

Company: Mewbourne Oil Company
Lease/Well: Zircon 2 EH State / No. 001H

Rig Name: Patterson 46
State/County: New Mexico / Eddy
Latitude: 32.69, Longitude: -104.05
GRID North is 0.15 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB = 20'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: zircon2ehstate1h final.ut

Minimum Curvature Method

Report Date/Time: 10/26/2012 / 08:05

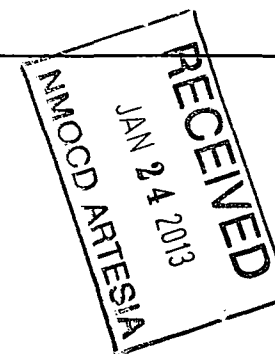
Vaughn Energy Services

Fort Worth, Texas

817-741-3610

Surveyor: Jay Carroll

Zircon 2 EH State No. 001H / API 30-015-40572

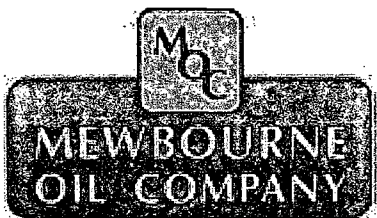


15-40572

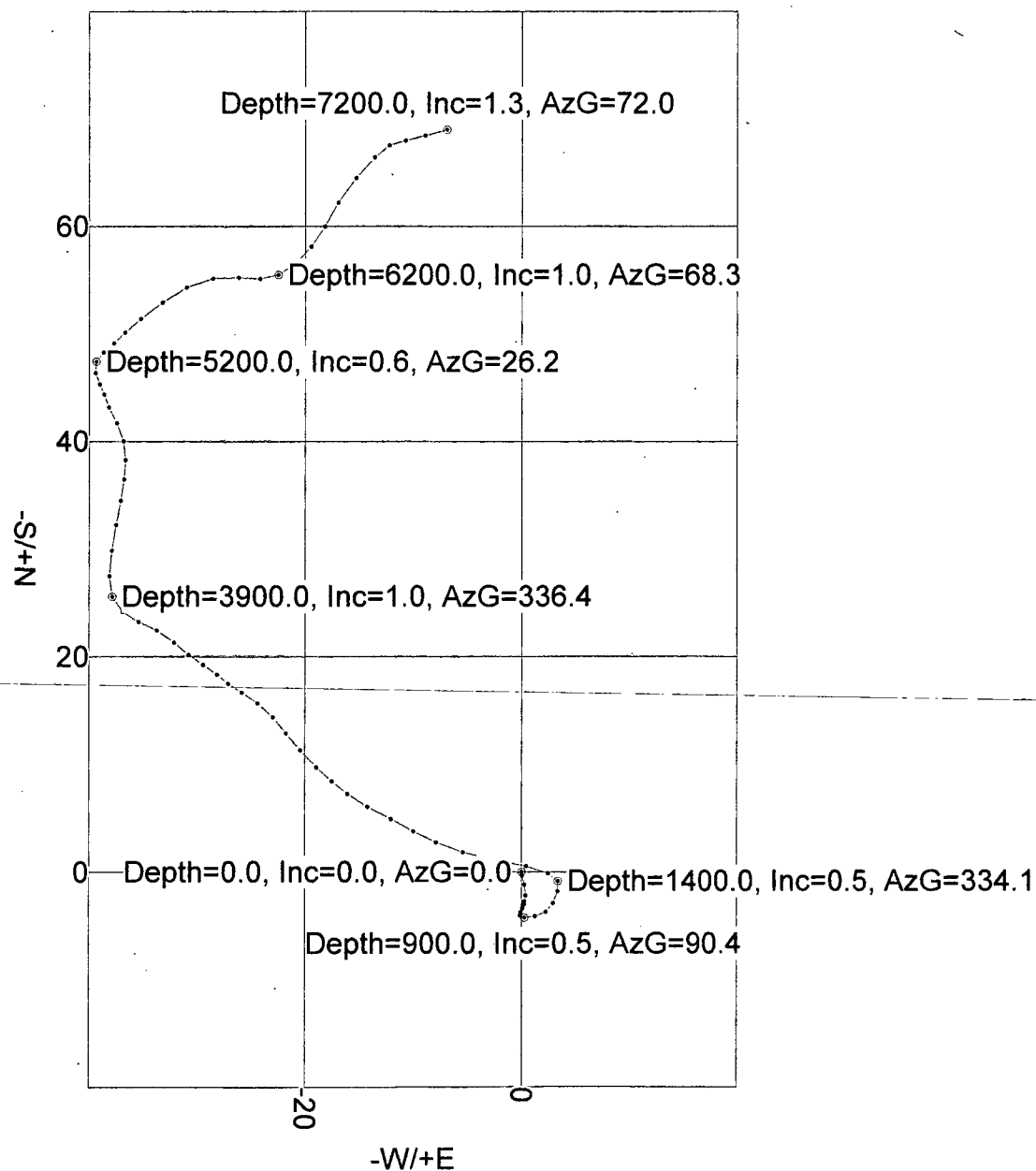
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.39	166.04	100.00	-0.33	0.08	-0.33	0.34	166.04	0.39
200.00	0.62	167.14	200.00	-1.18	0.28	-1.18	1.21	166.53	0.23
300.00	0.53	183.12	299.99	-2.17	0.38	-2.17	2.20	170.14	0.18
400.00	0.18	208.00	399.99	-2.78	0.28	-2.78	2.79	174.30	0.38
500.00	0.17	170.73	499.99	-3.06	0.23	-3.06	3.07	175.79	0.11
600.00	0.28	214.46	599.99	-3.40	0.11	-3.40	3.41	178.17	0.20
700.00	0.17	197.08	699.99	-3.75	-0.07	-3.75	3.75	181.14	0.13
800.00	0.21	179.92	799.99	-4.08	-0.12	-4.08	4.08	181.66	0.07
900.00	0.46	90.36	899.98	-4.26	0.28	-4.26	4.27	176.22	0.50
1000.00	0.65	75.56	999.98	-4.12	1.24	-4.12	4.31	163.33	0.24
1100.00	0.60	61.07	1099.97	-3.73	2.25	-3.73	4.35	148.91	0.17
1200.00	0.69	21.03	1199.97	-2.91	2.92	-2.91	4.13	134.90	0.45
1300.00	0.67	20.91	1299.96	-1.81	3.35	-1.81	3.80	118.36	0.02
1400.00	0.50	334.12	1399.96	-0.86	3.36	-0.86	3.47	104.41	0.49
1500.00	0.90	295.76	1499.95	-0.13	2.47	-0.13	2.47	92.97	0.59
1600.00	1.57	283.11	1599.93	0.52	0.43	0.52	0.68	39.49	0.72
1700.00	1.82	280.67	1699.88	1.13	-2.46	1.13	2.71	294.59	0.27
1800.00	1.62	287.04	1799.84	1.84	-5.38	1.84	5.68	288.85	0.28

