

NM OIL CONSERVATION

ARTESIA DISTRICT

**OPERATOR
WELL/LEASE
COUNTY**MEWBOURNE OIL COMPANY
Bradley 31 B2DA FED COM 1H
Eddy

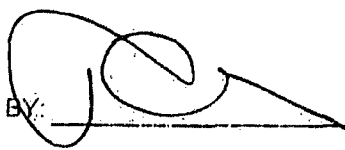
JAN 13 2015

160-0004

RECEIVED

**STATE OF NEW MEXICO
DEVIATION REPORT**300540562

500	1.00
1,000	1.50
1,328	1.90
1,706	0.80
2,093	0.50
2,569	0.60
3,044	0.70
3,520	0.70
3,895	1.00
4,088	3.10
4,183	2.30
4,278	3.00
4,564	3.00
4,659	2.10
4,788	2.20
4,849	2.30
4,944	2.10
5,009	2.30
5,328	2.30
5,138	2.10
5,233	2.20
5,328	2.10
5,423	1.30
5,612	2.00
5,711	2.70
5,901	1.90

BY: 

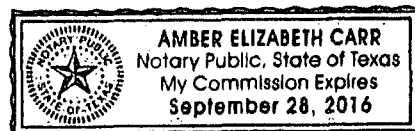
STATE OF TEXAS

COUNTY OF MIDLAND

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

8/19/14 , by

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





COMPANY: Mawbourne Oil Company.
WELL: Bradley 31 B2DA Fed Com #1H
COUNTY: Eddy County, New Mexico
DATUM: NAD 1927 (NADCON CONUS)
RIG: Rig 160



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.28°

OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico East 3001
3452 + 30 @ 3482.0usft (Rig 160)
GROUND ELEVATION: 3452.0

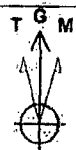
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	622398.10	596876.90	32° 42' 38.427 N	104° 1' 6.129 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	VSeet	Target
1	7280.0	2.04	68.26	7275.8	146.8	-64.3	0.00	0.00	-88.6	
2	7345.0	2.04	68.26	7340.8	147.7	-62.1	0.00	0.00	-86.6	
3	7731.5	45.91	170.51	7687.5	5.5	-31.1	12.00	104.16	-31.6	
4	8048.7	45.91	170.51	7908.2	-219.2	6.4	0.00	0.00	44.1	
5	8714.2	69.18	93.87	8192.0	-529.4	452.5	12.00	-81.20	537.0	LP Bradley 31 B2DA Fed Com #1H
6	12917.3	69.18	93.87	8252.0	-813.4	4645.5	0.00	0.00	4716.2	PBHL Bradley 31 B2DA Fed Com #1H

