Results of Directional Survey

API number:	30-025-41575			
OGRID:		Operator:	MEWBOURNE OIL CO	
		Property:	MARATHON ROAD 15 PA FEDERAL	# 1H

surface	ULSTR:	P	15	T	20S	R	34E
				300	FSL	330	FEL
BH Loc	ULSTR:	A	15	T	20S	R	34E
15045	MD	7269.1	TVD	330	FNL	823	FEL
				4950	FSL		
Top Perf/OH	ULSTR:	P	15	T	20S	R	34E
11448	MD	7295.2	TVD	1372	FSL	468	FEL
Bot Perf/OH	ULSTR:	A	15	T	20S	R	34E
15000	MD	7269.8	TVD	375	FNL	818	FEL
				4905	FSL		

	MD	N/S	E/W	VD
	11425	1048.80	-135.90	7295.6
TOP PERFS/OH	**11448**	1071.69	-138.20	7295.24
	11489	1112.50	-142.30	7294.60
	14995	4599.70	-487.50	7269.90
BOT PERFS/OH	**15000**	4604.68	-488.01	7269.82
	15045	4649.50	-492.60	7269.10

NEXT TO LAST	14995	4599.70	-487.50	7269.90
LAST READING	15045	4649.50	-492.60	7269.10
TD	**15045**	4649.50	-492.60	7269.10

Surface Location	300	FS	330	FE
Projected BHL	4950	FS	823	FE
Location of				
Top Perfs/OH	1372	FS	468	FE
Bottom Perfs/OH	4905	FS	818	FE

SUMMARY of Subsurface Locations

Surface Location	P-15-20S-34E	300	FS	330	FE	Vert. Depth
Top Perfs/OH	P-15-20S-34E	1372	FS	468	FE	7295.24
Bottom Perfs/OH	A-15-20S-34E	4905	FS	818	FE	7269.82
Projected TD	A-15-20S-34E	4950	FS	823	FE	7269.10

Mewbourne Oil Co

Lea County, New Mexico
Sec 15, T20S, R34E
Marathon Road 15 PA Fed #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

18 February, 2014

DDC
The DIRECTIONAL DRILLING COMPANY

Company Name: Mewbourne Oil Co
Marathon Road 15 PA Fed #1H
Lea County, New Mexico
Rig: Patterson #444
Created By: James Dawson
Date: 02/17/2014

Marathon Road 15 PA Fed #1H
Lea County, New Mexico
Q131122 & WT-140069
Design #2

Mewbourne Oil Company

T G M

Azimuths to Grid North
Magnetic North: 6.85°

Magnetic Field
Strength: 48563.8snT
Dip Angle: 60.44°
Date: 1/20/2014
Model: IGRF2010

RDC
The DIRECTIONAL DRILLING COMPANY

PROJECT DETAILS:	Lea County, New Mexico
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Marathon Road 15 PA Fed #1H
Ground Level: 3652.0

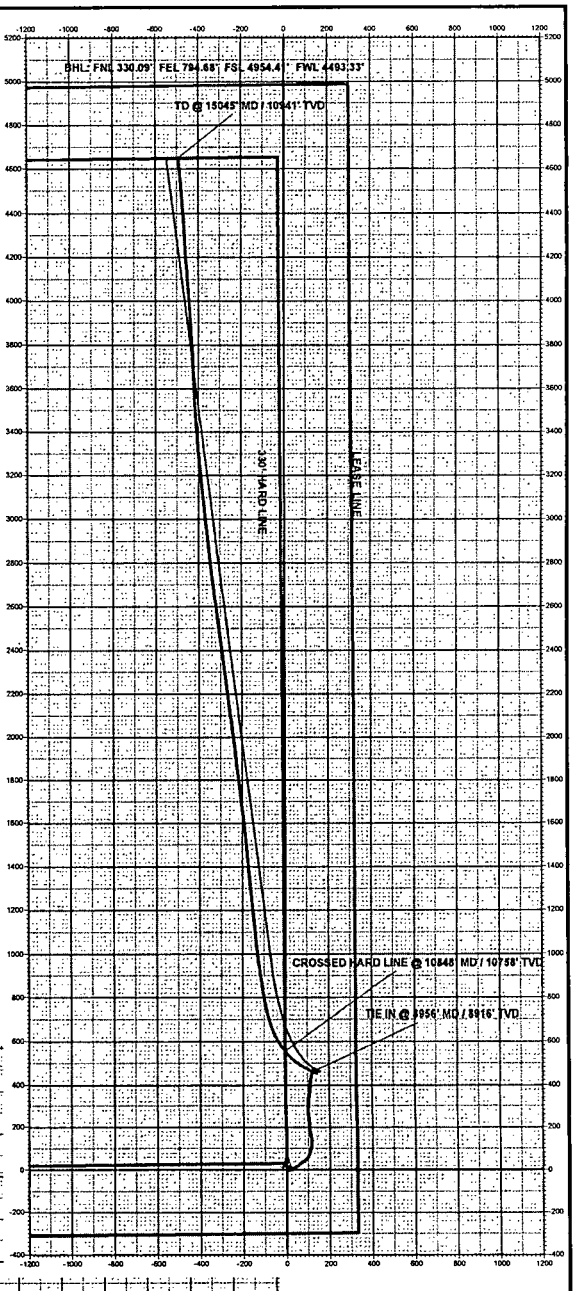
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	570747.77	744377.69	32° 33' 59.722 N	103° 32' 24.356 W

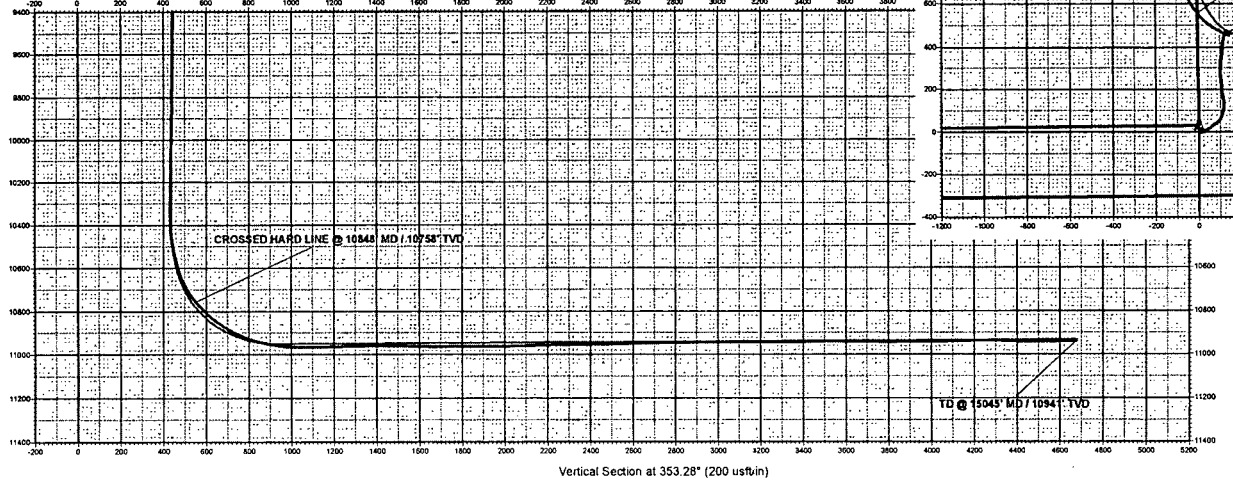
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Marathon Road 15 PA Fed #1H D#1 - plan hits target center	10932.0	4647.3	-647.4	576396.05	743830.30	32° 34' 45.747 N	103° 32' 30.348 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
8956.0	0.83	107.87	8915.9	466.0	139.5	446.5	568.7	TIE IN @ 8956' MD / 8916' TVD
10847.9	44.98	321.60	10757.6	553.6	-4.0	550.3	768.9	CROSSED HARD LINE @ 10848' MD / 10758' TVD
15045.0	90.90	354.20	10941.1	4649.5	-492.6	4675.2	4897.6	TD @ 15045' MD / 10941' TVD





Vertical Section at 353.28° (200 usft/in)

DDC
Survey Report

Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	TVD Reference:	Mean Sea Level
Site:	Sec 15, T20S, R34E	MD Reference:	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project Lea County, New Mexico

Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Sec 15, T20S, R34E

Site Position:		Northing:	570,747.77 usft	Latitude:	32° 33' 59.722 N
From:	Lat/Long	Easting:	744,377.69 usft	Longitude:	103° 32' 24.356 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.43 °

Well Marathon Road 15 PA Fed #1H

Well Position	+N/-S	0.0 usft	Northing:	570,747.77 usft	Latitude:	32° 33' 59.722 N
	+E/-W	0.0 usft	Easting:	744,377.69 usft	Longitude:	103° 32' 24.356 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,652.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/20/2014	7.28	60.44	48,564

