OPERATOR MEWBOURNE OIL COMPANY 041-0116
WELL/LEASE WYATT DRAW 13 PA 001H
COUNTY EDDY

STATE OF NEW MEXICO
DEVIATION REPORT 15-40301

407	1.12
845	1.86
1,288	1.11
1,762	0.88

BY: Steve Moore

STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on 10/17/13, by Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:

AMBER ELIZABETH CARR
Notary Public, State of Texas
My Commission Expires
September 28, 2016

Company: Mewbourne Oil Co
Lease/Well: Wyatt Draw 13 PA/1H
Location: 24 T195 R25E
Rig Name: Patterson #41
State/County: New Mexico/Eddy
Latitude: 32.65, Longitude: -104.43
GRID North is 0.05 Degrees West of True North
VS-Azi: 0.00 Degrees

RKB : 16 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS
Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 10/4/2013 / 16:25

Vaughn Energy Services
Fort Worth ,TX
817- 741-3610
Surveyor: Jason Wilson
Wyatt Draw 13 PA 1H / API 30-015-40301

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.52	352.63	100.00	0.45	-0.06	0.45	0.45	352.63	0.52
200.00	0.58	344.81	199.99	1.39	-0.25	1.39	1.41	349.84	0.09
300.00	0.84	345.52	299.99	2.58	-0.56	2.58	2.64	347.69	0.26
400.00	0.95	333.62	399.97	4.03	-1.11	4.03	4.18	344.55	0.22
500.00	1.22	338.12	499.96	5.77	-1.88	5.77	6.07	341.93	0.29
600.00	1.10	329.00	599.94	7.58	-2.78	7.58	8.08	339.90	0.22
700.00	1.26	335.06	699.91	9.40	-3.73	9.40	10.12	338.35	0.20
800.00	1.07	330.06	799.89	11.20	-4.66	11.20	12.13	337.42	0.21
900.00	1.02	332.11	899.88	12.80	-5.54	12.80	13.95	336.59	0.06
1000.00	0.97	328.77	999.86	14.31	-6.40	14.31	15.68	335.91	0.08
1100.00	0.98	330.27	1099.85	15.78	-7.26	15.78	17.37	335.29	0.03
1200.00	0.94	345.31	1199.83	17.32	-7.90	17.32	19.04	335.49	0.25
1300.00	0.92	352.25	1299.82	18.91	-8.21	18.91	20.62	336.52	0.12
1400.00	0.85	353.92	1399.81	20.44	-8.40	20.44	22.10	337.66	0.08
1500.00	0.88	351.29	1499.80	21.93	-8.59	21.93	23.56	338.60	0.06
1600.00	0.86	346.40	1599.79	23.43	-8.89	23.43	25.06	339.22	0.08
1700.00	0.69	342.05	1699.78	24.73	-9.25	24.73	26.41	339.49	0.18
1800.00	0.66	316.48	1799.77	25.72	-9.83	25.72	27.54	339.08	0.30

VES Survey Date: 09/29/2013

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.90	327.28	1899.76	26.80	-10.65	26.80	28.84	338.32	0.28
2000.00	0.89	300.87	1999.75	27.86	-11.74	27.86	30.23	337.14	0.41
2045.00	0.88	300.81	2044.74	28.22	-12.34	28.22	30.80	336.38	0.02

VES Survey Date: 09/29/2013

Mewbourne Oil Co

Eddy County, New Mexico
Sec 24-T19S-R25E
Wyatt Draw 13 PA #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

09 October, 2013

The DIRECTIONAL DRILLING COMPANY

DDC
Survey Report

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Wyatt Draw 13 PA #1H
Project:	Eddy County, New Mexico	**TVD Reference:**	WELL @ 3411.0usft (Patterson)
Site:	Sec 24-T19S-R25E	**MD Reference:**	WELL @ 3411.0usft (Patterson)
Well:	Wyatt Draw 13 PA #1H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	EDM 5000.1 Single User Db

Project Eddy 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 24-T19S-R25E

Site Position:		**Northing:**	597,128.75 usft	**Latitude:**	32° 38' 29.628 N
From:	Map	**Easting:**	466,881.19 usft	**Longitude:**	104° 26' 27.333 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	-0.06 °

Well Wyatt Draw 13 PA #1H

Well Position	**+N/-S**	0.0 usft	**Northing:**	601,167.28 usft	**Latitude:**	32° 39' 9.617 N
	+E/-W	0.0 usft	**Easting:**	469,547.44 usft	**Longitude:**	104° 25' 56.195 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,391.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/18/2013	7.74	60.38	48,553

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 (°)
	0.0	0.0	0.0	0.00

Survey Program **Date** 10/9/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	2,045.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
2,127.0	7,545.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (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	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.52	352.63	100.0	0.5	-0.1	0.5	0.52	0.52	0.00
200.0	0.58	344.81	200.0	1.4	-0.2	1.4	0.10	0.06	-7.82
300.0	0.84	345.52	300.0	2.6	-0.6	2.6	0.26	0.26	0.71
400.0	0.95	333.62	400.0	4.0	-1.1	4.0	0.22	0.11	-11.90
500.0	1.22	338.12	500.0	5.8	-1.9	5.8	0.28	0.27	4.50
600.0	1.10	329.00	599.9	7.6	-2.8	7.6	0.22	-0.12	-9.12
700.0	1.26	335.06	699.9	9.4	-3.7	9.4	0.20	0.16	6.06
800.0	1.07	330.06	799.9	11.2	-4.7	11.2	0.22	-0.19	-5.00
900.0	1.02	332.11	899.9	12.8	-5.5	12.8	0.06	-0.05	2.05