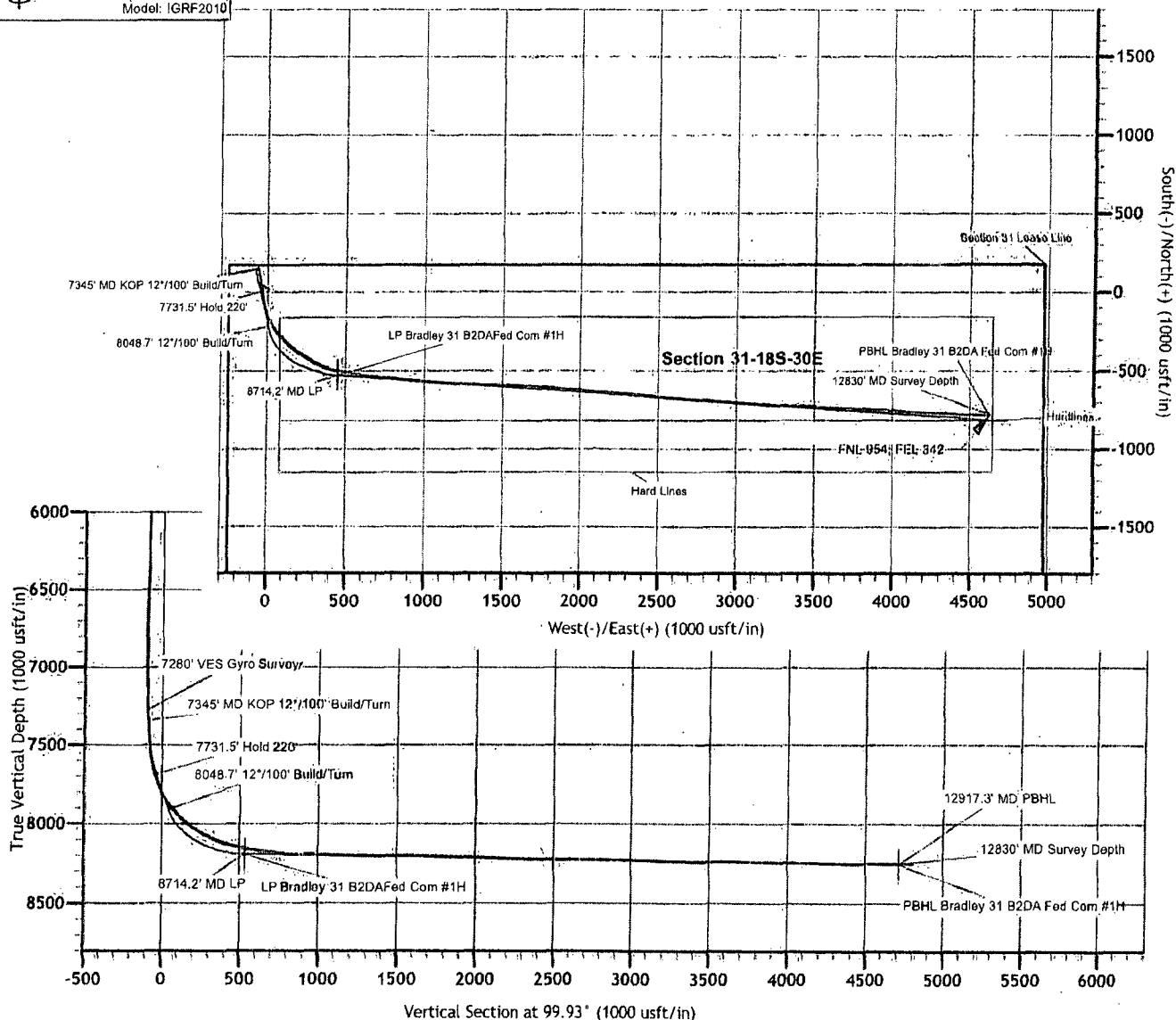
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP Bradley 31 B2DA Fed Com #1H	8192.0	-529.4	462.5	621868.70	597329.4032° 42'	33.175 N 104° 1'	0.851 W	Point
- plan hits target center								
PBHL Bradley 31 B2DA Fed Com #1H	8252.0	-813.4	4645.5	621584.74	601522.4032° 42'	30.238 N 104° 0'	11.787 W	Point
- plan hits target center								



Azimuths to Grid North
True North: -0.17°
Magnetic North: 7.28°

Magnetic Field
Strength: 48551.4anT
Dip Angle: 60.48°
Date: 7/15/2014
Model: IGRF2010



NM OIL CONSERVATION

ARTESIA DISTRICT

JAN 13 2015

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Mewbourne Oil Company .

Eddy County, New Mexico

Section 31-18S-30E Bradley 31 B2DA Fed Com #1H

Bradley 31 B2DA Fed Com #1H

Original Hole

Design: Original Hole

Standard Survey Report

11 August, 2014





Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Bradley 31 B2DA Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31-18S-30E, Bradley 31 B2DA Fed Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker EDM

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		

Section 31-18S-30E, Bradley 31 B2DA Fed Com #1H					
Site Position:		Northing:	622,398.10 usft	Latitude:	32° 42' 38.427 N
From:	Map	Easting:	596,876.90 usft	Longitude:	104° 1' 6.129 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

Well	Bradley 31 B2DA Fed Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	622,398.10 usft	Latitude:	32° 42' 38.427 N
	+E/-W	0.0 usft	Easting:	596,876.90 usft	Longitude:	104° 1' 6.129 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	3,452.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (mT)
	IGRF2010	7/15/2014	7.45	60.48	48,551

Design:	Original Hole			
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	99.93