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	1.40	294.05	1899.80	2.75	-7.84	2.75	8.31	289.30	0.29
2000.00	1.34	297.52	1999.77	3.79	-10.00	3.79	10.69	290.74	0.10
2100.00	1.36	299.56	2099.75	4.91	-12.07	4.91	13.03	292.15	0.05
2200.00	1.45	296.34	2199.72	6.06	-14.24	6.06	15.47	293.06	0.12
2300.00	1.12	311.25	2299.69	7.27	-16.11	7.27	17.67	294.29	0.47
2400.00	0.99	307.41	2399.67	8.44	-17.53	8.44	19.46	295.71	0.15
2500.00	1.22	316.17	2499.65	9.73	-18.96	9.73	21.31	297.18	0.28
2600.00	1.26	317.47	2599.63	11.31	-20.44	11.31	23.36	298.96	0.05
2700.00	1.09	323.27	2699.61	12.89	-21.75	12.89	25.28	300.64	0.21
2800.00	1.12	318.71	2799.59	14.38	-22.96	14.38	27.10	302.06	0.09
2900.00	1.09	306.33	2899.57	15.68	-24.37	15.68	28.98	302.75	0.24
3000.00	0.96	301.98	2999.56	16.68	-25.84	16.68	30.76	302.84	0.15
3100.00	0.75	304.54	3099.55	17.50	-27.09	17.50	32.25	302.85	0.21
3200.00	0.79	312.29	3199.54	18.33	-28.15	18.33	33.59	303.08	0.11
3300.00	1.01	299.13	3299.52	19.23	-29.43	19.23	35.16	303.16	0.30
3400.00	0.88	312.84	3399.51	20.18	-30.77	20.18	36.80	303.27	0.26
3500.00	1.14	308.32	3499.50	21.32	-32.11	21.32	38.55	303.59	0.27
3600.00	1.10	302.67	3599.48	22.46	-33.70	22.46	40.50	303.68	0.12
3700.00	1.05	286.70	3699.46	23.24	-35.38	23.24	42.33	303.30	0.30
3800.00	1.04	316.60	3799.44	24.16	-36.89	24.16	44.10	303.23	0.54
3900.00	0.95	336.41	3899.43	25.59	-37.84	25.59	45.68	304.06	0.35
4000.00	1.32	310	3999.41	27.50	-38.11	27.50	47.00	305.81	0.64
4100.00	1.40	7.35	4099.38	29.86	-37.90	29.86	48.25	308.24	0.13
4200.00	1.37	12.37	4199.35	32.24	-37.48	32.24	49.44	310.70	0.12
4300.00	1.24	8.80	4299.33	34.48	-37.06	34.48	50.62	312.94	0.15
4400.00	1.07	9.66	4399.31	36.47	-36.74	36.47	51.77	314.79	0.17
4500.00	0.99	357.97	4499.29	38.26	-36.61	38.26	52.95	316.26	0.23
4600.00	1.07	349.82	4599.27	40.04	-36.81	40.04	54.38	317.41	0.17
4700.00	1.00	328.76	4699.26	41.70	-37.42	41.70	56.03	318.09	0.38
4800.00	0.90	338.59	4799.24	43.18	-38.16	43.18	57.62	318.53	0.19
4900.00	0.57	340.59	4899.24	44.38	-38.61	44.38	58.83	318.97	0.34
5000.00	0.60	333.30	4999.23	45.32	-39.02	45.32	59.80	319.27	0.08
5100.00	0.71	345.27	5099.22	46.39	-39.41	46.39	60.87	319.65	0.17
5200.00	0.58	26.18	5199.22	47.44	-39.35	47.44	61.63	320.33	0.47
5300.00	0.70	48.45	5299.21	48.30	-38.67	48.30	61.87	321.32	0.28
5400.00	0.77	49.76	5399.20	49.14	-37.70	49.14	61.93	322.51	0.07
5500.00	0.87	43.45	5499.19	50.12	-36.66	50.12	62.10	323.82	0.13
5600.00	1.37	52.24	5599.17	51.40	-35.19	51.40	62.30	325.60	0.53
5700.00	1.53	53.35	5699.14	52.94	-33.18	52.94	62.47	327.92	0.16