Design Wellbore #1

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	-3,672.0	0.0	0.0	353.28

Survey Program Date 2/18/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,956.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
9,004.0	15,045.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	-3,672.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.29	50.23	-3,572.0	0.2	0.2	0.1	0.29	0.29	0.00
200.0	0.23	340.10	-3,472.0	0.5	0.3	0.5	0.30	-0.06	-70.13
300.0	0.33	27.78	-3,372.0	1.0	0.4	0.9	0.24	0.10	47.68
400.0	0.24	60.06	-3,272.0	1.3	0.7	1.2	0.18	-0.09	32.28
500.0	0.72	49.13	-3,172.0	1.8	1.4	1.7	0.49	0.48	-10.93
600.0	0.36	23.95	-3,072.0	2.5	2.0	2.3	0.42	-0.36	-25.18
700.0	0.41	27.15	-2,972.0	3.1	2.3	2.8	0.05	0.05	3.20
800.0	0.08	28.54	-2,872.0	3.5	2.4	3.2	0.33	-0.33	1.39
900.0	0.42	105.54	-2,772.0	3.5	2.8	3.1	0.41	0.34	77.00

DDC

Survey Report

Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	TVD Reference:	Mean Sea Level
Site:	Sec 15, T20S, R34E	MD Reference:	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.30	103.36	-2,672.0	3.3	3.4	2.9	0.12	-0.12	-2.18
1,100.0	0.77	102.81	-2,572.0	3.1	4.4	2.6	0.47	0.47	-0.55
1,200.0	0.38	86.25	-2,472.0	3.0	5.3	2.3	0.42	-0.39	-16.56
1,300.0	0.19	123.16	-2,372.0	2.9	5.8	2.2	0.26	-0.19	36.91
1,400.0	0.69	132.25	-2,272.0	2.4	6.4	1.7	0.50	0.50	9.09
1,500.0	0.32	197.20	-2,172.0	1.7	6.8	0.9	0.63	-0.37	64.95
1,600.0	0.42	193.28	-2,072.0	1.1	6.6	0.3	0.10	0.10	-3.92
1,700.0	0.89	185.77	-1,972.0	0.0	6.4	-0.8	0.48	0.47	-7.51
1,800.0	0.91	119.61	-1,872.1	-1.2	7.0	-2.0	0.98	0.02	-66.16
1,900.0	0.87	112.81	-1,772.1	-1.9	8.4	-2.8	0.11	-0.04	-6.80
2,000.0	0.88	80.76	-1,672.1	-2.0	9.9	-3.2	0.48	0.01	-32.05
2,100.0	0.84	76.73	-1,572.1	-1.7	11.4	-3.1	0.07	-0.04	-4.03
2,200.0	1.33	67.44	-1,472.1	-1.1	13.1	-2.7	0.52	0.49	-9.29
2,300.0	2.08	77.35	-1,372.2	-0.3	16.0	-2.2	0.80	0.75	9.91
2,400.0	1.77	81.68	-1,272.2	0.3	19.3	-1.9	0.34	-0.31	4.33
2,500.0	1.37	85.57	-1,172.2	0.7	22.0	-1.9	0.41	-0.40	3.89
2,600.0	1.73	55.33	-1,072.3	1.6	24.4	-1.3	0.88	0.36	-30.24
2,700.0	2.28	60.63	-972.3	3.4	27.4	0.2	0.58	0.55	5.30
2,800.0	3.15	55.20	-872.5	6.0	31.4	2.3	0.91	0.87	-5.43
2,900.0	4.37	57.80	-772.7	9.6	36.9	5.2	1.23	1.22	2.60
3,000.0	4.28	58.13	-673.0	13.6	43.3	8.4	0.09	-0.09	0.33
3,100.0	3.47	54.97	-573.2	17.3	48.9	11.4	0.84	-0.81	-3.16
3,200.0	6.06	47.91	-473.5	22.6	55.3	15.9	2.65	2.59	-7.06
3,300.0	4.68	58.69	-374.0	28.2	62.7	20.7	1.70	-1.38	10.78
3,400.0	4.89	51.81	-274.3	33.0	69.6	24.6	0.61	0.21	-6.88
3,500.0	4.16	55.94	-174.6	37.6	75.9	28.5	0.80	-0.73	4.13
3,600.0	4.02	56.52	-74.9	41.6	81.8	31.7	0.15	-0.14	0.58
3,700.0	4.05	43.33	24.9	46.1	87.2	35.6	0.93	0.03	-13.19
3,800.0	4.53	37.33	124.6	51.8	92.0	40.7	0.66	0.48	-6.00
3,900.0	5.85	32.15	224.2	59.3	97.1	47.5	1.40	1.32	-5.18
4,000.0	6.44	26.33	323.6	68.6	102.3	56.2	0.86	0.59	-5.82
4,100.0	6.98	19.99	422.9	79.4	106.9	66.3	0.92	0.54	-6.34
4,200.0	7.11	12.34	522.2	91.1	110.3	77.6	0.95	0.13	-7.65
4,300.0	7.73	11.89	621.3	103.7	113.0	89.8	0.62	0.62	-0.45
4,400.0	5.86	12.61	720.6	115.3	115.5	101.0	1.87	-1.87	0.72
4,500.0	6.99	3.49	820.0	126.4	117.0	111.8	1.52	1.13	-9.12
4,600.0	8.14	350.11	919.1	139.4	116.1	124.9	2.10	1.15	-13.38
4,700.0	9.11	349.11	1,018.0	154.2	113.4	139.8	0.98	0.97	-1.00
4,800.0	10.03	348.03	1,116.6	170.4	110.1	156.4	0.94	0.92	-1.08
4,900.0	12.02	356.99	1,214.8	189.4	107.8	175.5	2.62	1.99	8.96
5,000.0	12.60	356.10	1,312.5	210.7	106.5	196.7	0.61	0.58	-0.89
5,100.0	13.81	355.41	1,409.8	233.4	104.8	219.6	1.22	1.21	-0.69
5,200.0	13.75	353.00	1,506.9	257.1	102.4	243.4	0.58	-0.06	-2.41

Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	TVD Reference:	Mean Sea Level
Site:	Sec 15, T20S, R34E	MD Reference:	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	14.44	1.29	1,603.9	281.4	101.2	267.6	2.13	0.69	8.29
5,400.0	15.10	3.45	1,700.6	306.9	102.3	292.8	0.86	0.66	2.16
5,500.0	13.97	7.92	1,797.4	331.8	104.7	317.3	1.59	-1.13	4.47
5,600.0	12.02	6.22	1,894.9	354.1	107.5	339.1	1.99	-1.95	-1.70
5,700.0	10.07	4.42	1,993.0	373.2	109.3	357.8	1.98	-1.95	-1.80
5,766.0	9.15	6.16	2,058.1	384.2	110.3	368.6	1.46	-1.39	2.64
5,800.0	8.70	5.36	2,091.7	389.4	110.8	373.8	1.37	-1.32	-2.35
5,900.0	7.73	6.03	2,190.6	403.6	112.3	387.7	0.97	-0.97	0.67
6,000.0	6.49	7.91	2,289.9	415.9	113.7	399.7	1.26	-1.24	1.88
6,100.0	5.69	10.92	2,389.3	426.4	115.5	409.9	0.86	-0.80	3.01
6,200.0	4.97	12.02	2,488.9	435.5	117.3	418.8	0.73	-0.72	1.10
6,300.0	4.10	14.21	2,588.6	443.2	119.1	426.2	0.89	-0.87	2.19
6,400.0	3.44	14.39	2,688.3	449.6	120.7	432.3	0.66	-0.66	0.18
6,500.0	2.60	11.08	2,788.2	454.7	121.9	437.3	0.86	-0.84	-3.31
6,600.0	1.91	2.31	2,888.1	458.6	122.4	441.1	0.77	-0.69	-8.77
6,700.0	1.76	6.35	2,988.1	461.8	122.6	444.3	0.20	-0.15	4.04
6,800.0	1.15	23.52	3,088.0	464.2	123.2	446.6	0.74	-0.61	17.17
6,900.0	1.05	32.35	3,188.0	465.9	124.1	448.2	0.20	-0.10	8.83
7,000.0	0.87	43.03	3,288.0	467.2	125.1	449.4	0.25	-0.18	10.68
7,100.0	0.60	70.30	3,388.0	468.0	126.1	450.0	0.43	-0.27	27.27
7,200.0	0.60	91.45	3,488.0	468.1	127.1	450.0	0.22	0.00	21.15
7,300.0	0.38	44.36	3,588.0	468.4	127.9	450.2	0.44	-0.22	-47.09
7,400.0	0.33	45.79	3,688.0	468.8	128.3	450.6	0.05	-0.05	1.43
7,500.0	0.65	88.07	3,788.0	469.0	129.1	450.7	0.46	0.32	42.28
7,600.0	0.50	93.73	3,888.0	469.0	130.1	450.6	0.16	-0.15	5.66
7,700.0	0.05	101.17	3,988.0	469.0	130.6	450.5	0.45	-0.45	7.44
7,800.0	0.47	105.00	4,088.0	468.9	131.0	450.3	0.42	0.42	3.83
7,900.0	0.65	123.81	4,188.0	468.4	131.9	449.8	0.26	0.18	18.81
8,000.0	0.76	142.79	4,288.0	467.6	132.7	448.8	0.26	0.11	18.98
8,100.0	0.83	136.52	4,388.0	466.5	133.6	447.7	0.11	0.07	-6.27
8,200.0	0.69	157.89	4,487.9	465.5	134.4	446.5	0.31	-0.14	21.37
8,300.0	0.39	166.24	4,587.9	464.6	134.7	445.6	0.31	-0.30	8.35
8,400.0	0.63	115.43	4,687.9	464.0	135.3	445.0	0.49	0.24	-50.81
8,500.0	0.56	49.07	4,787.9	464.1	136.1	445.0	0.65	-0.07	-66.36
8,600.0	0.43	43.79	4,887.9	464.7	136.8	445.5	0.14	-0.13	-5.28
8,700.0	0.50	31.69	4,987.9	465.3	137.2	446.1	0.12	0.07	-12.10
8,800.0	0.49	53.72	5,087.9	465.9	137.8	446.6	0.19	-0.01	22.03
8,900.0	0.73	92.41	5,187.9	466.2	138.8	446.7	0.46	0.24	38.69
TIE IN @ 8956' MD / 8916' TVD									
8,956.0	0.83	107.87	5,243.9	466.0	139.5	446.5	0.41	0.18	27.61
9,004.0	1.00	113.40	5,291.9	465.8	140.3	446.1	0.40	0.35	11.52
9,098.0	0.20	197.20	5,385.9	465.3	141.0	445.6	1.06	-0.85	89.15
9,192.0	0.70	247.30	5,479.9	464.9	140.4	445.3	0.63	0.53	53.30

Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	TVD Reference:	Mean Sea Level
Site:	Sec 15, T20S, R34E	MD Reference:	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,287.0	0.40	208.80	5,574.9	464.4	139.7	444.8	0.48	-0.32	-40.53
9,382.0	0.80	151.00	5,669.9	463.5	139.8	444.0	0.71	0.42	-60.84
9,476.0	0.80	139.40	5,763.9	462.4	140.6	442.8	0.17	0.00	-12.34
9,570.0	0.30	162.30	5,857.9	461.7	141.1	442.0	0.57	-0.53	24.36
9,664.0	0.60	167.20	5,951.9	461.0	141.3	441.3	0.32	0.32	5.21
9,759.0	0.60	198.10	6,046.9	460.0	141.2	440.3	0.34	0.00	32.53
9,853.0	0.60	193.90	6,140.9	459.1	141.0	439.4	0.05	0.00	-4.47
9,947.0	0.70	166.50	6,234.9	458.1	141.0	438.4	0.34	0.11	-29.15
10,042.0	1.10	161.90	6,329.8	456.6	141.4	436.9	0.43	0.42	-4.84
10,136.0	1.50	167.00	6,423.8	454.6	142.0	434.8	0.44	0.43	5.43
10,231.0	0.90	173.00	6,518.8	452.6	142.3	432.8	0.64	-0.63	6.32
10,325.0	0.70	136.00	6,612.8	451.5	142.8	431.7	0.58	-0.21	-39.36
10,388.0	0.50	126.90	6,675.8	451.0	143.3	431.2	0.35	-0.32	-14.44
10,419.0	2.90	282.70	6,706.8	451.1	142.6	431.3	10.85	7.74	502.58
10,450.0	7.10	289.90	6,737.7	451.9	140.1	432.4	13.67	13.55	23.23
10,482.0	10.90	298.00	6,769.3	454.0	135.5	435.1	12.49	11.88	25.31
10,513.0	14.60	293.70	6,799.5	457.0	129.4	438.7	12.31	11.94	-13.87
10,544.0	17.90	294.10	6,829.2	460.5	121.4	443.1	10.65	10.65	1.29
10,576.0	20.80	295.80	6,859.4	465.0	111.8	448.7	9.23	9.06	5.31
10,607.0	23.50	298.00	6,888.1	470.3	101.4	455.2	9.11	8.71	7.10
10,638.0	26.60	295.80	6,916.2	476.2	89.7	462.4	10.44	10.00	-7.10
10,670.0	29.90	300.00	6,944.4	483.3	76.4	471.1	12.03	10.31	13.13
10,701.0	32.10	303.90	6,971.0	491.8	62.8	481.0	9.61	7.10	12.58
10,733.0	35.20	306.20	6,997.6	502.0	48.3	492.9	10.47	9.69	7.19
10,764.0	37.50	311.00	7,022.6	513.4	34.0	505.9	11.80	7.42	15.48
10,795.0	40.50	315.20	7,046.7	526.8	19.8	520.8	12.89	9.68	13.55
10,827.0	43.10	319.20	7,070.5	542.4	5.3	538.1	11.63	8.13	12.50
CROSSED HARD LINE @ 10848' MD / 10758' TVD									
10,847.9	44.98	321.60	7,085.6	553.6	-4.0	550.3	12.01	8.98	11.47
10,858.0	45.90	322.70	7,092.7	559.3	-8.4	556.4	12.01	9.15	10.92
10,889.0	47.40	325.50	7,113.9	577.6	-21.6	576.1	8.16	4.84	9.03
10,921.0	49.50	329.10	7,135.2	597.7	-34.5	597.6	10.67	6.56	11.25
10,952.0	52.20	332.40	7,154.7	618.7	-46.2	619.9	12.00	8.71	10.65
10,984.0	55.00	336.50	7,173.7	641.9	-57.3	644.2	13.52	8.75	12.81
11,015.0	57.30	340.10	7,191.0	665.8	-66.8	669.1	12.17	7.42	11.61
11,047.0	58.80	343.00	7,207.9	691.6	-75.4	695.7	9.01	4.69	9.06
11,079.0	62.10	346.00	7,223.7	718.4	-82.8	723.2	13.15	10.31	9.38
11,110.0	65.50	346.50	7,237.4	745.4	-89.5	750.8	11.06	10.97	1.61
11,141.0	69.20	347.40	7,249.3	773.3	-95.9	779.2	12.23	11.94	2.90
11,173.0	71.90	349.30	7,260.0	802.8	-102.0	809.3	10.13	8.44	5.94
11,204.0	74.50	350.70	7,269.0	832.1	-107.1	838.9	9.44	8.39	4.52
11,235.0	77.60	351.00	7,276.4	861.8	-111.9	868.9	10.04	10.00	0.97
11,267.0	79.90	352.30	7,282.7	892.8	-116.5	900.3	8.22	7.19	4.06
11,298.0	81.90	352.60	7,287.6	923.2	-120.5	930.9	6.52	6.45	0.97

Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	TVD Reference:	Mean Sea Level
Site:	Sec 15, T20S, R34E	MD Reference:	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,330.0	84.60	351.90	7,291.3	954.6	-124.8	962.7	8.71	8.44	-2.19
11,425.0	90.30	354.60	7,295.6	1,048.8	-135.9	1,057.5	6.64	6.00	2.84
11,489.0	91.40	354.00	7,294.6	1,112.5	-142.3	1,121.5	1.96	1.72	-0.94
11,583.0	91.40	353.50	7,292.3	1,205.9	-152.5	1,215.5	0.53	0.00	-0.53
11,678.0	91.10	354.20	7,290.2	1,300.4	-162.7	1,310.5	0.80	-0.32	0.74
11,772.0	89.80	354.70	7,289.5	1,393.9	-171.8	1,404.4	1.48	-1.38	0.53
11,867.0	88.60	354.20	7,290.8	1,488.5	-181.0	1,499.4	1.37	-1.26	-0.53
11,962.0	89.40	353.90	7,292.5	1,582.9	-190.8	1,594.4	0.90	0.84	-0.32
12,057.0	90.20	353.30	7,292.8	1,677.3	-201.4	1,689.4	1.05	0.84	-0.63
12,152.0	90.90	353.00	7,291.9	1,771.7	-212.7	1,784.4	0.80	0.74	-0.32
12,246.0	89.80	353.30	7,291.3	1,865.0	-224.0	1,878.4	1.21	-1.17	0.32
12,341.0	90.30	352.80	7,291.2	1,959.3	-235.4	1,973.4	0.74	0.53	-0.53
12,436.0	91.00	352.60	7,290.2	2,053.5	-247.5	2,068.4	0.77	0.74	-0.21
12,530.0	91.70	352.30	7,288.0	2,146.7	-259.9	2,162.3	0.81	0.74	-0.32
12,625.0	91.10	352.80	7,285.6	2,240.8	-272.2	2,257.3	0.82	-0.63	0.53
12,720.0	90.40	352.60	7,284.4	2,335.1	-284.3	2,352.3	0.77	-0.74	-0.21
12,816.0	91.10	352.60	7,283.1	2,430.2	-296.6	2,448.3	0.73	0.73	0.00
12,911.0	91.70	352.10	7,280.8	2,524.4	-309.3	2,543.2	0.82	0.63	-0.53
12,974.0	91.70	352.50	7,278.9	2,586.8	-317.7	2,606.2	0.63	0.00	0.63
13,037.0	91.70	352.80	7,277.1	2,649.2	-325.8	2,669.2	0.48	0.00	0.48
13,069.0	91.70	352.60	7,276.1	2,681.0	-329.8	2,701.1	0.62	0.00	-0.63
13,100.0	91.30	353.10	7,275.3	2,711.7	-333.7	2,732.1	2.07	-1.29	1.61
13,132.0	90.70	353.30	7,274.8	2,743.5	-337.5	2,764.1	1.98	-1.88	0.63
13,163.0	90.80	353.00	7,274.3	2,774.3	-341.2	2,795.1	1.02	0.32	-0.97
13,195.0	90.30	353.70	7,274.0	2,806.0	-344.9	2,827.1	2.69	-1.56	2.19
13,258.0	89.70	353.50	7,274.0	2,868.6	-351.9	2,890.1	1.00	-0.95	-0.32
13,321.0	90.00	353.30	7,274.2	2,931.2	-359.1	2,953.1	0.57	0.48	-0.32
13,353.0	90.20	353.50	7,274.2	2,963.0	-362.8	2,985.1	0.88	0.63	0.63
13,384.0	90.50	353.30	7,274.0	2,993.8	-366.4	3,016.1	1.16	0.97	-0.65
13,447.0	90.80	353.30	7,273.2	3,056.4	-373.7	3,079.1	0.48	0.48	0.00
13,479.0	90.80	353.50	7,272.8	3,088.2	-377.4	3,111.1	0.62	0.00	0.63
13,511.0	91.10	353.50	7,272.3	3,119.9	-381.0	3,143.1	0.94	0.94	0.00
13,542.0	90.30	354.00	7,271.9	3,150.8	-384.4	3,174.1	3.04	-2.58	1.61
13,574.0	89.30	354.90	7,272.0	3,182.6	-387.5	3,206.1	4.20	-3.13	2.81
13,637.0	89.50	354.90	7,272.7	3,245.4	-393.1	3,269.1	0.32	0.32	0.00
13,732.0	90.60	354.70	7,272.6	3,340.0	-401.7	3,364.0	1.18	1.16	-0.21
13,827.0	91.50	355.80	7,270.8	3,434.6	-409.6	3,458.9	1.50	0.95	1.16
13,890.0	90.60	356.50	7,269.7	3,497.5	-413.8	3,521.9	1.81	-1.43	1.11
13,921.0	89.10	357.40	7,269.8	3,528.4	-415.4	3,552.8	5.64	-4.84	2.90
14,016.0	89.50	357.20	7,270.9	3,623.3	-419.9	3,647.6	0.47	0.42	-0.21
14,111.0	89.70	357.00	7,271.6	3,718.2	-424.7	3,742.3	0.30	0.21	-0.21
14,206.0	89.90	356.50	7,271.9	3,813.0	-430.1	3,837.2	0.57	0.21	-0.53
14,301.0	90.30	356.10	7,271.8	3,907.8	-436.2	3,932.0	0.60	0.42	-0.42