Survey Program		Date: 8/11/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,280.0	VES Gyro Survey (Original Hole)	SRG-GYRO-MS	surface readout gyro multishot
7,355.0	12,830.0	Stryker MWD Survey (Original Hole)	MWD	MWD v3: standard declination

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	0.43	284.73	100.0	0.1	-0.4	-0.4	0.43	0.43	0.00
200.0	0.56	316.15	200.0	0.5	-1.1	-1.1	0.30	0.13	31.42
300.0	0.42	319.41	300.0	1.2	-1.6	-1.8	0.14	-0.14	3.26
400.0	0.52	288.83	400.0	1.6	-2.3	-2.6	0.27	0.10	-30.58
500.0	0.57	283.05	500.0	1.9	-3.2	-3.5	0.07	0.05	-5.78
600.0	0.52	304.16	600.0	2.2	-4.1	-4.4	0.21	-0.05	21.11
700.0	0.63	330.97	700.0	3.0	-4.7	-5.2	0.29	0.11	26.81
800.0	0.69	342.81	800.0	4.0	-5.2	-5.8	0.15	0.06	11.84



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Bradley 31 B2DA Fed.Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31-18S-30E, Bradley 31 B2DA Fed.Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed.Com #1H	North Reference:	Grid
Wallbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
900.0	0.69	28.75	900.0	5.1	-5.1	-5.9	0.54	0.00	45.94
1,000.0	1.32	47.46	999.9	6.4	-3.9	-5.0	0.70	0.63	18.71
1,100.0	2.10	64.08	1,099.9	8.0	-1.4	-2.8	0.92	0.78	16.62
1,200.0	2.22	64.41	1,199.8	9.6	2.0	0.3	0.12	0.12	0.33
1,300.0	2.07	61.40	1,299.8	11.3	5.3	3.3	0.19	-0.15	-3.01
1,400.0	1.48	57.59	1,399.7	12.9	8.0	5.6	0.60	-0.59	-3.81
1,500.0	0.90	39.05	1,499.7	14.2	9.6	7.0	0.69	-0.58	-18.54
1,600.0	0.70	22.39	1,599.7	15.4	10.3	7.5	0.30	-0.20	-16.66
1,700.0	0.59	339.62	1,699.7	16.4	10.3	7.4	0.48	-0.11	-42.77
1,800.0	0.55	327.69	1,799.7	17.3	9.9	6.8	0.12	-0.04	-11.93
1,900.0	0.61	327.48	1,899.7	18.2	9.4	6.1	0.06	0.06	-0.21
2,000.0	0.76	323.25	1,999.7	19.1	8.7	5.3	0.16	0.15	-4.23
2,100.0	0.66	313.21	2,099.6	20.1	7.9	4.3	0.16	-0.10	-10.04