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
5800.00	1.49	62.92	5799.11	54.32	-30.95	54.32	62.52	330.33	0.25
5900.00	1.46	80.12	5899.07	55.13	-28.53	55.13	62.08	332.64	0.44
6000.00	1.27	96.73	5999.05	55.22	-26.18	55.22	61.11	334.64	0.44
6100.00	1.03	87.68	6099.03	55.13	-24.18	55.13	60.20	336.32	0.30
6200.00	0.98	68.30	6199.01	55.48	-22.49	55.48	59.87	337.93	0.34
6300.00	1.24	46.74	6298.99	56.54	-20.91	56.54	60.28	339.70	0.49
6400.00	1.25	38.85	6398.97	58.13	-19.44	58.13	61.29	341.51	0.17
6500.00	1.30	28.93	6498.94	59.97	-18.21	59.97	62.67	343.11	0.23
6600.00	1.63	28.46	6598.91	62.21	-16.98	62.21	64.49	344.73	0.33
6700.00	1.63	42.82	6698.87	64.51	-15.34	64.51	66.30	346.62	0.41
6800.00	1.33	39.31	6798.84	66.45	-13.64	66.45	67.83	348.40	0.32
6900.00	0.76	70.80	6898.82	67.56	-12.28	67.56	68.67	349.70	0.79
7000.00	1.02	75.99	6998.81	68.00	-10.79	68.00	68.85	350.99	0.28
7100.00	1.14	76.39	7098.79	68.45	-8.95	68.45	69.03	352.55	0.12
7200.00	1.30	72.00	7198.77	69.03	-6.91	69.03	69.37	354.28	0.18



Vaughn Energy Services
Fort Worth, Texas
817-741-3610
Surveyor: Jay Carroll
Zircon 2 EH State No. 001H / API 30-015-40572



VES Survey Date: 10/22/2012

OPERATOR
WELL/LEASE
COUNTY

MEWBOURNE OIL COMPANY
ZIRCON 2 EH STATE 1H
EDDY

046-0082

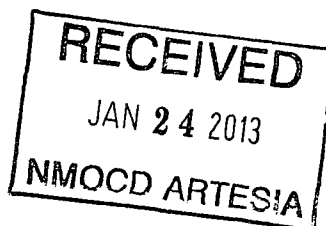
STATE OF NEW MEXICO
DEVIATION REPORT

446	0.26
785	0.40
1,165	1.08
1,533	1.00
1,786	1.24
2,039	1.34
2,293	1.05
2,547	1.03
2,927	1.15
3,307	1.39
3,688	1.50
3,814	1.09
4,195	2.92
4,311	1.25
4,531	1.10
4,670	0.50
4,878	1.25
5,359	0.75
5,767	1.67
6,143	1.32
6,586	1.91
7,014	1.02

Received

OCT 29 2012

Mewbourne Oil Company
Hobbs



BY:

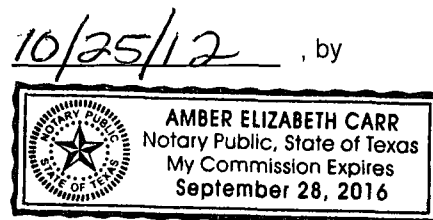
Steve Moore

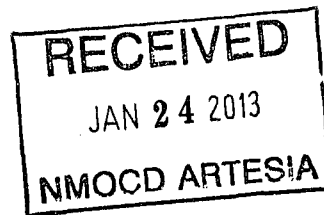
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

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





Mewbourne Oil Co

Eddy County, New Mexico

Sec 2-T19S-R29E

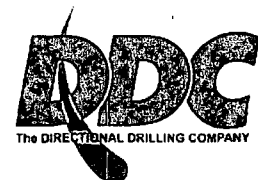
Zircon 2 EH State Com #1H

Wellbore #1

Survey: MWD

DDC Survey Report

01 November, 2012



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 2 EH State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Site:	Sec 2-T19S-R29E	MD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Well:	Zircon 2 EH State Com #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 2-T19S-R29E		
Site Position:		Northing:	615,349.41 usft
From:	Map	Easting:	586,232.29 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 28.972 N
		Longitude:	104° 3' 10.932 W
		Grid Convergence:	0.15 °

Well	Zircon 2 EH State Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 615,349.41 usft
	+E/-W	0.0 usft	Easting: 586,232.29 usft
Position Uncertainty	0.0 usft		Latitude: 32° 41' 28.972 N
			Longitude: 104° 3' 10.932 W
		Wellhead Elevation:	usft
		Ground Level:	3,403.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/19/2012	7.68	60.50	48,710

Design	Wellbore #1		
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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	11/1/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,200.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
7,397.0	12,520.0	MWD (Wellbore #1)	MWD default	MWD - Standard

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)
TIE IN @ 7200' MD / 7199' TVD									
7,200.0	1.30	72.00	7,198.8	69.7	-7.5	69.7	0.00	0.00	0.00
7,397.0	1.80	66.10	7,395.7	71.6	-2.5	71.6	0.27	0.25	-2.99
7,429.0	1.80	56.60	7,427.7	72.1	-1.6	72.1	0.93	0.00	-29.69
7,460.0	2.00	66.40	7,458.7	72.6	-0.7	72.6	1.23	0.65	31.61
7,492.0	3.00	74.60	7,490.6	73.1	0.6	73.1	3.31	3.13	25.63
7,524.0	8.00	83.10	7,522.5	73.5	3.6	73.5	15.79	15.63	26.56
7,556.0	12.80	83.40	7,553.9	74.2	9.4	74.2	15.00	15.00	0.94
7,587.0	16.60	84.10	7,583.9	75.1	17.2	75.1	12.27	12.26	2.26
7,619.0	20.10	86.30	7,614.3	75.9	27.2	75.9	11.15	10.94	6.88

