45	271.38	100	7401.0	8838.3	213.5	-8835.7	8838.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
95	16500.00	92.45	271.38	100	7396.7	8938.2	215.9	-8935.6	8938.2	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
96	16600.00	92.45	271.38	100	7392.4	9038.1	218.3	-9035.4	9038.1	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
97	16700.00	92.45	271.38	100	7388.2	9138.0	220.8	-9135.3	9138.0	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
98	16800.00	92.45	271.38	100	7383.9	9237.9	223.2	-9235.2	9237.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
99	16900.00	92.45	271.38	100	7379.6	9337.8	225.6	-9335.1	9337.8	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
100	17000.00	92.45	271.38	100	7375.3	9437.7	228.0	-9435.0	9437.7	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
101	17100.00	92.45	271.38	100	7371.0	9537.6	230.4	-9534.8	9537.6	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
102	17200.00	92.45	271.38	100	7366.7	9637.5	232.8	-9634.7	9637.5	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
103	17300.00	92.45	271.38	100	7362.5	9737.4	235.2	-9734.6	9737.4	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
104	17400.00	92.45	271.38	100	7358.2	9837.3	237.7	-9834.5	9837.3	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10
105	17478.58	92.45	271.38	78.583	7354.8	9915.9	239.6	-9913.0	9915.9	271.4	0.0	0.0	7779.9	-20.9	1.613640655	4.74	1E-10

Mewbourne Oil Company

SURVEY CALCULATION REPORT
Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Parkchester 24/23 B3AD State Com 2H
KOP 8319.54
SL: 780 FNL & 400 FEL Sec 24-19S-28E
BHL: 400 FNL & 100 FWL Sec 23-19S-28E

Target KBTVD:	8,797	Feet	8797.00
Target Angle:	91.42	Degrees	91.42
Section Plane:	271.56	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	8319.54	0.00	271.56	N/A	8319.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	8319.5	477.5	1E-12	4.74	#VALUE!
1	8395.72	9.14	271.56	76.187	8395.4	6.1	0.2	-6.1	6.1	271.6	12.0	12.0	8395.6	401.4	0.15956655	4.74	0.159567
2	8471.91	18.28	271.56	76.187	8469.3	24.1	0.7	-24.1	24.1	271.6	12.0	12.0	8469.9	327.1	0.3191331	4.74	0.159567
3	8548.10	27.43	271.56	76.187	8539.5	53.7	1.5	-53.6	53.7	271.6	12.0	12.0	8540.8	256.2	0.47869965	4.74	0.159567
4	8624.28	36.57	271.56	76.187	8604.0	94.0	2.6	-94.0	94.0	271.6	12.0	12.0	8606.3	190.7	0.63826619	4.74	0.159567
5	8700.47	45.71	271.56	76.187	8661.3	144.1	3.9	-144.0	144.1	271.6	12.0	12.0	8664.9	132.1	0.79783274	4.74	0.159567
6	8776.66	54.85	271.56	76.187	8710.0	202.6	5.5	-202.5	202.6	271.6	12.0	12.0	8715.0	82.0	0.95739929	4.74	0.159567
7	8852.85	64.00	271.56	76.187	8748.7	268.1	7.3	-268.0	268.1	271.6	12.0	12.0	8755.3	41.7	1.11696584	4.74	0.159567
8	8929.03	73.14	271.56	76.187	8776.5	339.0	9.2	-338.9	339.0	271.6	12.0	12.0	8784.9	12.1	1.27653239	4.74	0.159567
9	9005.22	82.28	271.56	76.187	8792.7	413.3	11.2	-413.2	413.3	271.6	12.0	12.0	8803.0	-6.0	1.43609894	4.74	0.159567
10	9081.41	91.42	271.56	76.187	8796.9	489.3	13.3	-489.2	489.3	271.6	12.0	12.0	8809.0	-12.0	1.59566548	4.74	0.159567
11	9100.00	91.42	271.56	18.591	8796.4	507.9	13.8	-507.7	507.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
12	9200.00	91.42	271.56	100	8793.9	607.9	16.5	-607.7	607.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
13	9300.00	91.42	271.56	100	8791.4	707.9	19.3	-707.6	707.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
14	9400.00	91.42	271.56	100	8788.9	807.8	22.0	-807.5	807.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
15	9500.00	91.42	271.56	100	8786.4	907.8	24.7	-907.5	907.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
16	9600.00	91.42	271.56	100	8784.0	1007.8	27.4	-1007.4	1007.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
17	9700.00	91.42	271.56	100	8781.5	1107.7	30.1	-1107.3	1107.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
18	9800.00	91.42	271.56	100	8779.0	1207.7	32.8	-1207.3	1207.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
19	9900.00	91.42	271.56	100	8776.5	1307.7	35.6	-1307.2	1307.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
20	10000.00	91.42	271.56	100	8774.0	1407.6	38.3	-1407.1	1407.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
21	10100.00	91.42	271.56	100	8771.5	1507.6	41.0	-1507.1	1507.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
22	10200.00	91.42	271.56	100	8769.0	1607.6	43.7	-1607.0	1607.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
23	10300.00	91.42	271.56	100	8766.6	1707.6	46.4	-1706.9	1707.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
24	10400.00	91.42	271.56	100	8764.1	1807.5	49.2	-1806.9	1807.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
25	10500.00	91.42	271.56	100	8761.6	1907.5	51.9	-1906.8	1907.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