DDC
Survey Report

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Wyatt Draw 13 PA #1H
Project:	Eddy County, New Mexico	**TVD Reference:**	WELL @ 3411.0usft (Patterson)
Site:	Sec 24-T19S-R25E	**MD Reference:**	WELL @ 3411.0usft (Patterson)
Well:	Wyatt Draw 13 PA #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 (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.97	328.77	999.9	14.3	-6.4	14.3	0.08	-0.05	-3.34
1,100.0	0.98	330.27	1,099.8	15.8	-7.3	15.8	0.03	0.01	1.50
1,200.0	0.94	345.31	1,199.8	17.3	-7.9	17.3	0.25	-0.04	15.04
1,300.0	0.92	352.25	1,299.8	18.9	-8.2	18.9	0.11	-0.02	6.94
1,400.0	0.85	353.92	1,399.8	20.4	-8.4	20.4	0.07	-0.07	1.67
1,500.0	0.88	351.29	1,499.8	21.9	-8.6	21.9	0.05	0.03	-2.63
1,600.0	0.86	346.40	1,599.8	23.4	-8.9	23.4	0.08	-0.02	-4.89
1,700.0	0.69	342.05	1,699.8	24.7	-9.2	24.7	0.18	-0.17	-4.35
1,800.0	0.66	316.48	1,799.8	25.7	-9.8	25.7	0.30	-0.03	-25.57
1,900.0	0.90	327.28	1,899.8	26.8	-10.6	26.8	0.28	0.24	10.80
2,000.0	0.89	300.87	1,999.7	27.9	-11.7	27.9	0.41	-0.01	-26.41
TIE IN @ 2045' MD / 2044.7' TVD									
2,045.0	0.88	300.81	2,044.7	28.2	-12.3	28.2	0.02	-0.02	-0.13
2,127.0	4.80	2.10	2,126.6	32.0	-12.8	32.0	5.42	4.78	74.74
2,158.0	8.40	4.60	2,157.4	35.5	-12.5	35.5	11.65	11.61	8.06
2,190.0	12.10	5.10	2,188.9	41.2	-12.0	41.2	11.57	11.56	1.56
2,221.0	15.60	3.50	2,219.0	48.6	-11.5	48.6	11.36	11.29	-5.16
2,253.0	18.80	2.50	2,249.6	58.0	-11.0	58.0	10.04	10.00	-3.13
2,284.0	21.70	2.10	2,278.6	68.8	-10.6	68.8	9.37	9.35	-1.29
2,316.0	24.90	2.60	2,308.0	81.4	-10.1	81.4	10.02	10.00	1.56
2,347.0	27.80	1.40	2,335.8	95.1	-9.6	95.1	9.51	9.35	-3.87
2,379.0	30.00	359.50	2,363.8	110.6	-9.5	110.6	7.45	6.88	-5.94
2,410.0	31.60	359.50	2,390.5	126.5	-9.6	126.5	5.16	5.16	0.00
2,442.0	33.40	358.80	2,417.4	143.7	-9.9	143.7	5.75	5.63	-2.19
2,473.0	35.30	359.00	2,443.0	161.2	-10.2	161.2	6.14	6.13	0.65
2,505.0	37.10	357.20	2,468.9	180.0	-10.8	180.0	6.53	5.63	-5.63
CROSSED LEASE LINE @ 2520.3' MD / 2481.0' TVD									
2,520.3	38.13	357.81	2,481.0	189.4	-11.2	189.4	7.18	6.76	3.96
2,536.0	39.20	358.40	2,493.2	199.2	-11.6	199.2	7.18	6.78	3.78
2,568.0	41.50	358.60	2,517.6	219.9	-12.1	219.9	7.20	7.19	0.63
2,598.0	44.30	359.30	2,539.6	240.3	-12.5	240.3	9.47	9.33	2.33
2,630.0	46.80	358.60	2,562.0	263.1	-12.9	263.1	7.97	7.81	-2.19
2,661.0	49.10	0.70	2,582.8	286.2	-13.0	286.2	8.96	7.42	6.77
2,693.0	50.80	1.10	2,603.4	310.7	-12.6	310.7	5.40	5.31	1.25
2,725.0	53.30	0.90	2,623.0	335.9	-12.2	335.9	7.83	7.81	-0.63
2,756.0	55.40	359.50	2,641.1	361.1	-12.1	361.1	7.70	6.77	-4.52
2,788.0	58.00	358.30	2,658.7	387.8	-12.6	387.8	8.71	8.13	-3.75
2,819.0	60.40	357.50	2,674.5	414.4	-13.6	414.4	8.05	7.74	-2.58
2,851.0	63.00	357.50	2,689.7	442.6	-14.8	442.6	8.13	8.13	0.00
2,882.0	65.90	357.40	2,703.1	470.5	-16.1	470.5	9.36	9.35	-0.32
2,914.0	68.80	358.30	2,715.4	500.0	-17.2	500.0	9.43	9.06	2.81
CROSSED HARDLINE @ 2935.3' MD / 2722.8' TVD									
2,935.3	70.52	358.99	2,722.8	520.0	-17.7	520.0	8.62	8.06	3.24