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 2 EH State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Site:	Sec 2-T19S-R29E	MD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Well:	Zircon 2 EH State Com #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)
7,651.0	23.90	88.40	7,644.0	76.4	39.2	76.4	12.12	11.88	6.56
7,682.0	27.00	89.60	7,671.9	76.7	52.5	76.7	10.14	10.00	3.87
7,714.0	30.00	90.10	7,700.1	76.7	67.8	76.7	9.40	9.38	1.56
7,746.0	33.50	89.90	7,727.3	76.7	84.6	76.7	10.94	10.94	-0.63
7,777.0	35.80	89.60	7,752.8	76.8	102.2	76.8	7.44	7.42	-0.97
7,809.0	40.00	88.70	7,778.0	77.1	121.9	77.1	13.24	13.13	-2.81
7,841.0	44.10	89.20	7,801.8	77.5	143.3	77.5	12.86	12.81	1.56
CROSSED HARD LINE @ 7859' MD / 7815' TVD									
7,859.3	46.58	89.56	7,814.6	77.6	156.3	77.6	13.62	13.55	1.99
7,872.0	48.30	89.80	7,823.2	77.7	165.7	77.7	13.62	13.55	1.86
7,904.0	51.70	90.80	7,843.8	77.5	190.2	77.5	10.89	10.63	3.13
7,936.0	55.40	92.70	7,862.8	76.7	215.9	76.7	12.51	11.56	5.94
7,967.0	58.50	93.20	7,879.7	75.4	241.8	75.4	10.09	10.00	1.61
7,999.0	61.40	92.90	7,895.7	73.9	269.5	73.9	9.10	9.06	-0.94
8,031.0	64.80	92.30	7,910.2	72.6	298.0	72.6	10.76	10.63	-1.88
8,062.0	68.10	91.70	7,922.6	71.6	326.4	71.6	10.79	10.65	-1.94
8,094.0	71.90	92.10	7,933.5	70.6	356.5	70.6	11.93	11.88	1.25
8,126.0	75.70	92.60	7,942.5	69.4	387.1	69.4	11.97	11.88	1.56
8,157.0	79.10	92.30	7,949.2	68.1	417.4	68.1	11.01	10.97	-0.97
8,184.0	82.30	92.30	7,953.6	67.0	444.0	67.0	11.85	11.85	0.00
8,259.0	87.80	91.70	7,960.0	64.4	518.6	64.4	7.38	7.33	-0.80
8,291.0	87.60	90.90	7,961.3	63.7	550.6	63.7	2.57	-0.63	-2.50
8,323.0	87.50	90.60	7,962.7	63.3	582.6	63.3	0.99	-0.31	-0.94
8,354.0	87.70	90.20	7,964.0	63.0	613.5	63.0	1.44	0.65	-1.29
8,386.0	87.60	89.90	7,965.3	63.0	645.5	63.0	0.99	-0.31	-0.94
8,417.0	87.70	89.70	7,966.6	63.1	676.5	63.1	0.72	0.32	-0.65
8,449.0	88.30	90.10	7,967.7	63.2	708.5	63.2	2.25	1.88	1.25
8,480.0	88.60	90.20	7,968.5	63.1	739.5	63.1	1.02	0.97	0.32
8,512.0	88.80	90.00	7,969.3	63.0	771.4	63.0	0.88	0.63	-0.63
8,544.0	88.90	89.70	7,969.9	63.1	803.4	63.1	0.99	0.31	-0.94
8,575.0	89.20	89.30	7,970.4	63.4	834.4	63.4	1.61	0.97	-1.29
8,606.0	88.80	90.50	7,971.0	63.4	865.4	63.4	4.08	-1.29	3.87
8,638.0	89.00	90.40	7,971.6	63.2	897.4	63.2	0.70	0.63	-0.31
8,670.0	88.50	90.90	7,972.3	62.8	929.4	62.8	2.21	-1.56	1.56
8,701.0	89.10	91.80	7,972.9	62.1	960.4	62.1	3.49	1.94	2.90
8,733.0	88.40	93.30	7,973.6	60.7	992.4	60.7	5.17	-2.19	4.69
8,764.0	88.10	93.30	7,974.6	58.9	1,023.3	58.9	0.97	-0.97	0.00
8,796.0	86.70	92.60	7,976.0	57.3	1,055.2	57.3	4.89	-4.38	-2.19
8,859.0	87.70	92.60	7,979.1	54.4	1,118.1	54.4	1.59	1.59	0.00
8,923.0	88.50	92.60	7,981.2	51.5	1,182.0	51.5	1.25	1.25	0.00
8,986.0	87.20	92.30	7,983.6	48.8	1,244.9	48.8	2.12	-2.06	-0.48
9,049.0	86.90	92.30	7,986.8	46.3	1,307.7	46.3	0.48	-0.48	0.00
9,112.0	87.20	92.00	7,990.1	43.9	1,370.6	43.9	0.67	0.48	-0.48