2,200.0	0.62	313.56	2,199.6	20.8	7.1	3.4	0.04	-0.04	0.35
2,300.0	0.77	315.58	2,299.6	21.7	6.2	2.4	0.15	0.15	2.02
2,400.0	0.79	305.24	2,399.6	22.6	5.2	1.2	0.14	0.02	-10.34
2,500.0	0.73	301.44	2,499.6	23.3	4.1	0.0	0.08	-0.06	-3.80
2,600.0	0.73	290.67	2,599.6	23.9	2.9	-1.2	0.14	0.00	-10.77
2,700.0	0.72	285.75	2,699.6	24.3	1.7	-2.5	0.06	-0.01	-4.92
2,800.0	0.62	280.08	2,799.6	24.5	0.6	-3.7	0.12	-0.10	-5.67
2,900.0	0.75	291.56	2,899.6	24.9	-0.6	-4.8	0.19	0.13	11.48
3,000.0	0.66	288.46	2,999.6	25.3	-1.7	-6.1	0.10	-0.09	-3.10
3,100.0	0.68	282.35	3,099.6	25.6	-2.8	-7.2	0.07	0.02	-6.11
3,200.0	0.89	286.14	3,199.6	25.9	-4.2	-8.6	0.22	0.21	3.79
3,300.0	0.80	284.89	3,299.6	26.3	-5.6	-10.0	0.09	-0.09	-1.25
3,400.0	0.54	307.61	3,399.5	26.8	-6.6	-11.2	0.37	-0.26	22.72
3,500.0	0.57	293.19	3,499.5	27.3	-7.5	-12.1	0.14	0.03	-14.42
3,600.0	0.59	304.62	3,599.5	27.8	-8.4	-13.0	0.12	0.02	11.43
3,700.0	0.61	295.77	3,699.5	28.3	-9.3	-14.0	0.09	0.02	-8.85
3,800.0	0.67	310.82	3,799.5	28.9	-10.2	-15.0	0.18	0.06	15.05
3,900.0	0.91	307.18	3,899.5	29.8	-11.3	-16.2	0.25	0.24	-3.64
4,000.0	1.33	306.74	3,999.5	30.9	-12.8	-18.0	0.42	0.42	-0.44
4,100.0	2.68	315.41	4,099.4	33.3	-15.4	-20.9	1.38	1.35	8.67
4,200.0	2.54	306.83	4,199.3	36.3	-18.8	-24.8	0.41	-0.14	-8.58
4,300.0	2.73	306.30	4,299.2	39.0	-22.5	-28.9	0.19	0.19	-0.53
4,400.0	2.71	303.37	4,399.1	41.7	-26.4	-33.2	0.14	-0.02	-2.93
4,500.0	3.02	293.61	4,499.0	44.1	-30.8	-37.9	0.58	0.31	-9.76
4,600.0	3.12	294.07	4,598.8	46.3	-35.7	-43.1	0.10	0.10	0.46
4,700.0	2.39	299.55	4,698.7	48.4	-40.0	-47.7	0.78	-0.73	5.48
4,800.0	2.13	296.71	4,798.6	50.3	-43.4	-51.5	0.28	-0.26	-2.84
4,900.0	2.04	301.99	4,898.6	52.0	-46.6	-54.9	0.21	-0.09	5.28
5,000.0	2.10	299.62	4,998.5	53.9	-49.7	-58.3	0.10	0.06	-2.37