DDC
Survey Report

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Wyatt Draw 13 PA #1H
Project:	Eddy County, New Mexico	**TVD Reference:**	WELL @ 3411.0usft (Patterson)
Site:	Sec 24-T19S-R25E	**MD Reference:**	WELL @ 3411.0usft (Patterson)
Well:	Wyatt Draw 13 PA #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 (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,945.0	71.30	359.30	2,726.0	529.1	-17.8	529.1	8.62	8.07	3.19
2,977.0	74.00	359.60	2,735.5	559.7	-18.1	559.7	8.48	8.44	0.94
3,008.0	76.60	0.90	2,743.4	589.7	-18.0	589.7	9.32	8.39	4.19
3,040.0	79.10	1.20	2,750.1	620.9	-17.4	620.9	7.87	7.81	0.94
3,071.0	81.90	2.10	2,755.2	651.5	-16.5	651.5	9.48	9.03	2.90
3,103.0	84.20	2.30	2,759.1	683.2	-15.3	683.2	7.21	7.19	0.63
3,134.0	85.60	1.20	2,761.9	714.1	-14.3	714.1	5.73	4.52	-3.55
3,166.0	86.60	0.50	2,764.0	746.0	-13.9	746.0	3.81	3.13	-2.19
3,197.0	87.50	3.00	2,765.6	777.0	-12.9	777.0	8.56	2.90	8.06
3,229.0	88.60	2.30	2,766.7	808.9	-11.4	808.9	4.07	3.44	-2.19
3,261.0	88.80	1.90	2,767.4	840.9	-10.3	840.9	1.40	0.63	-1.25
3,292.0	88.90	2.10	2,768.1	871.8	-9.2	871.8	0.72	0.32	0.65
3,324.0	89.20	3.90	2,768.6	903.8	-7.5	903.8	5.70	0.94	5.63
3,334.0	89.00	2.50	2,768.8	913.8	-7.0	913.8	14.14	-2.00	-14.00
3,480.0	90.20	2.50	2,769.8	1,059.6	-0.6	1,059.6	0.82	0.82	0.00
3,511.0	88.40	2.70	2,770.2	1,090.6	0.8	1,090.6	5.84	-5.81	0.65
3,543.0	87.90	2.70	2,771.2	1,122.5	2.3	1,122.5	1.56	-1.56	0.00
3,573.0	88.50	2.30	2,772.1	1,152.5	3.6	1,152.5	2.40	2.00	-1.33
3,605.0	88.80	1.80	2,772.9	1,184.5	4.8	1,184.5	1.82	0.94	-1.56
3,637.0	88.20	1.30	2,773.7	1,216.5	5.6	1,216.5	2.44	-1.88	-1.56
3,668.0	86.50	359.90	2,775.2	1,247.4	6.0	1,247.4	7.10	-5.48	-4.52
3,700.0	86.70	0.10	2,777.1	1,279.4	6.0	1,279.4	0.88	0.63	0.63
3,731.0	87.30	359.40	2,778.7	1,310.3	5.8	1,310.3	2.97	1.94	-2.26
3,763.0	88.00	0.60	2,780.0	1,342.3	5.8	1,342.3	4.34	2.19	3.75
3,794.0	87.60	0.40	2,781.2	1,373.3	6.1	1,373.3	1.44	-1.29	-0.65
3,826.0	87.00	1.80	2,782.7	1,405.2	6.7	1,405.2	4.76	-1.88	4.38
3,858.0	87.70	0.90	2,784.2	1,437.2	7.5	1,437.2	3.56	2.19	-2.81
3,889.0	88.20	0.10	2,785.3	1,468.2	7.7	1,468.2	3.04	1.61	-2.58
3,921.0	89.00	0.60	2,786.1	1,500.1	7.9	1,500.1	2.95	2.50	1.56
3,952.0	89.50	359.00	2,786.5	1,531.1	7.8	1,531.1	5.41	1.61	-5.16
4,015.0	90.30	0.40	2,786.6	1,594.1	7.5	1,594.1	2.56	1.27	2.22
4,079.0	91.40	2.20	2,785.6	1,658.1	8.9	1,658.1	3.30	1.72	2.81
4,142.0	91.00	359.70	2,784.3	1,721.1	10.0	1,721.1	4.02	-0.63	-3.97
4,205.0	91.80	0.20	2,782.8	1,784.1	9.9	1,784.1	1.50	1.27	0.79
4,269.0	91.00	0.60	2,781.2	1,848.0	10.4	1,848.0	1.40	-1.25	0.63
4,332.0	91.70	0.90	2,779.7	1,911.0	11.2	1,911.0	1.21	1.11	0.48
4,395.0	90.30	359.20	2,778.6	1,974.0	11.3	1,974.0	3.50	-2.22	-2.70
4,458.0	90.10	359.70	2,778.4	2,037.0	10.7	2,037.0	0.85	-0.32	0.79
4,522.0	91.00	1.30	2,777.8	2,101.0	11.2	2,101.0	2.87	1.41	2.50
4,585.0	90.50	359.00	2,777.0	2,164.0	11.4	2,164.0	3.74	-0.79	-3.65
4,648.0	91.40	358.60	2,775.9	2,227.0	10.1	2,227.0	1.56	1.43	-0.63
4,711.0	90.00	2.00	2,775.1	2,289.9	10.4	2,289.9	5.84	-2.22	5.40
4,775.0	90.90	0.60	2,774.6	2,353.9	11.8	2,353.9	2.60	1.41	-2.19
4,838.0	90.80	2.50	2,773.7	2,416.9	13.5	2,416.9	3.02	-0.16	3.02