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 2 EH State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Site:	Sec 2-T19S-R29E	MD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Well:	Zircon 2 EH State Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Measured			Vertical			Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)				
9,176.0	87.30	91.60	7,993.1	41.9	1,434.5	41.9	0.64	0.16	-0.63
9,239.0	87.70	92.90	7,995.9	39.4	1,497.4	39.4	2.16	0.63	2.06
9,302.0	87.80	91.90	7,998.4	36.8	1,560.3	36.8	1.59	0.16	-1.59
9,365.0	87.70	91.80	8,000.8	34.8	1,623.2	34.8	0.22	-0.16	-0.16
9,429.0	88.50	91.00	8,003.0	33.2	1,687.2	33.2	1.77	1.25	-1.25
9,492.0	88.00	89.10	8,004.9	33.2	1,750.1	33.2	3.12	-0.79	-3.02
9,555.0	89.40	88.70	8,006.3	34.4	1,813.1	34.4	2.31	2.22	-0.63
9,617.0	89.30	88.30	8,007.0	36.0	1,875.1	36.0	0.66	-0.16	-0.65
9,681.0	89.20	88.70	8,007.8	37.7	1,939.0	37.7	0.64	-0.16	0.63
9,744.0	89.60	88.70	8,008.5	39.1	2,002.0	39.1	0.63	0.63	0.00
9,807.0	89.40	88.00	8,009.1	40.9	2,065.0	40.9	1.16	-0.32	-1.11
9,870.0	88.50	87.90	8,010.2	43.2	2,127.9	43.2	1.44	-1.43	-0.16
9,933.0	88.00	88.60	8,012.1	45.1	2,190.9	45.1	1.37	-0.79	1.11
9,996.0	86.70	89.80	8,015.0	46.0	2,253.8	46.0	2.81	-2.06	1.90
10,059.0	86.50	90.50	8,018.8	45.8	2,316.7	45.8	1.15	-0.32	1.11
10,122.0	87.50	90.80	8,022.1	45.1	2,379.6	45.1	1.66	1.59	0.48
10,186.0	88.90	91.10	8,024.1	44.0	2,443.6	44.0	2.24	2.19	0.47
10,249.0	89.30	91.20	8,025.1	42.8	2,506.5	42.8	0.65	0.63	0.16
10,313.0	89.00	90.20	8,026.0	42.0	2,570.5	42.0	1.63	-0.47	-1.56
10,376.0	89.80	90.90	8,026.7	41.4	2,633.5	41.4	1.69	1.27	1.11
10,439.0	89.60	92.40	8,027.0	39.6	2,696.5	39.6	2.40	-0.32	2.38
10,503.0	89.20	91.40	8,027.7	37.4	2,760.4	37.4	1.68	-0.63	-1.56
10,566.0	89.10	90.00	8,028.6	36.7	2,823.4	36.7	2.23	-0.16	-2.22
10,598.0	89.20	89.50	8,029.1	36.8	2,855.4	36.8	1.59	0.31	-1.56
10,630.0	89.00	90.90	8,029.6	36.7	2,887.4	36.7	4.42	-0.63	4.38
10,662.0	87.50	91.20	8,030.6	36.1	2,919.4	36.1	4.78	-4.69	0.94
10,693.0	87.40	92.30	8,032.0	35.2	2,950.4	35.2	3.56	-0.32	3.55
10,725.0	87.40	92.60	8,033.4	33.8	2,982.3	33.8	0.94	0.00	0.94
10,756.0	88.10	93.20	8,034.6	32.2	3,013.2	32.2	2.97	2.26	1.94
10,820.0	87.80	92.30	8,036.9	29.2	3,077.1	29.2	1.48	-0.47	-1.41
10,883.0	88.00	93.10	8,039.2	26.2	3,140.0	26.2	1.31	0.32	1.27
10,947.0	87.60	92.80	8,041.7	22.9	3,203.9	22.9	0.78	-0.63	-0.47
11,010.0	87.90	91.80	8,044.2	20.4	3,266.8	20.4	1.66	0.48	-1.59
11,074.0	88.10	92.20	8,046.4	18.1	3,330.7	18.1	0.70	0.31	0.63
11,136.0	88.30	91.70	8,048.3	16.0	3,392.6	16.0	0.87	0.32	-0.81
11,200.0	89.00	91.80	8,049.8	14.1	3,456.6	14.1	1.10	1.09	0.16
11,264.0	90.20	90.90	8,050.3	12.6	3,520.6	12.6	2.34	1.88	-1.41
11,327.0	90.50	90.70	8,049.9	11.7	3,583.6	11.7	0.57	0.48	-0.32
11,390.0	90.20	90.80	8,049.5	10.9	3,646.5	10.9	0.50	-0.48	0.16
11,453.0	89.90	91.60	8,049.5	9.6	3,709.5	9.6	1.36	-0.48	1.27
11,517.0	88.50	92.60	8,050.4	7.2	3,773.5	7.2	2.69	-2.19	1.56
11,580.0	88.30	92.30	8,052.1	4.5	3,836.4	4.5	0.57	-0.32	-0.48
11,643.0	87.90	90.70	8,054.2	2.9	3,899.3	2.9	2.62	-0.63	-2.54
11,706.0	88.50	90.40	8,056.2	2.3	3,962.3	2.3	1.06	0.95	-0.48

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Zircon 2 EH State Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Site:	Sec 2-T19S-R29E	MD Reference:	WELL @ 3423.0usft (Patterson UTI #46)
Well:	Zircon 2 EH State Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