Stryker Directional Survey Report



Company:	Mawbourne Oil Company	Local Co-ordinate Reference:	Well Bradley 31 B2DA Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31 18S 30E Bradley 31 B2DA Fed Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker EDM

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)	
5,100.0	1.82	292.85	5,098.5	55.4	-52.8	-61.5	0.36	-0.28	-6.77	
5,200.0	1.81	307.01	5,198.4	57.0	-55.5	-64.5	0.45	-0.01	14.16	
5,300.0	1.71	312.83	5,298.4	58.9	-57.9	-67.2	0.20	-0.10	5.82	
5,400.0	1.73	305.87	5,398.3	60.8	-60.2	-69.8	0.21	0.02	-6.96	
5,500.0	1.95	315.06	5,498.3	62.9	-62.6	-72.5	0.37	0.22	9.19	
5,600.0	2.32	329.21	5,598.2	65.9	-64.8	-75.2	0.64	0.37	14.15	
5,700.0	2.35	334.00	5,698.1	69.5	-66.8	-77.7	0.20	0.03	4.79	
5,800.0	2.41	341.47	5,798.0	73.3	-68.3	-80.0	0.32	0.06	7.47	
5,900.0	2.46	338.40	5,897.9	77.3	-69.8	-82.1	0.14	0.05	-3.07	
6,000.0	2.30	349.64	5,997.9	81.2	-70.9	-83.9	0.49	-0.16	11.24	
6,100.0	2.76	0.99	6,097.8	85.6	-71.3	-85.0	0.68	0.46	11.35	
6,200.0	2.89	8.81	6,197.6	90.5	-70.8	-85.4	0.41	0.13	7.82	
6,300.0	3.44	357.67	6,297.5	96.0	-70.6	-86.1	0.82	0.55	-11.14	
6,400.0	4.25	349.78	6,397.3	102.7	-71.4	-88.0	0.97	0.81	-7.89	
6,500.0	4.01	340.33	6,497.0	109.6	-73.2	-91.0	0.72	-0.24	-9.45	
6,600.0	2.74	337.45	6,596.8	115.1	-75.3	-94.0	1.28	-1.27	-2.88	
6,700.0	2.57	342.69	6,696.7	119.4	-76.9	-96.3	0.30	-0.17	5.24	
6,800.0	3.69	3.33	6,796.6	124.8	-77.3	-97.7	1.57	1.12	20.64	
6,900.0	3.50	16.54	6,896.4	130.9	-76.3	-97.7	0.85	-0.19	13.21	
7,000.0	3.90	30.18	6,996.2	136.8	-73.7	-96.2	0.96	0.40	13.64	
7,100.0	3.12	39.78	7,096.0	141.8	-70.3	-93.7	0.97	-0.78	9.60	
7,200.0	2.39	51.43	7,195.9	145.2	-66.9	-90.9	0.92	-0.73	11.65	
7,280.0	2.04	68.26	7,275.8	146.8	-64.3	-88.6	0.92	-0.44	21.04	
7280 VES Gyro Survey										
7,355.0	1.80	148.70	7,350.8	146.3	-62.4	-86.7	3.31	-0.32	107.25	
7,387.0	5.60	171.80	7,382.7	144.3	-61.9	-85.9	12.52	11.88	72.19	
7,419.0	10.20	175.10	7,414.4	139.9	-61.5	-84.7	14.44	14.38	10.31	
7,451.0	14.50	174.70	7,445.6	133.1	-60.8	-82.9	13.44	13.44	-1.25	
7,482.0	18.50	174.80	7,475.4	124.4	-60.0	-80.6	12.90	12.90	0.32	
7,514.0	23.30	175.20	7,505.2	113.0	-59.1	-77.7	15.01	15.00	1.25	
7,546.0	25.80	176.10	7,534.4	99.7	-58.0	-74.4	7.90	7.81	2.81	
7,577.0	26.90	174.60	7,562.1	86.0	-56.9	-70.9	4.15	3.55	-4.84	
7,609.0	30.50	174.80	7,590.2	70.7	-55.5	-66.9	11.25	11.25	0.63	
7,641.0	33.30	170.60	7,617.4	54.0	-53.3	-61.8	11.16	8.75	-13.13	
7,673.0	35.60	167.50	7,643.7	36.2	-49.9	-55.4	9.04	7.19	-9.69	
7,704.0	37.80	166.30	7,668.6	18.2	-45.7	-48.1	7.46	7.10	-3.87	
7,736.0	40.00	165.70	7,693.5	-1.3	-40.8	-40.0	6.98	6.88	-1.88	
7,768.0	41.60	166.40	7,717.7	-21.6	-35.8	-31.5	5.20	5.00	2.19	
7,800.0	42.60	167.20	7,741.5	-42.5	-30.9	-23.1	3.55	3.13	2.50	
7,832.0	44.20	167.40	7,764.7	-64.0	-26.1	-14.6	5.02	5.00	0.63	
7,863.0	46.90	166.80	7,786.4	-85.5	-21.1	-6.0	8.82	8.71	-1.94	
7,895.0	48.40	164.80	7,808.0	-108.5	-15.3	3.6	6.58	4.69	-6.25	
7,927.0	48.70	160.60	7,829.2	-131.3	-8.2	14.6	9.88	0.94	-13.13	



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well: Bradley 31 B2DA Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31-18S-30E, Bradley 31 B2DA Fed Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker EDM