DDC
Survey Report

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Marathon Road 15 PA Fed #1H
Project:	Lea County, New Mexico	**TVD Reference:**	Mean Sea Level
Site:	Sec 15, T20S, R34E	**MD Reference:**	WELL @ 3672.0usft (Patterson #444)
Well:	Marathon Road 15 PA Fed #1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	*Minimum Curvature*
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	TVD Below System (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,395.0	90.80	356.00	7,270.9	4,001.6	-442.7	4,025.9	0.54	0.53	-0.11
14,490.0	91.40	355.40	7,269.0	4,096.3	-449.8	4,120.8	0.89	0.63	-0.63
14,522.0	91.50	355.40	7,268.2	4,128.2	-452.4	4,152.8	0.31	0.31	0.00
14,585.0	91.60	356.00	7,266.5	4,191.0	-457.1	4,215.7	0.97	0.16	0.95
14,680.0	87.90	356.70	7,266.9	4,285.8	-463.2	4,310.5	3.96	-3.89	0.74
14,774.0	88.00	356.30	7,270.3	4,379.6	-468.9	4,404.3	0.44	0.11	-0.43
14,869.0	90.50	354.90	7,271.5	4,474.3	-476.2	4,499.2	3.02	2.63	-1.47
14,901.0	90.70	355.30	7,271.2	4,506.1	-478.9	4,531.2	1.40	0.63	1.25
14,933.0	90.80	354.90	7,270.8	4,538.0	-481.7	4,563.2	1.29	0.31	-1.25
14,995.0	90.90	354.20	7,269.9	4,599.7	-487.5	4,625.2	1.14	0.16	-1.13
TD @ 15045 MD / 10941 TVD									
15,045.0	90.90	354.20	7,269.1	4,649.5	-492.6	4,675.2	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,956.0	5,243.9	466.0	139.5	TIE IN @ 8956' MD / 8916' TVD
10,847.9	7,085.6	553.6	-4.0	CROSSED HARD LINE @ 10848' MD / 10758' TVD
15,045.0	7,269.1	4,649.5	-492.6	TD @ 15045' MD / 10941' TVD

Checked By: _____ Approved By: _____ Date: _____

HOBBS OCD

MAR 2 4 2014

RECEIVED

Customer	Mewbourn	Creation Date	2/17/2014
Project	Lea County	Profile Type	
Field	Lea County	Your Ref	
Structure	Sec 15, T2C	Job Numbe	
Wellhead	Marathon I	Kelly Bushi	3672
Profile	Wellbore #	Print Date	########

MD (ft)	Incl. Deg.	Azim. Deg.	Sub-Sea (ft)	TVD (ft)	Local N Co (ft)	Local E Coc (ft)	Global N C (ft)	Global E Cc (ft)	Dogleg (°/100ft)	Vertical Section (ft)
0	0	0	-3672	0	0	0	570747.8	744377.7	0	0
100	0.29	50.23	-3572	100	0.162	0.195	570747.9	744377.9	0.29	0.14
200	0.23	340.1	-3472	199.999	0.513	0.321	570748.3	744378	0.303	0.47
300	0.33	27.78	-3372	299.998	0.956	0.387	570748.7	744378.1	0.244	0.9
400	0.24	60.06	-3272	399.996	1.315	0.702	570749.1	744378.4	0.181	1.22
500	0.72	49.13	-3172.01	499.993	1.831	1.359	570749.6	744379.1	0.486	1.66
600	0.36	23.95	-3072.01	599.988	2.529	1.962	570750.3	744379.7	0.423	2.28
700	0.41	27.15	-2972.01	699.986	3.135	2.252	570750.9	744379.9	0.054	2.85
800	0.08	28.54	-2872.02	799.985	3.514	2.449	570751.3	744380.1	0.33	3.2
900	0.42	105.54	-2772.02	899.984	3.478	2.835	570751.2	744380.5	0.409	3.12
1000	0.3	103.36	-2672.02	999.982	3.319	3.443	570751.1	744381.1	0.121	2.89
1100	0.77	102.81	-2572.02	1099.977	3.109	4.353	570750.9	744382	0.47	2.58
1200	0.38	86.25	-2472.03	1199.972	2.982	5.339	570750.8	744383	0.42	2.34
1300	0.19	123.16	-2372.03	1299.971	2.913	5.809	570750.7	744383.5	0.255	2.21
1400	0.69	132.25	-2272.03	1399.968	2.418	6.394	570750.2	744384.1	0.503	1.65
1500	0.32	197.2	-2172.04	1499.964	1.746	6.757	570749.5	744384.5	0.626	0.94
1600	0.42	193.28	-2072.04	1599.962	1.122	6.59	570748.9	744384.3	0.103	0.34
1700	0.89	185.77	-1972.05	1699.955	-0.007	6.428	570747.8	744384.1	0.477	-0.76
1800	0.91	119.61	-1872.06	1799.945	-1.172	7.04	570746.6	744384.7	0.983	-1.99
1900	0.87	112.81	-1772.07	1899.933	-1.859	8.43	570745.9	744386.1	0.113	-2.83
2000	0.88	80.76	-1672.08	1999.922	-2.03	9.888	570745.7	744387.6	0.483	-3.17
2100	0.84	76.73	-1572.09	2099.911	-1.738	11.359	570746	744389.1	0.072	-3.06
2200	1.33	67.44	-1472.11	2199.893	-1.125	13.145	570746.6	744390.8	0.519	-2.66
2300	2.08	77.35	-1372.15	2299.848	-0.282	15.987	570747.5	744393.7	0.803	-2.15

2400	1.77	81.68	-1272.21	2399.792	0.339	19.286	570748.1	744397	0.342	-1.92
2500	1.37	85.57	-1172.25	2499.754	0.655	22.006	570748.4	744399.7	0.414	-1.92
2600	1.73	55.33	-1072.28	2599.719	1.606	24.439	570749.4	744402.1	0.88	-1.27
2700	2.28	60.63	-972.343	2699.657	3.44	27.414	570751.2	744405.1	0.58	0.21
2800	3.15	55.2	-872.456	2799.544	5.984	31.404	570753.8	744409.1	0.906	2.27
2900	4.37	57.8	-772.673	2899.327	9.582	36.884	570757.4	744414.6	1.232	5.2
3000	4.28	58.13	-672.958	2999.042	13.582	43.277	570761.4	744421	0.093	8.42
3100	3.47	54.97	-573.187	3098.813	17.29	48.924	570765.1	744426.6	0.837	11.45
3200	6.06	47.91	-473.54	3198.46	22.566	55.32	570770.3	744433	2.651	15.94
3300	4.68	58.69	-373.979	3298.021	28.225	62.724	570776	744440.4	1.704	20.69
3400	4.89	51.81	-274.327	3397.673	32.98	69.559	570780.7	744447.3	0.611	24.61
3500	4.16	55.94	-174.639	3497.361	37.646	75.914	570785.4	744453.6	0.799	28.5
3600	4.02	56.52	-74.894	3597.106	41.611	81.842	570789.4	744459.5	0.146	31.75
3700	4.05	43.33	24.861	3696.861	46.114	87.189	570793.9	744464.9	0.927	35.59
3800	4.53	37.33	124.581	3796.581	51.823	92.007	570799.6	744469.7	0.657	40.7
3900	5.85	32.15	224.169	3896.169	59.278	97.114	570807	744474.8	1.399	47.51
4000	6.44	26.33	323.595	3995.595	68.619	102.314	570816.4	744480	0.857	56.18
4100	6.98	19.99	422.911	4094.911	79.356	106.878	570827.1	744484.6	0.916	66.3
4200	7.11	12.34	522.158	4194.158	91.112	110.278	570838.9	744488	0.947	77.58
4300	7.73	11.89	621.321	4293.321	103.739	112.986	570851.5	744490.7	0.623	89.8
4400	5.86	12.61	720.614	4392.614	115.303	115.487	570863.1	744493.2	1.872	101
4500	6.99	3.49	819.987	4491.987	126.359	116.972	570874.1	744494.7	1.519	111.8
4600	8.14	350.11	919.122	4591.122	139.408	116.126	570887.2	744493.8	2.096	124.86
4700	9.11	349.11	1017.99	4689.99	154.157	113.414	570901.9	744491.1	0.981	139.83
4800	10.03	348.03	1116.598	4788.598	170.45	110.113	570918.2	744487.8	0.937	156.39
4900	12.02	356.99	1214.754	4886.754	189.37	107.759	570937.1	744485.5	2.62	175.46
5000	12.6	356.1	1312.455	4984.455	210.651	106.471	570958.4	744484.2	0.61	196.74
5100	13.81	355.41	1409.809	5081.809	233.43	104.774	570981.2	744482.5	1.22	219.57
5200	13.75	353	1506.932	5178.932	257.123	102.37	571004.9	744480.1	0.577	243.38
5300	14.44	1.29	1603.93	5275.93	281.387	101.202	571029.2	744478.9	2.131	267.61
5400	15.1	3.45	1700.626	5372.626	306.854	102.267	571054.6	744480	0.859	292.78
5500	13.97	7.92	1797.427	5469.427	331.813	104.714	571079.6	744482.4	1.592	317.28
5600	12.02	6.22	1894.862	5566.862	354.122	107.506	571101.9	744485.2	1.987	339.11
5700	10.07	4.42	1993.005	5665.005	373.192	109.308	571121	744487	1.98	357.84