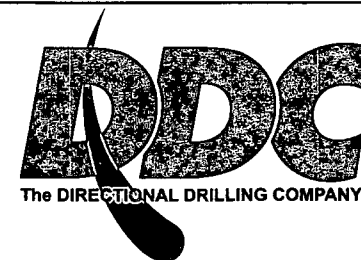
Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,770.0	88.30	89.60	8,058.0	2.3	4,026.3	2.3	1.29	-0.31	-1.25
11,834.0	88.10	88.40	8,060.0	3.4	4,090.2	3.4	1.90	-0.31	-1.88
11,897.0	88.10	88.90	8,062.1	4.9	4,153.2	4.9	0.79	0.00	0.79
11,960.0	87.50	88.20	8,064.5	6.5	4,216.1	6.5	1.46	-0.95	-1.11
12,024.0	87.50	88.60	8,067.3	8.2	4,280.0	8.2	0.62	0.00	0.63
12,087.0	88.80	88.80	8,069.3	9.7	4,343.0	9.7	2.09	2.06	0.32
12,151.0	88.80	88.20	8,070.7	11.3	4,406.9	11.3	0.94	0.00	-0.94
12,214.0	88.90	87.30	8,071.9	13.8	4,469.9	13.8	1.44	0.16	-1.43
12,278.0	88.90	86.40	8,073.2	17.3	4,533.8	17.3	1.41	0.00	-1.41
12,341.0	88.40	85.50	8,074.6	21.8	4,596.6	21.8	1.63	-0.79	-1.43
12,405.0	88.30	85.10	8,076.5	27.0	4,660.4	27.0	0.64	-0.16	-0.63
12,468.0	88.60	84.60	8,078.2	32.7	4,723.1	32.7	0.93	0.48	-0.79
TD @ 12520' MD / 8080' TVD									
12,520.0	88.60	84.60	8,079.5	37.6	4,774.8	37.6	0.00	0.00	0.00

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,200.0	7,198.8	69.7	-7.5	TIE IN @ 7200' MD / 7199' TVD
7,859.3	7,814.6	77.6	156.3	CROSSED HARD LINE @ 7859' MD / 7815' TVD
12,520.0	8,079.5	37.6	4,774.8	TD @ 12520' MD / 8080' TVD

Checked By: _____	Approved By: _____	Date: _____
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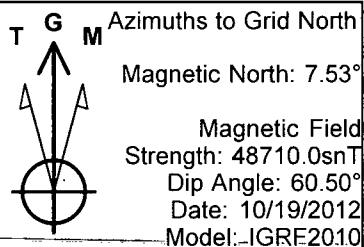
Company Name: Mewbourne Oil Co
Zircon 2 EH State Com #1H
Eddy County, New Mexico
Rig: Patterson UTI #46
Created By: Dina Chance
Date: 11/2/2012

Zircon 2 EH State Com #1H
Eddy County, New Mexico
Q120598 & WT-12785
Design #2



Mewbourne Oil Company

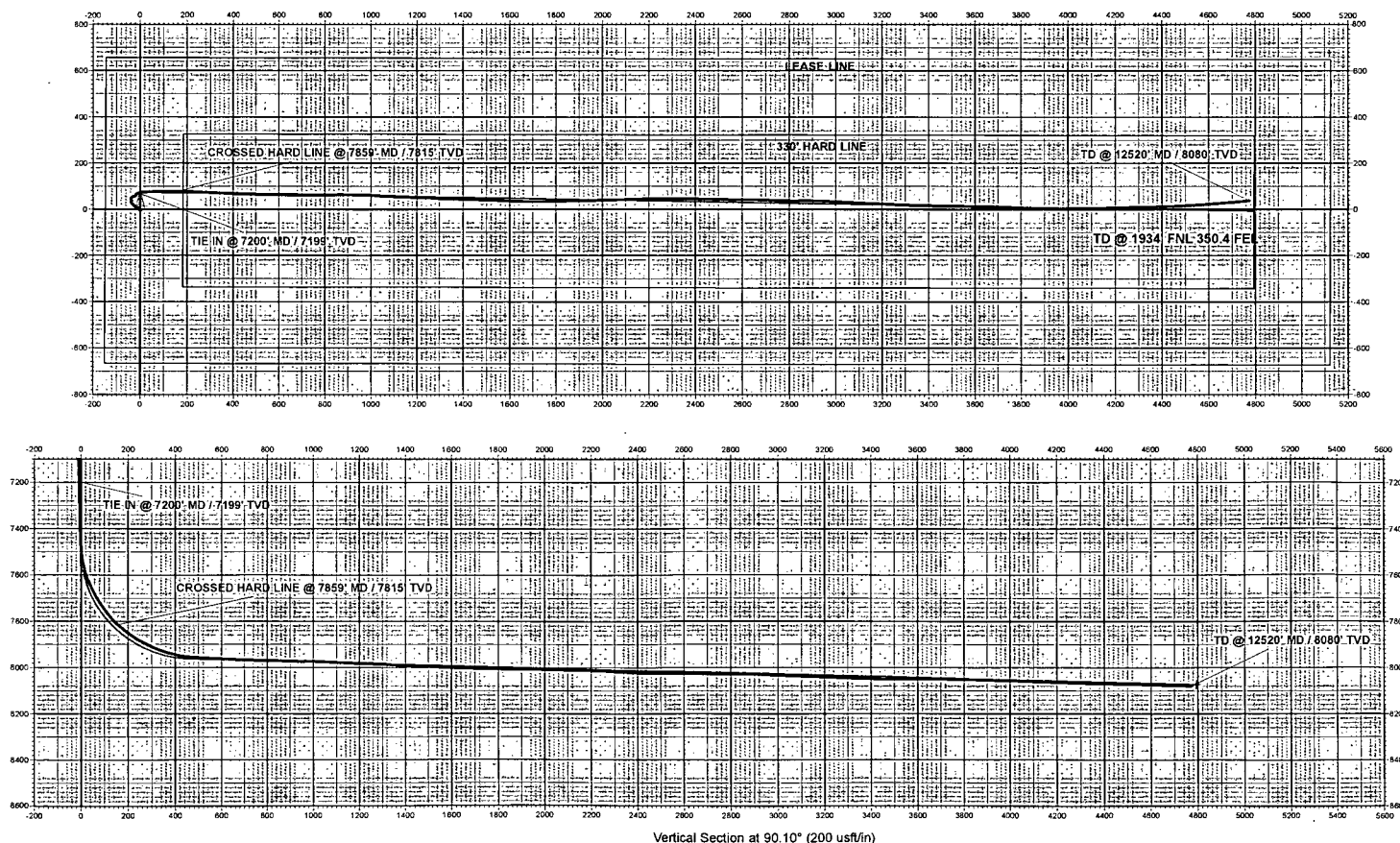
PROJECT DETAILS: Eddy County, New Mexico
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level