26	10600.00	91.42	271.56	100	8759.1	2007.5	54.6	-2006.7	2007.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
27	10700.00	91.42	271.56	100	8756.6	2107.4	57.3	-2106.6	2107.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
28	10800.00	91.42	271.56	100	8754.1	2207.4	60.0	-2206.6	2207.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
29	10900.00	91.42	271.56	100	8751.6	2307.4	62.8	-2306.5	2307.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
30	11000.00	91.42	271.56	100	8749.1	2407.3	65.5	-2406.4	2407.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
31	11100.00	91.42	271.56	100	8746.7	2507.3	68.2	-2506.4	2507.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
32	11200.00	91.42	271.56	100	8744.2	2607.3	70.9	-2606.3	2607.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
33	11300.00	91.42	271.56	100	8741.7	2707.2	73.6	-2706.2	2707.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
34	11400.00	91.42	271.56	100	8739.2	2807.2	76.4	-2806.2	2807.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
35	11500.00	91.42	271.56	100	8736.7	2907.2	79.1	-2906.1	2907.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
36	11600.00	91.42	271.56	100	8734.2	3007.1	81.8	-3006.0	3007.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
37	11700.00	91.42	271.56	100	8731.7	3107.1	84.5	-3106.0	3107.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
38	11800.00	91.42	271.56	100	8729.3	3207.1	87.2	-3205.9	3207.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
39	11900.00	91.42	271.56	100	8726.8	3307.1	90.0	-3305.8	3307.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
40	12000.00	91.42	271.56	100	8724.3	3407.0	92.7	-3405.8	3407.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
41	12100.00	91.42	271.56	100	8721.8	3507.0	95.4	-3505.7	3507.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
42	12200.00	91.42	271.56	100	8719.3	3607.0	98.1	-3605.6	3607.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
43	12300.00	91.42	271.56	100	8716.8	3706.9	100.8	-3705.6	3706.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
44	12400.00	91.42	271.56	100	8714.3	3806.9	103.5	-3805.5	3806.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
45	12500.00	91.42	271.56	100	8711.8	3906.9	106.3	-3905.4	3906.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
46	12600.00	91.42	271.56	100	8709.4	4006.8	109.0	-4005.4	4006.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
47	12700.00	91.42	271.56	100	8706.9	4106.8	111.7	-4105.3	4106.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
48	12800.00	91.42	271.56	100	8704.4	4206.8	114.4	-4205.2	4206.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
49	12900.00	91.42	271.56	100	8701.9	4306.7	117.1	-4305.2	4306.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
50	13000.00	91.42	271.56	100	8699.4	4406.7	119.9	-4405.1	4406.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
51	13100.00	91.42	271.56	100	8696.9	4506.7	122.6	-4505.0	4506.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
52	13200.00	91.42	271.56	100	8694.4	4606.7	125.3	-4605.0	4606.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
53	13300.00	91.42	271.56	100	8692.0	4706.6	128.0	-4704.9	4706.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
54	13400.00	91.42	271.56	100	8689.5	4806.6	130.7	-4804.8	4806.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
55	13500.00	91.42	271.56	100	8687.0	4906.6	133.5	-4904.7	4906.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
56	13600.00	91.42	271.56	100	8684.5	5006.5	136.2	-5004.7	5006.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10

57	13700.00	91.42	271.56	100	8682.0	5106.5	138.9	-5104.6	5106.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
58	13800.00	91.42	271.56	100	8679.5	5206.5	141.6	-5204.5	5206.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
59	13900.00	91.42	271.56	100	8677.0	5306.4	144.3	-5304.5	5306.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
60	14000.00	91.42	271.56	100	8674.5	5406.4	147.1	-5404.4	5406.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
61	14100.00	91.42	271.56	100	8672.1	5506.4	149.8	-5504.3	5506.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
62	14200.00	91.42	271.56	100	8669.6	5606.3	152.5	-5604.3	5606.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
63	14300.00	91.42	271.56	100	8667.1	5706.3	155.2	-5704.2	5706.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
64	14400.00	91.42	271.56	100	8664.6	5806.3	157.9	-5804.1	5806.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
65	14500.00	91.42	271.56	100	8662.1	5906.3	160.7	-5904.1	5906.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