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Wyatt Draw 13 PA #1H
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Site:	Sec 24-T19S-R25E	**MD Reference:**	WELL @ 3411.0usft (Patterson)
Well:	Wyatt Draw 13 PA #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 (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,901.0	89.80	1.50	2,773.4	2,479.8	15.7	2,479.8	2.24	-1.59	-1.59
4,965.0	90.50	0.90	2,773.2	2,543.8	17.1	2,543.8	1.44	1.09	-0.94
5,028.0	91.30	2.30	2,772.2	2,606.8	18.8	2,606.8	2.56	1.27	2.22
5,091.0	90.40	0.80	2,771.3	2,669.8	20.5	2,669.8	2.78	-1.43	-2.38
5,155.0	91.40	0.80	2,770.3	2,733.8	21.4	2,733.8	1.56	1.56	0.00
5,218.0	90.30	2.70	2,769.3	2,796.7	23.4	2,796.7	3.48	-1.75	3.02
5,280.0	91.10	2.30	2,768.6	2,858.6	26.1	2,858.6	1.44	1.29	-0.65
5,343.0	90.00	0.40	2,768.0	2,921.6	27.5	2,921.6	3.48	-1.75	-3.02
5,404.0	90.80	0.90	2,767.6	2,982.6	28.2	2,982.6	1.55	1.31	0.82
5,467.0	92.00	0.60	2,766.0	3,045.6	29.1	3,045.6	1.96	1.90	-0.48
5,529.0	92.00	0.10	2,763.9	3,107.6	29.4	3,107.6	0.81	0.00	-0.81
5,591.0	91.20	1.60	2,762.1	3,169.5	30.4	3,169.5	2.74	-1.29	2.42
5,652.0	90.00	0.80	2,761.5	3,230.5	31.6	3,230.5	2.36	-1.97	-1.31
5,714.0	90.80	0.40	2,761.1	3,292.5	32.3	3,292.5	1.44	1.29	-0.65
5,777.0	90.10	1.50	2,760.6	3,355.5	33.3	3,355.5	2.07	-1.11	1.75
5,839.0	90.80	0.90	2,760.1	3,417.5	34.6	3,417.5	1.49	1.13	-0.97
5,902.0	91.90	1.80	2,758.6	3,480.4	36.1	3,480.4	2.26	1.75	1.43
5,964.0	92.60	359.00	2,756.1	3,542.4	36.5	3,542.4	4.65	1.13	-4.52
6,025.0	91.80	359.90	2,753.8	3,603.3	36.0	3,603.3	1.97	-1.31	1.48
6,088.0	90.80	359.40	2,752.4	3,666.3	35.6	3,666.3	1.77	-1.59	-0.79
6,150.0	89.60	357.20	2,752.2	3,728.3	33.7	3,728.3	4.04	-1.94	-3.55
6,213.0	90.00	358.80	2,752.4	3,791.2	31.5	3,791.2	2.62	0.63	2.54
6,276.0	90.70	356.50	2,752.0	3,854.2	29.0	3,854.2	3.82	1.11	-3.65
6,340.0	89.60	359.40	2,751.8	3,918.1	26.7	3,918.1	4.85	-1.72	4.53
6,403.0	90.20	357.60	2,751.9	3,981.1	25.0	3,981.1	3.01	0.95	-2.86
6,466.0	90.80	0.10	2,751.4	4,044.1	23.8	4,044.1	4.08	0.95	3.97
6,529.0	91.70	359.20	2,750.0	4,107.1	23.4	4,107.1	2.02	1.43	-1.43
6,592.0	92.20	0.80	2,747.9	4,170.0	23.4	4,170.0	2.66	0.79	2.54
6,656.0	90.80	359.50	2,746.2	4,234.0	23.5	4,234.0	2.98	-2.19	-2.03
6,719.0	90.20	0.80	2,745.6	4,297.0	23.7	4,297.0	2.27	-0.95	2.06
6,782.0	91.10	1.30	2,744.9	4,360.0	24.9	4,360.0	1.63	1.43	0.79
6,845.0	90.60	2.50	2,744.0	4,422.9	26.9	4,422.9	2.06	-0.79	1.90
6,909.0	90.50	2.50	2,743.4	4,486.9	29.7	4,486.9	0.16	-0.16	0.00
6,972.0	91.00	2.00	2,742.6	4,549.8	32.2	4,549.8	1.12	0.79	-0.79
7,036.0	92.10	2.50	2,740.8	4,613.7	34.7	4,613.7	1.89	1.72	0.78
7,099.0	92.20	0.90	2,738.5	4,676.7	36.6	4,676.7	2.54	0.16	-2.54
7,162.0	90.00	359.40	2,737.3	4,739.7	36.8	4,739.7	4.23	-3.49	-2.38
7,225.0	90.70	359.50	2,736.9	4,802.7	36.1	4,802.7	1.12	1.11	0.16
7,288.0	90.20	359.20	2,736.4	4,865.6	35.4	4,865.6	0.93	-0.79	-0.48
7,351.0	91.00	359.40	2,735.7	4,928.6	34.7	4,928.6	1.31	1.27	0.32
7,415.0	90.80	359.40	2,734.7	4,992.6	34.0	4,992.6	0.31	-0.31	0.00
7,478.0	89.60	359.20	2,734.5	5,055.6	33.2	5,055.6	1.93	-1.90	-0.32
7,502.0	89.70	359.50	2,734.6	5,079.6	33.0	5,079.6	1.32	0.42	1.25