WELL DETAILS: Zircon 2 EH State Com #1H				
	Ground Level:	3493.0		
+N/-S	+E/-W	Northing	Easting	Latitude
0.0	0.0	615349.41	586232.29	32° 41' 28.972 N
				104° 3' 10.532 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude
PBHL Zircon 2 EH State Com #1H	8073.0	-8.1	4794.1	615341.27	591028.59	32° 41' 28.763 N
- plan hits target center						

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation	
7200.0	1.30	72.00	7198.8	69.7	-7.5	69.7	124.6	TIE IN @ 7200' MD / 7199' TVD	
7859.3	46.58	89.56	7814.5	77.6	156.3	77.6	289.4	CROSSED HARD LINE @ 7859' MD / 7815' TVD	
12520.0	18.60	84.50	8079.5	37.6	4774.8	37.6	4910.7	TD @ 12520' MD / 8080' TVD	



Vertical Section at 90.10° (200 usft/in)

Operating Company Mewbourne
Well Name & Number Zircon 2 EH state 1H
Sales Ticket Number 5051284
Date 11/1/2012

Company Rep Lynn Simmons
Field Santo Nino
BOT Service Rep Armando Gonzalez
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	P-110	6.276	6.151		0.03826	8,236.00	9,960	6,230
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,475.86	12,410	10,680
Bott Liner										

TVD	8,074.00	KOP	7,495.00	Open Hole	6.125	Casing Vol. (bbl)	306.6
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Carry Fluid Weight (ppg)	8.4	Propan Content (ppa)		Max Drill Out Size	0
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	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	8014.14							

Zone Length										
20 220.1	H409400008	JR Sleeve_S3 Hyd Set Packer	8014.14	8.63	5.813	3.875				
		4-1/2-13.5 LTC Nipple	8022.77	8.11	5.000	3.920				
		8 Joints of 4-1/2-13.5 LTC Casing	8030.88	305.73	5.000	3.920				
19 199.9	H809870074	3.625 Frac Sleeve	8336.61	3.90	5.750		3.525	2286	310	307
		3 Joints of 4-1/2-13.5 LTC Casing	8340.51	115.55	5.000	3.920				
	H409360009	Baker Open Hole Packer	8456.06	3.89	5.820	3.875		2154		
18 237.9		3 Joints of 4-1/2-13.5 LTC Casing	8459.95	114.65	5.000	3.920				
	H809870073	3.500 Frac Sleeve	8574.60	3.90	5.750		3.400	2286	289	307
		2 Joints of 4-1/2-13.5 LTC Casing	8578.50	77.41	5.000	3.920				
17 199.4	H409360009	Baker Open Hole Packer	8655.91	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8659.80	115.76	5.000	3.920				
	H809870072	3.375 Frac Sleeve	8775.56	3.90	5.750		3.275	2286	268	307
16 238.5		3 Joints of 4-1/2-13.5 LTC Casing	8779.46	114.31	5.000	3.920				
	H409360009	Baker Open Hole Packer	8893.77	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	8897.66	114.94	5.000	3.920				
	H809870070	3.250 Frac Sleeve	9012.60	3.90	5.750		3.150	2286	248	307
		2 Joints of 4-1/2-13.5 LTC Casing	9016.50	76.63	5.000	3.920				
	H409360009	Baker Open Hole Packer	9093.13	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9097.02	115.64	5.000	3.920				
	H809870069	3.125 Frac Sleeve	9212.66	3.90	5.750		3.025	2286	228	307
		3 Joints of 4-1/2-13.5 LTC Casing	9216.56	115.09	5.000	3.920				
	H409360009	Baker Open Hole Packer	9331.65	3.89	5.820	3.875		2154		

Operating Company Mewbourne
Well Name & Number Zircon 2 EH state 1H
Sales Ticket Number 5051284
Date 11/1/2012