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)
7,959.0	49.70	157.10	7,850.1	-153.9	0.6	27.1	8.85	3.13	-10.94
7,990.0	50.20	153.30	7,870.0	-175.5	10.5	40.6	9.52	1.61	-12.26
8,022.0	50.90	149.90	7,890.4	-197.2	22.3	55.9	8.49	2.19	-10.63
8,054.0	51.30	146.50	7,910.5	-218.4	35.4	72.5	8.36	1.25	-10.63
8,086.0	52.40	143.60	7,930.2	-239.0	49.8	90.3	7.91	3.44	-9.06
8,117.0	54.00	141.20	7,948.8	-258.6	65.0	108.6	8.07	5.16	-7.74
8,149.0	54.70	139.00	7,967.5	-278.6	81.6	128.5	6.00	2.19	-6.88
8,181.0	55.40	136.40	7,985.8	-298.0	99.3	149.2	7.01	2.19	-8.13
8,212.0	56.20	133.80	8,003.2	-316.1	117.4	170.1	7.40	2.58	-8.39
8,244.0	57.10	131.70	8,020.8	-334.3	137.0	192.6	6.16	2.81	-6.56
8,276.0	59.10	128.90	8,037.7	-351.8	157.7	216.0	9.71	6.25	-8.75
8,308.0	62.50	127.80	8,053.3	-369.2	179.6	240.6	11.04	10.63	-3.44
8,339.0	64.40	126.00	8,067.2	-385.8	201.8	265.3	8.03	6.13	-5.81
8,371.0	66.00	125.20	8,080.6	-402.7	225.4	291.5	5.49	5.00	-2.50
8,403.0	68.40	123.60	8,093.0	-419.4	249.8	318.4	8.80	7.50	-5.00
8,435.0	70.20	122.10	8,104.3	-435.6	274.9	345.9	7.13	5.63	-4.69
8,466.0	72.00	119.70	8,114.4	-450.7	300.1	373.3	9.35	5.81	-7.74
8,498.0	72.70	115.50	8,124.1	-464.8	327.1	402.4	12.70	2.19	-13.13
8,530.0	73.20	112.10	8,133.5	-477.1	355.1	432.1	10.28	1.56	-10.63
8,562.0	74.30	109.00	8,142.4	-487.9	383.9	462.2	9.92	3.44	-9.69
8,593.0	76.30	107.40	8,150.3	-497.3	412.3	491.9	8.16	6.45	-5.16
8,625.0	78.50	105.50	8,157.3	-506.1	442.3	522.9	8.99	6.88	-5.94
8,646.6	79.78	103.40	8,161.3	-511.4	462.9	544.1	11.22	5.92	-9.71
LP Bradley 31 B2DA Fed Com #1H									
8,657.0	80.40	102.40	8,163.1	-513.7	472.8	554.3	11.22	5.97	-9.65
8,688.0	81.80	99.10	8,167.9	-519.4	502.9	584.9	11.45	4.52	-10.65
8,720.0	82.50	97.60	8,172.3	-524.0	534.3	616.6	5.13	2.19	-4.69
8,735.0	82.70	97.50	8,174.2	-526.0	549.0	631.5	1.49	1.33	-0.67
8,850.0	84.40	95.10	8,187.1	-538.5	662.6	745.5	2.55	1.48	-2.09
8,881.0	85.50	95.20	8,189.9	-541.3	693.3	776.3	3.56	3.55	0.32
8,912.0	86.30	95.70	8,192.1	-544.2	724.1	807.1	3.04	2.58	1.61
8,944.0	87.70	95.30	8,193.8	-547.3	755.9	839.0	4.55	4.38	-1.25
8,976.0	89.90	95.40	8,194.4	-550.2	787.8	870.9	6.88	6.88	0.31
9,039.0	90.30	95.40	8,194.3	-556.2	850.5	933.7	0.63	0.63	0.00
9,133.0	89.00	95.30	8,194.9	-564.9	944.1	1,027.4	1.39	-1.38	-0.11
9,228.0	88.10	94.30	8,197.3	-572.9	1,038.7	1,121.9	1.42	-0.95	-1.05
9,323.0	87.40	93.30	8,201.0	-579.2	1,133.4	1,216.3	1.28	-0.74	-1.05
9,419.0	89.80	92.80	8,203.4	-584.3	1,229.3	1,311.6	2.55	2.50	-0.52
9,513.0	90.20	91.50	8,203.4	-587.8	1,323.2	1,404.7	1.45	0.43	-1.38
9,609.0	90.80	91.90	8,202.5	-590.7	1,419.1	1,499.7	0.75	0.63	0.42
9,704.0	89.60	92.00	8,202.2	-593.9	1,514.1	1,593.8	1.27	-1.26	0.11
9,798.0	88.80	93.00	8,203.5	-598.0	1,608.0	1,687.0	1.36	-0.85	1.06
9,893.0	89.00	93.10	8,205.3	-603.0	1,702.8	1,781.3	0.24	0.21	0.11



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Bradley 31 B2DA Fed Com #1H
Project:	Eddy County New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31 18S 30E Bradley 31 B2DA Fed Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker EDM