5766	9.15	6.16	2058.078	5730.078	384.162	110.316	571131.9	744488	1.462	368.61
5800	8.7	5.36	2091.667	5763.667	389.41	110.846	571137.2	744488.5	1.373	373.76
5900	7.73	6.03	2190.639	5862.639	403.629	112.259	571151.4	744490	0.975	387.72
6000	6.49	7.91	2289.869	5961.869	415.915	113.743	571163.7	744491.4	1.261	399.75
6100	5.69	10.92	2389.304	6061.304	426.38	115.46	571174.1	744493.2	0.861	409.94
6200	4.97	12.02	2488.871	6160.871	435.485	117.301	571183.3	744495	0.727	418.77
6300	4.1	14.21	2588.557	6260.557	443.187	119.081	571191	744496.8	0.887	426.21
6400	3.44	14.39	2688.34	6360.34	449.559	120.704	571197.3	744498.4	0.66	432.35
6500	2.6	11.08	2788.2	6460.2	454.691	121.886	571202.5	744499.6	0.858	437.3
6600	1.91	2.31	2888.122	6560.122	458.582	122.389	571206.4	744500.1	0.77	441.11
6700	1.76	6.35	2988.071	6660.071	461.773	122.626	571209.5	744500.3	0.198	444.25
6800	1.15	23.52	3088.039	6760.039	464.219	123.196	571212	744500.9	0.743	446.61
6900	1.05	32.35	3188.02	6860.02	465.914	124.087	571213.7	744501.8	0.197	448.19
7000	0.87	43.03	3288.006	6960.006	467.243	125.095	571215	744502.8	0.253	449.39
7100	0.6	70.3	3387.998	7059.998	467.974	126.106	571215.7	744503.8	0.435	450
7200	0.6	91.45	3487.993	7159.993	468.137	127.123	571215.9	744504.8	0.22	450.05
7300	0.38	44.36	3587.99	7259.99	468.361	127.878	571216.1	744505.6	0.44	450.18
7400	0.33	45.79	3687.988	7359.988	468.799	128.316	571216.6	744506	0.051	450.56
7500	0.65	88.07	3787.984	7459.984	469.019	129.09	571216.8	744506.8	0.463	450.69
7600	0.5	93.73	3887.979	7559.979	469.01	130.092	571216.8	744507.8	0.16	450.56
7700	0.05	101.17	3987.978	7659.978	468.973	130.57	571216.7	744508.3	0.45	450.47
7800	0.47	105	4087.977	7759.977	468.858	131.009	571216.6	744508.7	0.42	450.31
7900	0.65	123.81	4187.972	7859.972	468.437	131.877	571216.2	744509.6	0.255	449.79
8000	0.76	142.79	4287.964	7959.964	467.593	132.749	571215.4	744510.4	0.257	448.85
8100	0.83	136.52	4387.955	8059.955	466.539	133.648	571214.3	744511.3	0.112	447.69
8200	0.69	157.89	4487.946	8159.946	465.456	134.373	571213.2	744512.1	0.314	446.53
8300	0.39	166.24	4587.942	8259.942	464.567	134.681	571212.3	744512.4	0.309	445.62
8400	0.63	115.43	4687.938	8359.938	464	135.258	571211.8	744513	0.488	444.99
8500	0.56	49.07	4787.934	8459.934	464.085	136.124	571211.9	744513.8	0.654	444.97
8600	0.43	43.79	4887.93	8559.93	464.676	136.753	571212.4	744514.4	0.138	445.48
8700	0.5	31.69	4987.927	8659.927	465.318	137.242	571213.1	744514.9	0.12	446.06
8800	0.49	53.72	5087.923	8759.923	465.942	137.816	571213.7	744515.5	0.189	446.61
8900	0.73	92.41	5187.918	8859.918	466.168	138.797	571213.9	744516.5	0.463	446.72
8956	0.83	107.87	5243.913	8915.913	466.029	139.539	571213.8	744517.2	0.414	446.5

9004	1	113.4	5291.906	8963.906	465.756	140.255	571213.5	744517.9	0.399	446.14
9098	0.2	197.2	5385.901	9057.901	465.273	140.959	571213	744518.7	1.062	445.58
9192	0.7	247.3	5479.898	9151.898	464.895	140.381	571212.7	744518.1	0.63	445.27
9287	0.4	208.8	5574.894	9246.894	464.38	139.686	571212.1	744517.4	0.484	444.84
9382	0.8	151	5669.889	9341.889	463.51	139.847	571211.3	744517.5	0.713	443.96
9476	0.8	139.4	5763.88	9435.88	462.438	140.593	571210.2	744518.3	0.172	442.81
9570	0.3	162.3	5857.876	9529.876	461.705	141.094	571209.5	744518.8	0.571	442.02
9664	0.6	167.2	5951.873	9623.873	460.991	141.278	571208.8	744519	0.321	441.29
9759	0.6	198.1	6046.868	9718.868	460.033	141.234	571207.8	744518.9	0.336	440.35
9853	0.6	193.9	6140.863	9812.863	459.087	140.963	571206.9	744518.7	0.047	439.44
9947	0.7	166.5	6234.857	9906.857	458.051	140.979	571205.8	744518.7	0.343	438.41
10042	1.1	161.9	6329.845	10001.85	456.62	141.397	571204.4	744519.1	0.428	436.94
10136	1.5	167	6423.821	10095.82	454.564	141.955	571202.3	744519.6	0.443	434.83
10231	0.9	173	6518.799	10190.8	452.611	142.325	571200.4	744520	0.644	432.85
10325	0.7	136	6612.791	10284.79	451.466	142.814	571199.2	744520.5	0.577	431.65
10388	0.5	126.9	6675.787	10347.79	451.024	143.301	571198.8	744521	0.351	431.16
10419	2.9	282.7	6706.776	10378.78	451.115	142.644	571198.9	744520.3	10.846	431.32
10450	7.1	289.9	6737.651	10409.65	451.94	140.077	571199.7	744517.8	13.672	432.44
10482	10.9	298	6769.253	10441.25	454.034	135.544	571201.8	744513.2	12.489	435.05
10513	14.6	293.7	6799.484	10471.48	456.982	129.376	571204.8	744507.1	12.314	438.7
10544	17.9	294.1	6829.241	10501.24	460.499	121.448	571208.3	744499.1	10.651	443.12
10576	20.8	295.8	6859.43	10531.43	464.98	111.841	571212.7	744489.5	9.231	448.7
10607	23.5	298	6888.141	10560.14	470.279	101.426	571218	744479.1	9.11	455.18
10638	26.6	295.8	6916.222	10588.22	476.203	89.718	571224	744467.4	10.44	462.43
10670	29.9	300	6944.409	10616.41	483.311	76.355	571231.1	744454	12.034	471.06
10701	32.1	303.9	6970.983	10642.98	491.77	62.824	571239.5	744440.5	9.607	481.04
10733	35.2	306.2	6997.618	10669.62	501.962	48.32	571249.7	744426	10.473	492.86
10764	37.5	311	7022.59	10694.59	513.434	33.984	571261.2	744411.7	11.797	505.93
10795	40.5	315.2	7046.683	10718.68	526.772	19.764	571274.5	744397.5	12.893	520.84
10827	43.1	319.2	7070.54	10742.54	542.427	5.294	571290.2	744383	11.634	538.08
10858	45.9	322.7	7092.652	10764.65	559.304	-8.377	571307.1	744369.3	12.006	556.44
10889	47.4	325.5	7113.934	10785.93	577.565	-21.586	571325.3	744356.1	8.157	576.12
10921	49.5	329.1	7135.161	10807.16	597.716	-34.509	571345.5	744343.2	10.673	597.65
10952	52.2	332.4	7154.735	10826.74	618.691	-46.24	571366.5	744331.5	11.998	619.85