66	14600.00	91.42	271.56	100	8659.6	6006.2	163.4	-6004.0	6006.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
67	14700.00	91.42	271.56	100	8657.1	6106.2	166.1	-6103.9	6106.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
68	14800.00	91.42	271.56	100	8654.7	6206.2	168.8	-6203.9	6206.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
69	14900.00	91.42	271.56	100	8652.2	6306.1	171.5	-6303.8	6306.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
70	15000.00	91.42	271.56	100	8649.7	6406.1	174.2	-6403.7	6406.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
71	15100.00	91.42	271.56	100	8647.2	6506.1	177.0	-6503.7	6506.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
72	15200.00	91.42	271.56	100	8644.7	6606.0	179.7	-6603.6	6606.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
73	15300.00	91.42	271.56	100	8642.2	6706.0	182.4	-6703.5	6706.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
74	15400.00	91.42	271.56	100	8639.7	6806.0	185.1	-6803.5	6806.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
75	15500.00	91.42	271.56	100	8637.2	6905.9	187.8	-6903.4	6905.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
76	15600.00	91.42	271.56	100	8634.8	7005.9	190.6	-7003.3	7005.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
77	15700.00	91.42	271.56	100	8632.3	7105.9	193.3	-7103.3	7105.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
78	15800.00	91.42	271.56	100	8629.8	7205.9	196.0	-7203.2	7205.9	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
79	15900.00	91.42	271.56	100	8627.3	7305.8	198.7	-7303.1	7305.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
80	16000.00	91.42	271.56	100	8624.8	7405.8	201.4	-7403.0	7405.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
81	16100.00	91.42	271.56	100	8622.3	7505.8	204.2	-7503.0	7505.8	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
82	16200.00	91.42	271.56	100	8619.8	7605.7	206.9	-7602.9	7605.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
83	16300.00	91.42	271.56	100	8617.4	7705.7	209.6	-7702.8	7705.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
84	16400.00	91.42	271.56	100	8614.9	7805.7	212.3	-7802.8	7805.7	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
85	16500.00	91.42	271.56	100	8612.4	7905.6	215.0	-7902.7	7905.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
86	16600.00	91.42	271.56	100	8609.9	8005.6	217.8	-8002.6	8005.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
87	16700.00	91.42	271.56	100	8607.4	8105.6	220.5	-8102.6	8105.6	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
88	16800.00	91.42	271.56	100	8604.9	8205.5	223.2	-8202.5	8205.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
89	16900.00	91.42	271.56	100	8602.4	8305.5	225.9	-8302.4	8305.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
90	17000.00	91.42	271.56	100	8599.9	8405.5	228.6	-8402.4	8405.5	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
91	17100.00	91.42	271.56	100	8597.5	8505.4	231.3	-8502.3	8505.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
92	17200.00	91.42	271.56	100	8595.0	8605.4	234.1	-8602.2	8605.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
93	17300.00	91.42	271.56	100	8592.5	8705.4	236.8	-8702.2	8705.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
94	17400.00	91.42	271.56	100	8590.0	8805.4	239.5	-8802.1	8805.4	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
95	17500.00	91.42	271.56	100	8587.5	8905.3	242.2	-8902.0	8905.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
96	17600.00	91.42	271.56	100	8585.0	9005.3	244.9	-9002.0	9005.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
97	17700.00	91.42	271.56	100	8582.5	9105.3	247.7	-9101.9	9105.3	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
98	17800.00	91.42	271.56	100	8580.1	9205.2	250.4	-9201.8	9205.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
99	17900.00	91.42	271.56	100	8577.6	9305.2	253.1	-9301.8	9305.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
100	18000.00	91.42	271.56	100	8575.1	9405.2	255.8	-9401.7	9405.2	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
101	18100.00	91.42	271.56	100	8572.6	9505.1	258.5	-9501.6	9505.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
102	18200.00	91.42	271.56	100	8570.1	9605.1	261.3	-9601.6	9605.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
103	18300.00	91.42	271.56	100	8567.6	9705.1	264.0	-9701.5	9705.1	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
104	18400.00	91.42	271.56	100	8565.1	9805.0	266.7	-9801.4	9805.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10
105	18500.00	91.42	271.56	100	8562.6	9905.0	269.4	-9901.4	9905.0	271.6	0.0	0.0	8809.0	-12.0	1.59566548	4.74	1E-10