DDC
Survey Report

Company:	Mewbourne Oil Co	**Local Co-ordinate Reference:**	Well Wyatt Draw 13 PA #1H
Project:	Eddy County, New Mexico	**TVD Reference:**	WELL @ 3411.0usft (Patterson)
Site:	Sec 24-T19S-R25E	**MD Reference:**	WELL @ 3411.0usft (Patterson)
Well:	Wyatt Draw 13 PA #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 (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD @ 7545' MD / 2734.9' TVD									
7,545.0	89.70	359.50	2,734.9	5,122.6	32.6	5,122.6	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
2,045.0	2,044.7	28.2	-12.3	TIE IN @ 2045' MD / 2044.7' TVD
2,520.3	2,481.0	189.4	-11.2	CROSSED LEASE LINE @ 2520.3' MD / 2481.0' TVD
2,935.3	2,722.8	520.0	-17.7	CROSSED HARDLINE @ 2935.3' MD / 2722.8' TVD
7,545.0	2,734.9	5,122.6	32.6	TD @ 7545' MD / 2734.9' TVD

Checked By: _____ Approved By: _____ Date: _____

Company Name: Mewbourne Oil Co
Wyatt Draw 13 PA #1H
Eddy County, New Mexico
Rig: Patterson # 41
Created By: TIFFANI MIZELL
Date: 10/15/2013

Wyatt Draw 13 PA #1H
Eddy County, New Mexico
Q130813 & WT-13754
Design #2

Mewbourne Oil Company

The DIRECTIONAL DRILLING COMPANY

G T M

Azimuths to Grid North
Correction: 7.79°
Magnetic Field
Strength: 48552.8snT
Dip Angle: 60.38°
Date: 9/18/2013
Model: IGRF2010

PROJECT DETAILS:	Eddy 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: Wyatt Draw 13 PA #1H

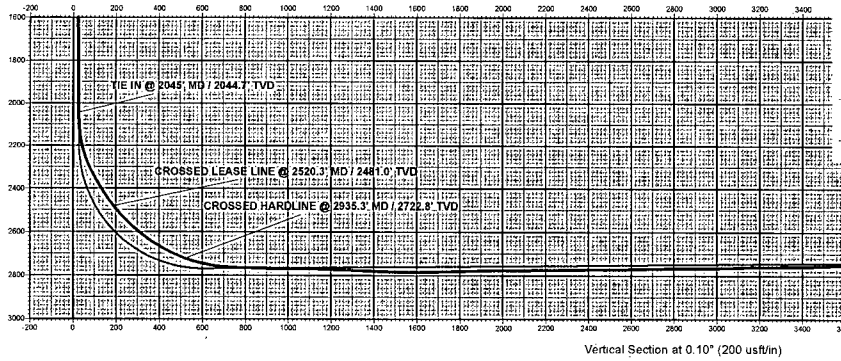
+N/-S	+E/-W	Ground Level: Northing	Easting	3391.0 Latitude	Longitude
0.0	0.0	601167.27	459547.44	32° 39' 9.617 N	104° 25' 56.195 W