10984	55	336.5	7173.727	10845.73	641.925	-57.329	571389.7	744320.4	13.522	644.22
11015	57.3	340.1	7190.998	10863	665.842	-66.835	571413.6	744310.9	12.167	669.09
11047	58.8	343	7207.934	10879.93	691.596	-75.421	571439.4	744302.3	9.005	695.67
11079	62.1	346	7223.716	10895.72	718.416	-82.846	571466.2	744294.8	13.146	723.17
11110	65.5	346.5	7237.401	10909.4	745.43	-89.455	571493.2	744288.2	11.063	750.78
11141	69.2	347.4	7249.337	10921.34	773.296	-95.911	571521.1	744281.8	12.232	779.21
11173	71.9	349.3	7259.992	10931.99	802.844	-101.999	571550.6	744275.7	10.126	809.26
11204	74.5	350.7	7268.952	10940.95	832.067	-107.149	571579.8	744270.5	9.436	838.89
11235	77.6	351	7276.424	10948.42	861.767	-111.932	571609.5	744265.8	10.044	868.94
11267	79.9	352.3	7282.667	10954.67	892.817	-116.488	571640.6	744261.2	8.218	900.31
11298	81.9	352.6	7287.57	10959.57	923.159	-120.51	571670.9	744257.2	6.522	930.92
11330	84.6	351.9	7291.331	10963.33	954.644	-124.795	571702.4	744252.9	8.713	962.69
11425	90.3	354.6	7295.556	10967.56	1048.845	-135.939	571796.6	744241.8	6.637	1057.55
11489	91.4	354	7294.607	10966.61	1112.521	-142.295	571860.3	744235.4	1.958	1121.53
11583	91.4	353.5	7292.31	10964.31	1205.934	-152.525	571953.7	744225.2	0.532	1215.5
11678	91.1	354.2	7290.238	10962.24	1300.364	-162.7	572048.1	744215	0.801	1310.47
11772	89.8	354.7	7289.5	10961.5	1393.918	-171.791	572141.7	744205.9	1.482	1404.44
11867	88.6	354.2	7290.826	10962.83	1488.461	-180.978	572236.2	744196.7	1.368	1499.41
11962	89.4	353.9	7292.484	10964.48	1582.934	-190.824	572330.7	744186.9	0.899	1594.39
12057	90.2	353.3	7292.816	10964.82	1677.34	-201.413	572425.1	744176.3	1.053	1689.39
12152	90.9	353	7291.904	10963.9	1771.657	-212.743	572519.4	744165	0.802	1784.38
12246	89.8	353.3	7291.33	10963.33	1864.983	-223.954	572612.8	744153.7	1.213	1878.38
12341	90.3	352.8	7291.247	10963.25	1959.284	-235.45	572707.1	744142.2	0.744	1973.38
12436	91	352.6	7290.169	10962.17	2053.508	-247.52	572801.3	744130.2	0.766	2068.36
12530	91.7	352.3	7287.954	10959.95	2146.666	-259.867	572894.4	744117.8	0.81	2162.33
12625	91.1	352.8	7285.633	10957.63	2240.835	-272.181	572988.6	744105.5	0.822	2257.29
12720	90.4	352.6	7284.39	10956.39	2335.057	-284.251	573082.8	744093.4	0.766	2352.28
12816	91.1	352.6	7283.133	10955.13	2430.248	-296.614	573178	744081.1	0.729	2448.26
12911	91.7	352.1	7280.812	10952.81	2524.374	-309.257	573272.1	744068.4	0.822	2543.22
12974	91.7	352.5	7278.943	10950.94	2586.778	-317.694	573334.5	744060	0.635	2606.18
13037	91.7	352.8	7277.074	10949.07	2649.233	-325.75	573397	744051.9	0.476	2669.15
13069	91.7	352.6	7276.125	10948.13	2680.96	-329.815	573428.7	744047.9	0.625	2701.14
13100	91.3	353.1	7275.313	10947.31	2711.708	-333.672	573459.5	744044	2.065	2732.12
13132	90.7	353.3	7274.755	10946.76	2743.478	-337.46	573491.2	744040.2	1.976	2764.12

13163	90.8	353	7274.349	10946.35	2774.254	-341.157	573522	744036.5	1.02	2795.12
13195	90.3	353.7	7274.042	10946.04	2806.037	-344.863	573553.8	744032.8	2.688	2827.11
13258	89.7	353.5	7274.042	10946.04	2868.644	-351.885	573616.4	744025.8	1.004	2890.11
13321	90	353.3	7274.207	10946.21	2931.226	-359.126	573679	744018.6	0.572	2953.11
13353	90.2	353.5	7274.151	10946.15	2963.014	-362.804	573710.8	744014.9	0.884	2985.11
13384	90.5	353.3	7273.962	10945.96	2993.808	-366.367	573741.6	744011.3	1.163	3016.11
13447	90.8	353.3	7273.247	10945.25	3056.373	-373.717	573804.1	744004	0.476	3079.11
13479	90.8	353.5	7272.8	10944.8	3088.158	-377.395	573835.9	744000.3	0.625	3111.1
13511	91.1	353.5	7272.27	10944.27	3119.948	-381.017	573867.7	743996.7	0.937	3143.1
13542	90.3	354	7271.891	10943.89	3150.761	-384.391	573898.5	743993.3	3.043	3174.1
13574	89.3	354.9	7272.003	10944	3182.61	-387.486	573930.4	743990.2	4.204	3206.09
13637	89.5	354.9	7272.662	10944.66	3245.357	-393.086	573993.1	743984.6	0.317	3269.06
13732	90.6	354.7	7272.579	10944.58	3339.965	-401.696	574087.7	743976	1.177	3364.02
13827	91.5	355.8	7270.838	10942.84	3434.62	-409.561	574182.4	743968.1	1.496	3458.95
13890	90.6	356.5	7269.684	10941.68	3497.466	-413.791	574245.2	743963.9	1.81	3521.86
13921	89.1	357.4	7269.765	10941.77	3528.421	-415.44	574276.2	743962.3	5.643	3552.79
14016	89.5	357.2	7270.926	10942.93	3623.308	-419.915	574371.1	743957.8	0.471	3647.55
14111	89.7	357	7271.589	10943.59	3718.184	-424.721	574466	743953	0.298	3742.34
14206	89.9	356.5	7271.921	10943.92	3813.031	-430.107	574560.8	743947.6	0.567	3837.16
14301	90.3	356.1	7271.755	10943.76	3907.832	-436.237	574655.6	743941.5	0.595	3932.03
14395	90.8	356	7270.852	10942.85	4001.604	-442.712	574749.4	743935	0.542	4025.92
14490	91.4	355.4	7269.029	10941.03	4096.319	-449.834	574844.1	743927.9	0.893	4120.81
14522	91.5	355.4	7268.219	10940.22	4128.205	-452.399	574876	743925.3	0.312	4152.78
14585	91.6	356	7266.515	10938.52	4191.005	-457.121	574938.8	743920.6	0.965	4215.7
14680	87.9	356.7	7266.929	10938.93	4285.794	-463.168	575033.6	743914.5	3.964	4310.55
14774	88	356.3	7270.292	10942.29	4379.558	-468.903	575127.3	743908.8	0.438	4404.34
14869	90.5	354.9	7271.535	10943.54	4474.26	-476.19	575222	743901.5	3.016	4499.24
14901	90.7	355.3	7271.2	10943.2	4506.142	-478.923	575253.9	743898.8	1.397	4531.23
14933	90.8	354.9	7270.781	10942.78	4538.022	-481.656	575285.8	743896	1.288	4563.21
14995	90.9	354.2	7269.862	10941.86	4599.734	-487.544	575347.5	743890.1	1.14	4625.18
15045	90.9	354.2	7269.076	10941.08	4649.472	-492.596	575397.2	743885.1	0	4675.17

Company Name: Mewbourne Oil Co
Marathon Road 15 PA Fed #1H
Lea County, New Mexico
Rig: Patterson #444
Created By: James Dawson
Date: 02/17/2014

Marathon Road, 15 PA Fed #1H
Lea County, New Mexico
Q131122 & WT-140069
Design #2

Mewbourne Oil Company

T G M Azimuths to Grid North
Magnetic North: 6.85°
Magnetic Field
Strength: 48563.8snT
Dip Angle: 60.44°
Date: 1/20/2014
Model: IGRF2010

DDC
The DIRECTIONAL DRILLING COMPANY

PROJECT DETAILS:	Lea County, New Mexico
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Marathon Road 15 PA Fed #1H
Ground Level: 3652.0