Company Rep Lynn Simmons
Field Santo Nino
BOT Service Rep Armando Gonzalez
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	P-110	6.276	6.151		0.03826	8,236.00	9,960	6,230	
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,475.86	12,410	10,680	
Bott Liner											
TVD		8,074.00		KOP		7,495.00		Open Hole	6.125	Casing Vol. (bbl)	306.6
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)
15 197.5		3 Joints of 4-1/2-13.5 LTC Casing	9335.54	114.00	5.000	3.920				
	H809870068	3.000 Frac Sleeve	9449.54	3.90	5.750		2.900	2286	210	307
		2 Joints of 4-1/2-13.5 LTC Casing	9453.44	75.70	5.000	3.920				
14 238.3	H409360009	Baker Open Hole Packer	9529.14	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9533.03	115.09	5.000	3.920				
	H809870067	2.875 Frac Sleeve	9648.12	3.90	5.750		2.775	2286	192	307
13 200.5		3 Joints of 4-1/2-13.5 LTC Casing	9652.02	115.44	5.000	3.920				
	H409360009	Baker Open Hole Packer	9767.46	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	9771.35	114.95	5.000	3.920				
12 237.3	H809870066	2.750 Frac Sleeve	9886.30	3.90	5.750		2.650	2286	175	307
		2 Joints of 4-1/2-13.5 LTC Casing	9890.20	77.72	5.000	3.920				
	H409360009	Baker Open Hole Packer	9967.92	3.89	5.820	3.875		2154		
11 197.4		3 Joints of 4-1/2-13.5 LTC Casing	9971.81	113.87	5.000	3.920				
	H809870065	2.625 Frac Sleeve	10085.68	3.90	5.750		2.525	2286	159	307
		3 Joints of 4-1/2-13.5 LTC Casing	10089.58	115.62	5.000	3.920				
10 237.2	H409360009	Baker Open Hole Packer	10205.20	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10209.09	112.92	5.000	3.920				
	H809870063	2.500 Frac sleeve	10322.01	3.90	5.750		2.400	2286	144	307
9		2 Joints of 4-1/2-13.5 LTC Casing	10325.91	76.73	5.000	3.920				
	H409360009	Baker Open Hole Packer	10402.64	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10406.53	114.90	5.000	3.920				
	H809870054	2.375 Frac Sleeve	10521.43	3.90	5.750		2.275	2286	129	307
		3 Joints of 4-1/2-13.5 LTC Casing	10525.33	114.48	5.000	3.920				
	H409360009	Baker Open Hole Packer	10639.81	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10643.70	113.50	5.000	3.920				
	H809870047	2.250 Frac Sleeve	10757.20	3.90	5.750		2.150	2286	115	307

Operating Company Mewbourne
Well Name & Number Zircon 2 EH state 1H
Sales Ticket Number 5051284
Date 11/1/2012

Company Rep Lynn Simmons
Field Santo Nino
BOT Service Rep Armando Gonzalez
District Location Odessa, Texas, USA



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	P-110	6.276	6.151		0.03826	8,236.00	9,960	6,230	
Top Liner	4.500	13.50	338000	3.920	3.795	LT&C	0.01492	4,475.86	12,410	10,680	
Bott Liner											
TVD		8,074.00		KOP		7,495.00		Open Hole	6.125	Casing Vol. (bbl)	306.6
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)				Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press	Max Rate (BPM)	Displ. (BBL)
236		2 Joints of 4-1/2-13.5 LTC Casing	10761.10	114.74	5.000	3.920				
	H409360009	Baker Open Hole Packer	10875.84	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	10879.73	114.34	5.000	3.920				
8	H809870042	2.125 Frac Sleeve	10994.07	3.90	5.750		2.025	2286	102	307
196.8		2 Joints of 4-1/2-13.5 LTC Casing	10997.97	74.62	5.000	3.920				
	H409360009	Baker Open Hole Packer	11072.59	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11076.48	114.46	5.000	3.920				
7	H809870088	2.000 Frac Sleeve	11190.94	3.90	5.750		1.900	2286	90	307
238.1		3 Joints of 4-1/2-13.5 LTC Casing	11194.84	115.85	5.000	3.920				
	H409360009	Baker Open Hole Packer	11310.69	3.89	5.820	3.875		2154		
		2 Joints of 4-1/2-13.5 LTC Casing	11314.58	76.87	5.000	3.920				
6	H809870087	1.875 Frac Sleeve	11391.45	3.90	5.750		1.775	2286	79	307
198.6		3 Joints of 4-1/2-13.5 LTC Casing	11395.35	113.90	5.000	3.920				
	H409360009	Baker Open Hole Packer	11509.25	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11513.14	109.84	5.000	3.920				
5	H809870086	1.750 Frac Sleeve	11622.98	3.90	5.750		1.650	2286	68	307
191.6		2 Joint of 4-1/2-13.5 LTC Casing	11626.88	73.92	5.000	3.920				
	H409360009	Baker Open Hole Packer	11700.80	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11704.69	114.71	5.000	3.920				
4	H809870085	1.625 Frac Sleeve	11819.40	3.90	5.750		1.525	2286	58	307
235.6		3 Joints of 4-1/2-13.5 LTC Casing	11823.30	113.09	5.000	3.920				
	H409360009	Baker Open Hole Packer	11936.39	3.89	5.820	3.875		2154		
		3 Joints of 4-1/2-13.5 LTC Casing	11940.28	115.32	5.000	3.920				
3	H809160007	1.500 DB Frac Sleeve	12055.60	3.90	5.750		1.400	2286	49	307
237.6		3 Joints of 4-1/2-13.5 LTC Casing	12059.50	114.51	5.000	3.920				
	H409360009	Baker Open Hole Packer	12174.01	3.89	5.820	3.875		2154		

[illegible]