DESIGN TARGET DETAILS

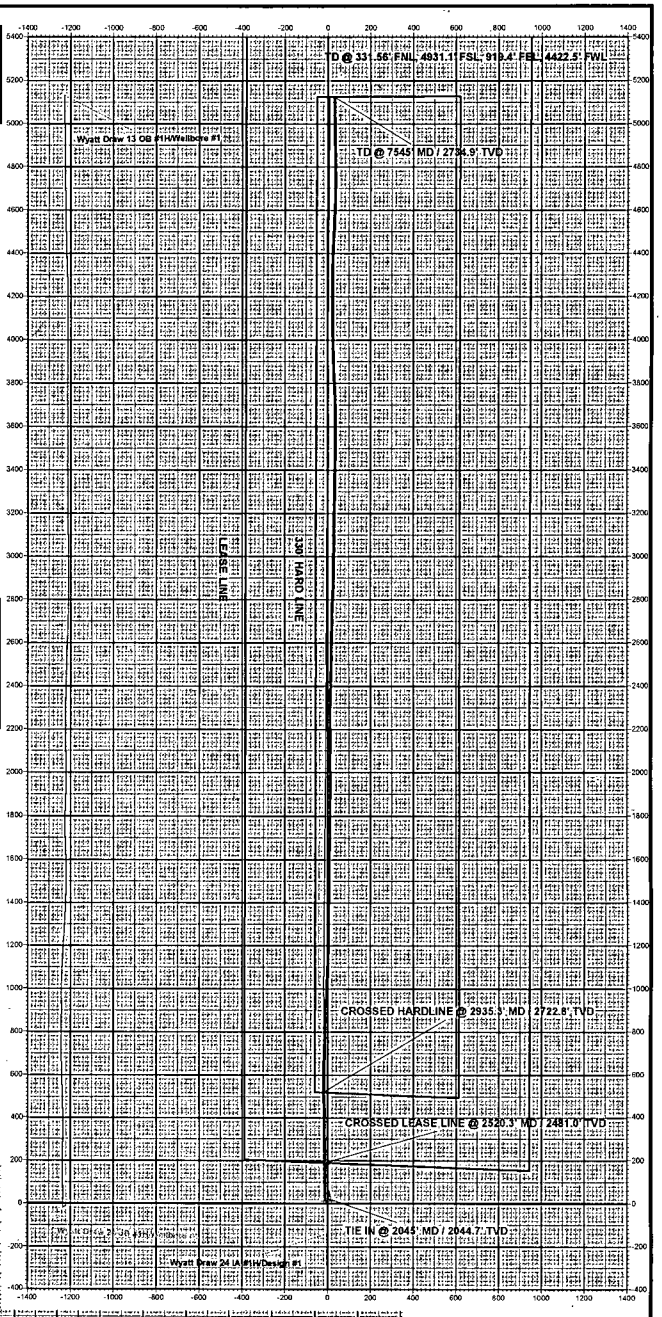
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - Wyatt Draw 13 PA #1H - plan hits target center	2730.0	5124.2	9.0	606291.49	459556.46	32° 40' 0.325 N	104° 25' 56.145 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
2045.0	0.88	300.81	2044.7	28.2	-12.3	28.2	31.5	TIE IN @ 2045' MD / 2044.7' TVD
2520.3	38.13	357.81	2481.0	189.4	-11.2	189.4	193.2	CROSSED LEASE LINE @ 2520.3' MD / 2481.0' TVD
2935.3	70.52	358.99	2722.8	620.0	-17.7	619.9	623.9	CROSSED HARDLINE @ 2935.3' MD / 2722.8' TVD
7545.0	89.70	359.50	2734.9	5122.6	32.6	5122.7	5127.9	TD @ 7545' MD / 2734.9' TVD



Vertical Section at 0.10° (200 usft/in)



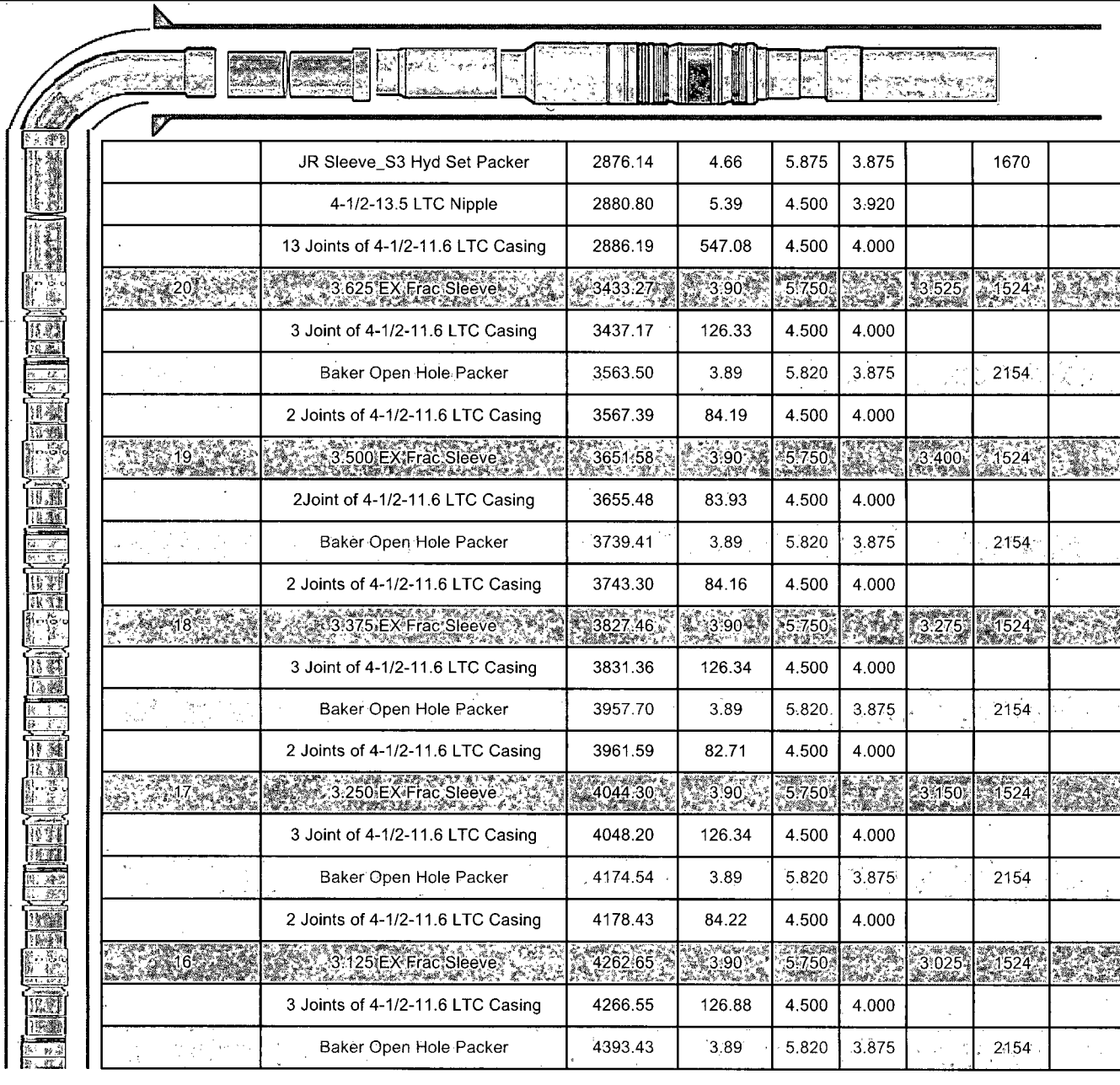
Operating Company	Mewbourne	**Company Rep**	Sandy	
Well Name & Number	Wyatt Draw 13 PA #1H	**Field**		
Sales Ticket Number	5853448	**BOT Service Rep**	Joseph Haynes	
Date	10/9/2013	**District Location**	Odessa, Texas, USA	