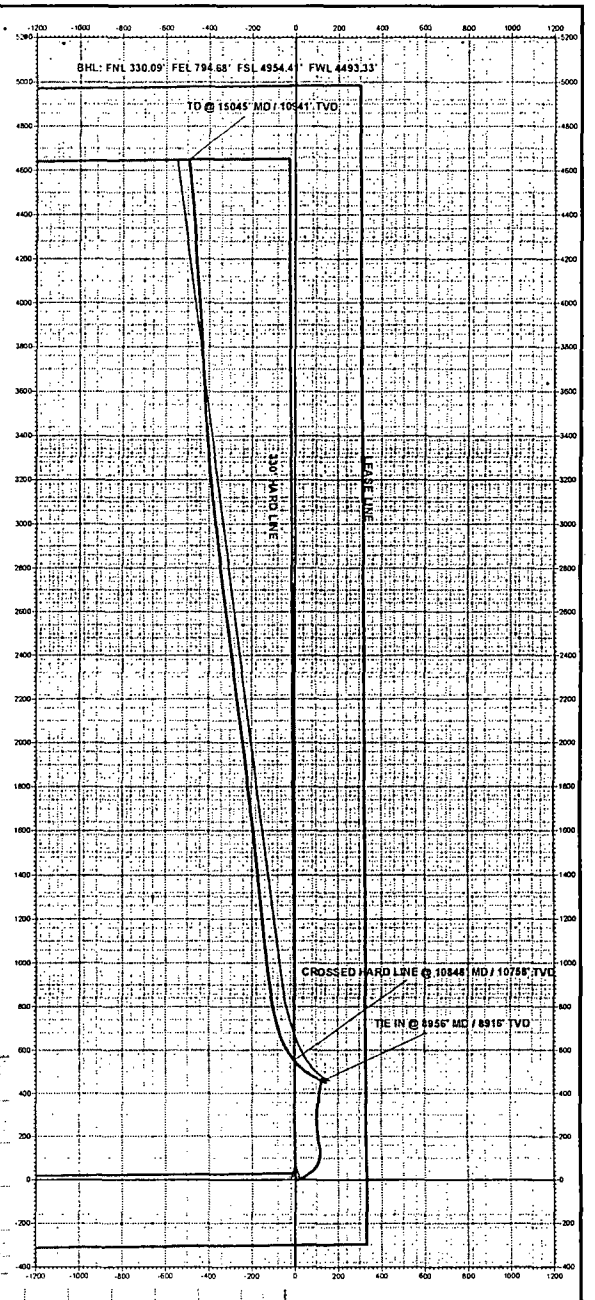
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	570747.77	744377.69	32° 33' 59.722 N	103° 32' 24.356 W

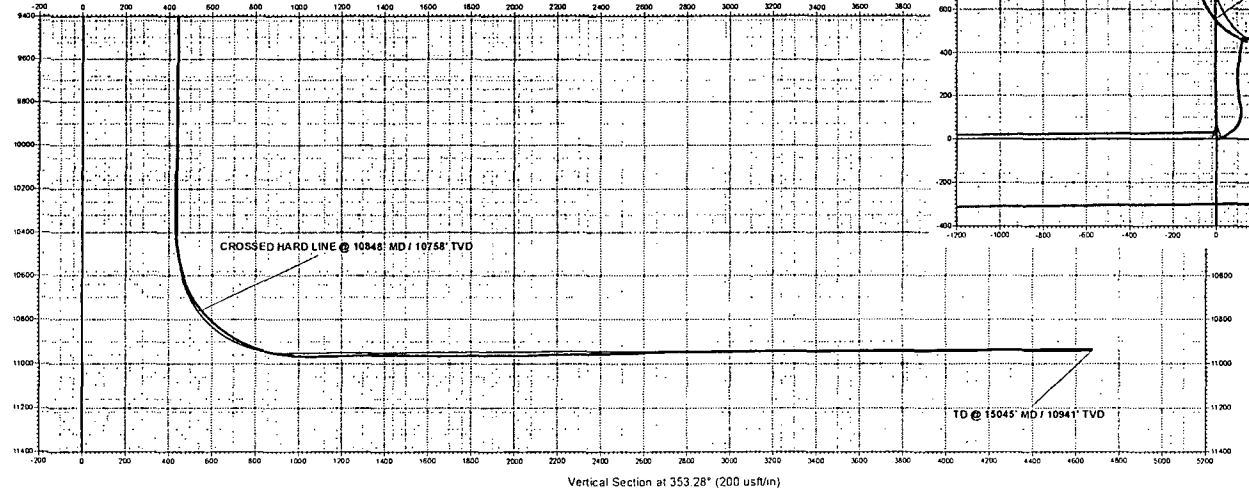
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Marathon Road 15 PA Fed #1H Dft - plan hits target center	10932.0	4647.3	-647.4	575395.05	743830.30	32° 34' 45.747 N	103° 32' 30.348 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
8956.0	0.83	107.87	8915.9	466.0	139.5	446.5	558.7	TIE IN @ 8956' MD / 8915' TVD
10847.9	44.98	321.60	10757.5	653.6	-4.0	650.3	750.9	CROSSED HARD LINE @ 10848' MD / 10758' TVD
15045.0	90.90	354.20	10941.1	4649.5	-492.8	4675.2	4897.5	TD @ 15045' MD / 10941' TVD





Vertical Section at 353.28° (200 usft/in)

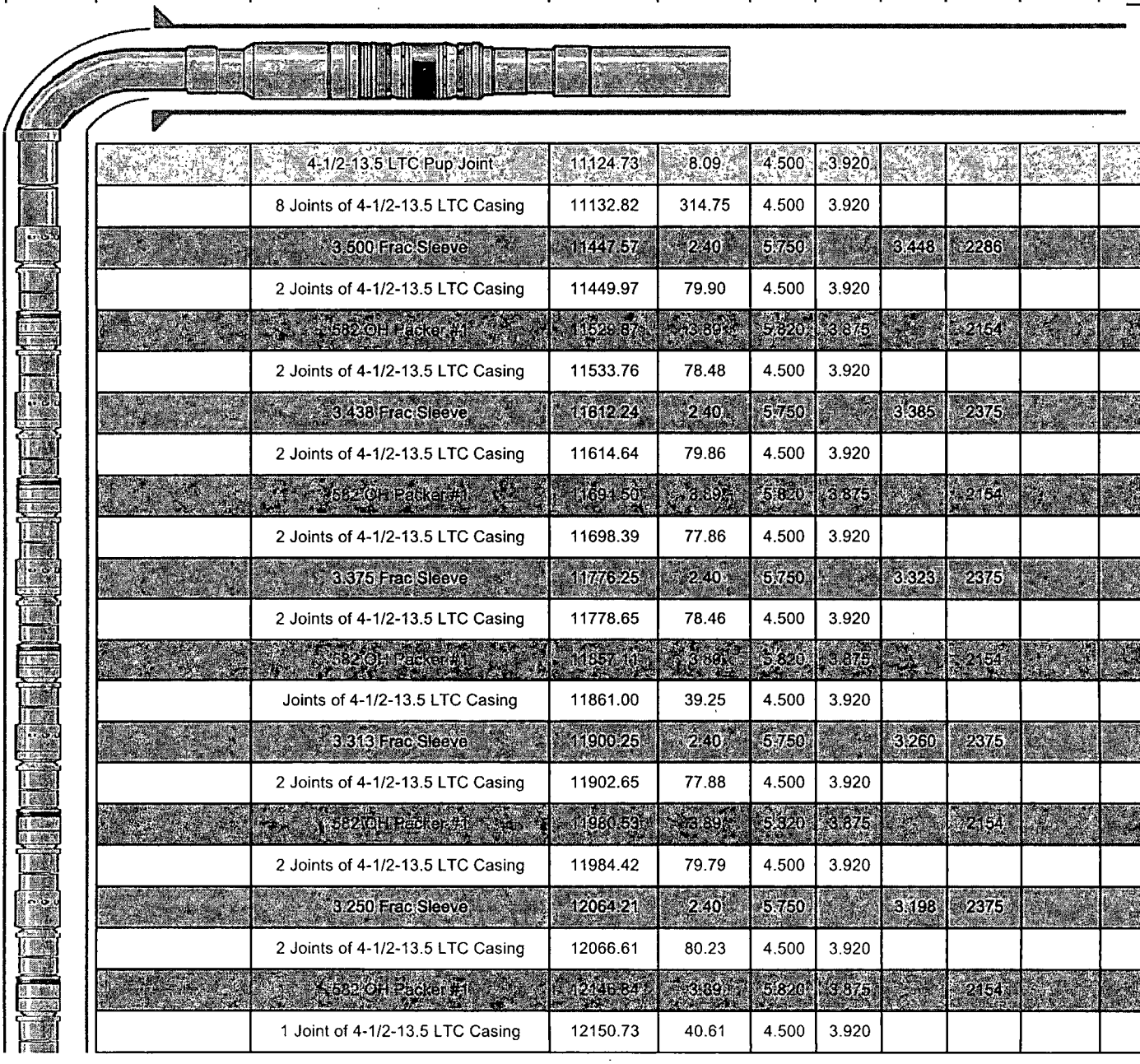
Operating Company	Mewbourne Oil Co.	**Company Rep**	Lynn Simmons		
Well Name & Number	Marathon Road 15 PA Fed #1H	**Field**			
Sales Ticket Number	6169922	**BOT Service Rep**	Joseph Haynes		
Date	2/17/2014	**District Location**	Odessa, TX		

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.184	6.151	LTC / 8RD	0.03715	11,385.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01492	3,901.84	12,410	10,680
Bott Liner										

TVD	10941.00	KOP	10400.00	Open Hole	6.125	Casing Vol. (bbl) 412.9
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)		Max Drill Out Size	0	

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ (BBL)
Liner Top 1		S-3 Liner Top Hanger w/ JR Sleeve	11115.19	9.54	5.875	3.875		1670		