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	3,384.00	9,960	6,230
Top Liner	4.500	11.60	55000	4.000	3.875	LT&C	0.01492	4,632.86	6,111	4,960
Bott Liner										

TVD	2,735.00	KOP	2,045.00	Open Hole	6.125	Casing Vol. (bbl)	
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		JR Setting Sleeve_RH Profile	2872.14	4.00	5.750	4.000				



Zone Length										
		JR Sleeve_S3 Hyd Set Packer	2876.14	4.66	5.875	3.875		1670		
		4-1/2-13.5 LTC Nipple	2880.80	5.39	4.500	3.920				
		13 Joints of 4-1/2-11.6 LTC Casing	2886.19	547.08	4.500	4.000				
20	20	3.625 EX Frac Sleeve	3433.27	3.90	5.750		3.525	1524		
		3 Joint of 4-1/2-11.6 LTC Casing	3437.17	126.33	4.500	4.000				
		Baker Open Hole Packer	3563.50	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	3567.39	84.19	4.500	4.000				
19	19	3.500 EX Frac Sleeve	3651.58	3.90	5.750		3.400	1524		
		2Joint of 4-1/2-11.6 LTC Casing	3655.48	83.93	4.500	4.000				
		Baker Open Hole Packer	3739.41	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	3743.30	84.16	4.500	4.000				
18	18	3.375 EX Frac Sleeve	3827.46	3.90	5.750		3.275	1524		
		3 Joint of 4-1/2-11.6 LTC Casing	3831.36	126.34	4.500	4.000				
		Baker Open Hole Packer	3957.70	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	3961.59	82.71	4.500	4.000				
17	17	3.250 EX Frac Sleeve	4044.30	3.90	5.750		3.150	1524		
		3 Joint of 4-1/2-11.6 LTC Casing	4048.20	126.34	4.500	4.000				
		Baker Open Hole Packer	4174.54	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	4178.43	84.22	4.500	4.000				
16	16	3.125 EX Frac Sleeve	4262.65	3.90	5.750		3.025	1524		
		3 Joints of 4-1/2-11.6 LTC Casing	4266.55	126.88	4.500	4.000				
		Baker Open Hole Packer	4393.43	3.89	5.820	3.875		2154		

Operating Company	Mewbourne	**Company Rep**	Sandy		
Well Name & Number	Wyatt Draw 13 PA #1H	**Field**			
Sales Ticket Number	5853448	**BOT Service Rep**	Joseph Haynes		
Date	10/9/2013	**District Location**	Odessa, Texas, USA		

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	3,384.00	9,960	6,230
Top Liner	4.500	11.60	55000	4.000	3.875	LT&C	0.01492	4,632.86	6,111	4,960
Bott Liner										

TVD	2,735.00	KOP	2,045.00	Open Hole	6.125	Casing Vol. (bbl)
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 Joints of 4-1/2-11.6 LTC Casing	4397.32	85.25	4.500	4.000				
15		15	3.000 EX Frac sleeve	4482.57	3.90	5.750		2.900	1524		
			3 Joint of 4-1/2-11.6 LTC Casing	4486.47	127.83	4.500	4.000				
			Baker Open Hole Packer	4614.30	3.89	5.820	3.875		2154		
			2 Joints of 4-1/2-11.6 LTC Casing	4618.19	84.73	4.500	4.000				
14		14	2.875 EX Frac Sleeve	4702.92	3.90	5.750		2.775	1524		
			3 Joints of 4-1/2-11.6 LTC Casing	4706.82	126.29	4.500	4.000				
			Baker Open Hole Packer	4833.11	3.89	5.820	3.875		2154		
			2 Joints of 4-1/2-11.6 LTC Casing	4837.00	84.18	4.500	4.000				
13		13	2.750 EX Frac Sleeve	4921.18	3.90	5.750		2.650	1524		
			3 Joint of 4-1/2-11.6 LTC Casing	4925.08	126.30	4.500	4.000				
			Baker Open Hole Packer	5051.38	3.89	5.820	3.875		2154		
			2 Joints of 4-1/2-11.6 LTC Casing	5055.27	84.21	4.500	4.000				
12		12	2.625 EX Frac Sleeve	5139.48	3.90	5.750		2.525	1524		
			3 Joints of 4-1/2-11.6 LTC Casing	5143.38	126.30	4.500	4.000				
			Baker Open Hole Packer	5269.68	3.89	5.820	3.875		2154		
			2 Joints of 4-1/2-11.6 LTC Casing	5273.57	84.22	4.500	4.000				
11		11	2.500 EX Frac Sleeve	5357.79	3.90	5.750		2.400	1524		
			3 Joint of 4-1/2-11.6 LTC Casing	5361.69	126.31	4.500	4.000				
			Baker Open Hole Packer	5488.00	3.89	5.820	3.875		2154		
			2 Joints of 4-1/2-11.6 LTC Casing	5491.89	84.22	4.500	4.000				
10		10	2.375 EX Frac Sleeve	5576.11	3.90	5.750		2.275	1524		
			3 Joints of 4-1/2-11.6 LTC Casing	5580.01	126.30	4.500	4.000				
			Baker Open Hole Packer	5706.31	3.89	5.820	3.875		2154		
			2 Joint of 4-1/2-11.6 LTC Casing	5710.20	84.21	4.500	4.000				
9		9	2.250 EX Frac Sleeve	5794.41	3.90	5.750		2.150	1524		

Operating Company	Mewbourne	**Company Rep**	Sandy	
Well Name & Number	Wyatt Draw 13 PA #1H	**Field**		
Sales Ticket Number	5853448	**BOT Service Rep**	Joseph Haynes	
Date	10/9/2013	**District Location**	Odessa, Texas, USA	

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	3,384.00	9,960	6,230
Top Liner	4.500	11.60	55000	4.000	3.875	LT&C	0.01492	4,632.86	6,111	4,960
Bott Liner										

TVD	2,735.00	KOP	2,045.00	Open Hole	6.125	Casing Vol. (bbl)	
Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)				Max Drill Out Size	0

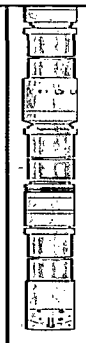
	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
		3 Joints of 4-1/2-11.6 LTC Casing	5798.31	126.32	4.500	4.000				
		Baker Open Hole Packer	5924.63	3.89	5.820	3.875		2154		
		2 Joint of 4-1/2-11.6 LTC Casing	5928.52	84.19	4.500	4.000				
8	8	2.125 EX Frac Sleeve	6012.71	3.90	5.750		2.025	1524		
		2 Joints of 4-1/2-11.6 LTC Casing	6016.61	84.23	4.500	4.000				
		Baker Open Hole Packer	6100.84	3.89	5.820	3.875		2154		
		2 Joint of 4-1/2-11.6 LTC Casing	6104.73	84.20	4.500	4.000				
7	7	2.000 EX Frac Sleeve	6188.93	3.90	5.750		1.900	1524		
		3 Joints of 4-1/2-11.6 LTC Casing	6192.83	126.30	4.500	4.000				
		Baker Open Hole Packer	6319.13	3.89	5.820	3.875		2154		
		2 Joint of 4-1/2-11.6 LTC Casing	6323.02	84.25	4.500	4.000				
6	6	1.875 EX Frac Sleeve	6407.27	3.90	5.750		1.775	1524		
		3 Joints of 4-1/2-11.6 LTC Casing	6411.17	126.15	4.500	4.000				
		Baker Open Hole Packer	6537.32	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	6541.21	84.16	4.500	4.000				
5	5	1.750 EX Frac Sleeve	6625.37	3.90	5.750		1.650	1524		
		3 Joint of 4-1/2-11.6 LTC Casing	6629.27	126.28	4.500	4.000				
		Baker Open Hole Packer	6755.55	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	6759.44	84.05	4.500	4.000				
4	4	1.625 EX Frac Sleeve	6843.49	3.90	5.750		1.525	1524		
		3 Joints of 4-1/2-11.6 LTC Casing	6847.39	126.33	4.500	4.000				
		Baker Open Hole Packer	6973.72	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-11.6 LTC Casing	6977.61	84.24	4.500	4.000				
3	3	1.500 DBL Ball Frac Sleeve	7061.85	3.90	5.750		1.400	1524		
		3 Joint of 4-1/2-11.6 LTC Casing	7065.75	126.31	4.500	4.000				
		Baker Open Hole Packer	7192.06	3.89	5.820	3.875		2154		

Operating Company	Mewbourne	**Company Rep**	Sandy	
Well Name & Number	Wyatt Draw 13 PA #1H	**Field**		
Sales Ticket Number	5853448	**BOT Service Rep**	Joseph Haynes	
Date	10/9/2013	**District Location**	Odessa, Texas, USA	

BAKER HUGHES

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LT&C	0.03826	3,384.00	9,960	6,230
Top Liner	4.500	11.60	55000	4.000	3.875	LT&C	0.01492	4,632.86	6,111	4,960
Bott Liner										

TVD	2,735.00	KOP	2,045.00	Open Hole	6.125	Casing Vol. (bbl)	
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 Joints of 4-1/2-11.6 LTC Casing	7195.95	85.21	4.500	4.000				
2	1.375 DBL Ball Frac Sleeve	7281.16	3.90	5.750		1.275	1524		
	3 Joints of 4-1/2-11.6 LTC Casing	7285.06	127.80	4.500	4.000				
	Baker Open Hole Packer	7412.86	3.89	5.820	3.875		2154		
	2 Joints of 4-1/2-11.6 LTC Casing	7416.75	85.22	4.500	4.000				
1	Pump olff Sub	7501.97	3.03	4.500	1.000				