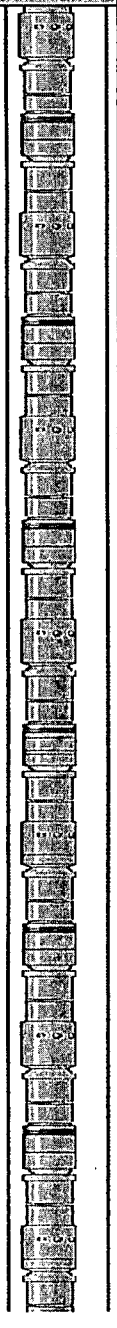
Zone Length									
	4-1/2 13.5 LTC Pup Joint	11124.73	8.09	4.500	3.920				
	8 Joints of 4-1/2-13.5 LTC Casing	11132.82	314.75	4.500	3.920				
	3.500 Frac Sleeve	11447.57	2.40	5.750		3.448	2286		
	2 Joints of 4-1/2-13.5 LTC Casing	11449.97	79.90	4.500	3.920				
	5.82 OH Packer #1	11529.87	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	11533.76	78.48	4.500	3.920				
	3.438 Frac Sleeve	11612.24	2.40	5.750		3.385	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	11614.64	79.86	4.500	3.920				
	5.82 OH Packer #1	11694.50	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	11698.39	77.86	4.500	3.920				
	3.375 Frac Sleeve	11776.25	2.40	5.750		3.323	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	11778.65	78.46	4.500	3.920				
	5.82 OH Packer #1	11857.11	3.89	5.820	3.875		2154		
	Joints of 4-1/2-13.5 LTC Casing	11861.00	39.25	4.500	3.920				
	3.313 Frac Sleeve	11900.25	2.40	5.750		3.260	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	11902.65	77.88	4.500	3.920				
	5.82 OH Packer #1	11980.53	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	11984.42	79.79	4.500	3.920				
	3.250 Frac Sleeve	12064.21	2.40	5.750		3.198	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12066.61	80.23	4.500	3.920				
	5.82 OH Packer #1	12146.84	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	12150.73	40.61	4.500	3.920				

Operating Company	Mewbourne Oil Co.	**Company Rep**	Lynn Simmons		
Well Name & Number	Marathon Road 15 PA Fed #1H	**Field**			
Sales Ticket Number	6169922	**BOT Service Rep**	Joseph Haynes		
Date	2/17/2014	**District Location**	Odessa, TX		

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.184	6.151	LTC / 8RD	0.03715	11,385.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01492	3,901.84	12,410	10,680
Bott Liner										

TVD	10941.00	KOP	10400.00	Open Hole	6.125	Casing Vol. (bbl)	412.9
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	0



Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ (BBL)
	3.188 Frac Sleeve	12191.34	2.40	5.750		3.135	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12193.74	77.21	4.500	3.920				
	5.82 OH Packer #1	12270.95	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	12274.84	79.35	4.500	3.920				
	3.125 Frac Sleeve	12354.19	2.40	5.750		3.073	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12356.59	76.21	4.500	3.920				
	5.82 OH Packer #1	12432.80	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	12436.69	40.52	4.500	3.920				
	3.063 Frac Sleeve	12477.21	2.40	5.750		3.010	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12479.61	77.51	4.500	3.920				
	5.82 OH Packer #1	12557.12	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	12561.01	78.82	4.500	3.920				
	3.000 Frac Sleeve	12639.83	2.40	5.750		2.948	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12642.23	79.42	4.500	3.920				
	5.82 OH Packer #1	12721.65	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	12725.54	79.07	4.500	3.920				
	2.938 Frac Sleeve	12804.61	2.40	5.750		2.885	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12807.01	78.50	4.500	3.920				
	5.82 OH Packer #1	12885.51	3.89	5.820	3.875		2154		
	Joints of 4-1/2-13.5 LTC Casing	12889.40	39.44	4.500	3.920				
	2.875 Frac Sleeve	12928.84	2.40	5.750		2.823	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	12931.24	79.27	4.500	3.920				
	5.82 OH Packer #1	13010.51	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	13014.40	79.29	4.500	3.920				
	2.813 Frac Sleeve	13093.69	2.40	5.750		2.760	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13096.09	80.47	4.500	3.920				

Operating Company	Mewbourne Oil Co.	**Company Rep**	Lynn Simmons		
Well Name & Number	Marathon Road 15 PA Fed #1H	**Field**			
Sales Ticket Number	6169922	**BOT Service Rep**	Joseph Haynes		
Date	2/17/2014	**District Location**	Odessa, TX		

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.184	6.151	LTC / 8RD	0.03715	11,385.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01492	3,901.84	12,410	10,680
Bott Liner										

TVD	10941.00	KOP	10400.00	Open Hole	6.125	Casing Vol. (bbl) 412.9
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)		Max Drill Out Size	0	

Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
	5.62 OH Packer #1	13176.56	3.89	5.820	3.875		2154		
	Joints of 4-1/2-13.5 LTC Casing	13180.45	39.44	4.500	3.920				
	2.750 Frac Sleeve	13219.89	2.40	5.750		2.698	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13222.29	81.69	4.500	3.920				
	5.62 OH Packer #1	13303.98	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	13307.87	80.23	4.500	3.920				
	2.688 Frac Sleeve	13388.10	2.40	5.750		2.635	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13390.50	80.69	4.500	3.920				
	5.62 OH Packer #1	13471.19	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	13475.08	38.74	4.500	3.920				
	2.625 Frac Sleeve	13513.82	2.40	5.750		2.573	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13516.22	80.27	4.500	3.920				
	5.62 OH Packer #1	13596.49	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	13600.38	79.17	4.500	3.920				
	2.563 Frac Sleeve	13679.55	2.40	5.750		2.510	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13681.95	80.81	4.500	3.920				
	5.62 OH Packer #1	13762.76	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	13766.65	39.14	4.500	3.920				
	2.500 Frac Sleeve	13805.79	2.40	5.750		2.448	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13808.19	78.87	4.500	3.920				
	5.62 OH Packer #1	13887.06	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	13890.95	78.50	4.500	3.920				
	2.438 Frac Sleeve	13969.45	2.40	5.750		2.386	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	13971.85	80.25	4.500	3.920				
	5.62 OH Packer #1	14052.10	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	14055.99	40.01	4.500	3.920				

Operating Company	Mewbourne Oil Co.	**Company Rep**	Lynn Simmons		
Well Name & Number	Marathon Road 15 PA Fed #1H	**Field**			
Sales Ticket Number	6169922	**BOT Service Rep**	Joseph Haynes		
Date	2/17/2014	**District Location**	Odessa, TX		

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.184	6.151	LTC / 8RD	0.03715	11,385.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01492	3,901.84	12,410	10,680
Bott Liner										

TVD	10941.00	KOP	10400.00	Open Hole	6.125	Casing Vol. (bbl) 412.9
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)		Max Drill Out Size	0	

Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
	2.375 Frac Sleeve	14096.00	2.40	5.750		2.323	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	14098.40	77.65	4.500	3.920				
	5.82 OH Packer #1	14176.05	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	14179.94	75.90	4.500	3.920				
	2.313 Frac Sleeve	14255.84	2.40	5.750		2.261	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	14258.24	79.62	4.500	3.920				
	5.82 OH Packer #1	14337.86	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	14341.75	79.10	4.500	3.920				
	2.250 Frac Sleeve	14420.85	2.40	5.750		2.198	2375		
	2 Joints of 4-1/2-13.5 LTC Casing	14423.25	79.36	4.500	3.920				
	5.82 OH Packer #1	14502.61	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	14506.50	40.41	4.500	3.920				
	2.188 Frac Sleeve	14546.91	2.40	5.750		2.136	2286		
	2 Joints of 4-1/2-13.5 LTC Casing	14549.31	78.04	4.500	3.920				
	5.82 OH Packer #1	14627.35	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	14631.24	78.17	4.500	3.920				
	2.125 Frac Sleeve	14709.41	2.40	5.750		2.073	2286		
	2 Joints of 4-1/2-13.5 LTC Casing	14711.81	79.33	4.500	3.920				
	5.82 OH Packer #1	14791.14	3.89	5.820	3.875		2154		
	1 Joint of 4-1/2-13.5 LTC Casing	14795.03	40.48	4.500	3.920				
	2.063 Frac Sleeve	14835.51	2.40	5.750		2.011	2286		
	2 Joints of 4-1/2-13.5 LTC Casing	14837.91	79.00	4.500	3.920				
	5.82 OH Packer #1	14916.91	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-13.5 LTC Casing	14920.80	79.20	4.500	3.920				
	4-1/2-13.5 LTC Pup Joint	15000.00	8.05	4.500	3.920				
	Alpha Sleeve	15008.05	3.73	5.625	3.813		6926		

Operating Company	Mewbourne Oil Co.	**Company Rep**	Lynn Simmons		
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Date	2/17/2014	**District Location**	Odessa, TX		

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.184	6.151	LTC / 8RD	0.03715	11,385.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01492	3,901.84	12,410	10,680
Bott Liner										

TVD	10941.00	KOP	10400.00	Open Hole	6.125	Casing Vol. (bbl)	412.9
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	0

Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ (BBL)
	WIV Tool	15011.78	2.97	5.000	1.000		1100		
	4-1/2-13.5 LTC Pup Joint	15014.75	8.06	4.500	3.920				
	DBL Valve Float Shoe	15022.81	2.27	5.000	4.062				
		15025.08							