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)
9,988.0	88.20	95.40	8,207.7	-610.1	1,797.5	1,875.8	2.56	-0.84	2.42
10,083.0	87.10	94.40	8,211.6	-618.2	1,892.1	1,970.4	1.56	-1.16	-1.05
10,178.0	89.00	94.00	8,214.8	-625.1	1,986.8	2,064.8	2.04	2.00	-0.42
10,273.0	87.70	93.70	8,217.5	-631.5	2,081.5	2,159.3	1.40	-1.37	-0.32
10,368.0	88.60	94.30	8,220.6	-638.1	2,176.3	2,253.7	1.14	0.95	0.63
10,462.0	89.20	94.10	8,222.4	-645.0	2,270.0	2,347.2	0.67	0.64	-0.21
10,558.0	87.80	95.30	8,224.9	-652.9	2,365.6	2,442.8	1.92	-1.46	1.25
10,652.0	90.60	95.10	8,226.2	-661.4	2,459.2	2,536.4	2.99	2.98	-0.21
10,746.0	91.10	94.00	8,224.8	-668.9	2,552.9	2,630.0	1.29	0.53	-1.17
10,841.0	90.20	94.50	8,223.8	-675.9	2,647.6	2,724.5	1.08	-0.95	0.53
10,935.0	89.20	94.00	8,224.2	-682.9	2,741.4	2,818.1	1.19	-1.06	-0.53
11,031.0	87.60	93.90	8,226.9	-689.5	2,837.1	2,913.5	1.67	-1.67	-0.10
11,126.0	89.50	94.60	8,229.3	-696.5	2,931.8	3,008.0	2.13	2.00	0.74
11,222.0	87.90	93.60	8,231.5	-703.4	3,027.5	3,103.5	1.97	-1.67	-1.04
11,317.0	87.60	94.30	8,235.2	-709.9	3,122.2	3,197.9	0.80	-0.32	0.74
11,412.0	89.00	92.90	8,238.1	-715.9	3,217.0	3,292.3	2.08	1.47	-1.47
11,507.0	90.00	91.80	8,238.9	-719.8	3,311.9	3,386.4	1.56	1.05	-1.16
11,602.0	90.50	92.50	8,238.5	-723.3	3,406.9	3,480.6	0.91	0.53	0.74
11,697.0	91.60	93.20	8,236.7	-728.1	3,501.7	3,574.8	1.37	1.16	0.74
11,792.0	89.60	94.30	8,235.7	-734.3	3,596.5	3,669.2	2.40	-2.11	1.16
11,888.0	88.20	92.40	8,237.6	-739.9	3,692.3	3,764.6	2.46	-1.46	-1.98
11,983.0	87.90	92.80	8,240.8	-744.2	3,787.2	3,858.8	0.53	-0.32	0.42
12,077.0	88.90	93.70	8,243.4	-749.5	3,881.0	3,952.1	1.43	1.06	0.96
12,172.0	89.80	93.00	8,244.5	-755.1	3,975.8	4,048.4	1.20	0.95	-0.74
12,267.0	88.30	93.70	8,246.1	-760.6	4,070.6	4,140.8	1.74	-1.58	0.74
12,362.0	88.90	94.30	8,248.4	-767.2	4,165.4	4,235.3	0.89	0.63	0.63
12,453.0	87.70	91.80	8,251.1	-772.1	4,256.2	4,325.6	3.05	-1.32	-2.75
12,549.0	91.00	92.40	8,252.2	-775.6	4,352.1	4,420.6	3.49	3.44	0.63
12,643.0	90.70	91.00	8,250.8	-778.4	4,446.0	4,513.7	1.52	-0.32	-1.49
12,738.0	90.80	89.30	8,249.6	-778.6	4,541.0	4,607.3	1.79	0.11	-1.79
12,772.0	90.80	89.10	8,249.1	-778.2	4,575.0	4,640.7	0.59	0.00	-0.59
12,830.0	90.80	89.10	8,248.3	-777.2	4,633.0	4,697.6	0.00	0.00	0.00

12830' MD Survey Depth PBHL Bradley 31 B2DA Fed Com #1H

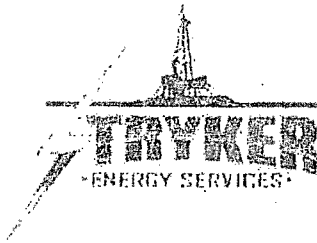
Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/W (usft)	
7,280.0	7,275.8	146.8	-64.3	7280' VES Gyro Survey
12,830.0	8,248.3	-777.2	4,633.0	12830' MD Survey Depth



Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well: Bradley 31 B2DA Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Site:	Section 31-18S-30E Bradley 31 B2DA Fed Com #1H	MD Reference:	3452 + 30 @ 3482.0usft (Rig 160)
Well:	Bradley 31 B2DA Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker EDM



NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 13 2015

RECEIVED

September 8, 2014

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

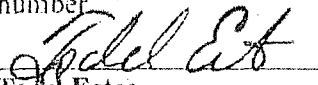
Attn: Jackie Lathan

Re: Mewbourne Oil Company
Bradley 31 B2DA Federal Com #001H
Santo Nino; Bone Spring
Eddy County, New Mexico
API# 30-015-40562

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Paul Niewiemski	Original Hole	7,355 ft. to 12,772 ft.	07-31-14 to 08-11-14	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Todd Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Bradley 31 B2DA Federal Com #11FM141166

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163

JAN 13 2015

RECEIVED



September 8, 2014

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of July 31, 2014 thru August 11, 2014, conduct or supervise the taking of a SEDS MWD Survey from a depth of 7,355 feet to 12,772 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Bradley 31 B2DA Federal Com #001H well, API # 30-015-40562 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



Job Number: M141166

State/Country: New Mexico / USA

Company: Mewbourne Oil Company

Declination: 7.28° Corrected To Grid

Lease/Well: Bradley 31 B2DA Federal Com # 1H Grid: 7.28°

Location: Eddy County

File name: C:\WINSERVE\DOCS\M141166.SVY

Rig Name: Patterson # 160

Date/Time: 29-Aug-14 / 15:51

RKB: N/A

Curve Name: SES MWD SURVEY RAN ON 7-31-14

G.L. or M.S.L.: N/A

Styker Energy Directional Services, LLC.

WINSERVE SURVEY CALCULATIONS Minimum Curvature Method Vertical Section Plane 99.93 Vertical Section Referenced to Wellhead Rectangular Coordinates Referenced to Wellhead

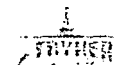
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
Distance FT	Direction Deg								
Tie-In Data Provided by VES Gyro Survey									
7280.00	2.04	68.26	7275.80	146.85	-64.32	-88.68	160.32	336.35	.00
7355.00	1.80	148.70	7350.77	146.34	-62.47	-86.77	159.11	336.88	3.31
7387.00	5.60	171.80	7382.70	144.36	-61.98	-85.95	157.11	336.76	12.52
7419.00	10.20	175.10	7414.39	139.99	-61.52	-84.74	152.91	336.28	14.44
7451.00	14.50	174.70	7445.64	133.18	-60.91	-82.96	146.44	335.42	13.44
7482.00	18.50	174.80	7475.36	124.41	-60.10	-80.66	138.17	334.22	12.90
7514.00	23.30	175.20	7505.24	113.04	-59.11	-77.72	127.56	332.39	15.01
7546.00	25.80	176.10	7534.35	99.79	-58.11	-74.45	115.47	329.79	7.90
7577.00	26.90	174.60	7562.13	86.07	-56.99	-70.98	103.23	326.49	4.15
7609.00	30.50	174.80	7590.19	70.77	-55.57	-66.94	89.98	321.86	11.25
7641.00	33.30	170.60	7617.36	54.01	-53.40	-61.91	75.95	315.33	11.16
7673.00	35.60	167.50	7643.75	36.25	-49.95	-55.45	61.72	305.97	9.04
7704.00	37.80	166.30	7668.60	18.21	-45.75	-48.20	49.24	291.71	7.46
7736.00	40.00	165.70	7693.50	-1.29	-40.88	-40.05	40.90	268.20	6.98
7768.00	41.60	166.40	7717.72	-21.58	-35.84	-31.59	41.84	238.95	5.20
7800.00	42.60	167.20	7741.47	-42.46	-30.95	-23.16	52.54	216.08	3.55
7832.00	44.20	167.40	7764.72	-63.91	-26.11	-14.70	69.04	202.22	5.02
7863.00	46.90	166.80	7786.42	-85.48	-21.17	-6.11	88.06	193.91	8.82
7895.00	48.40	164.80	7807.98	-108.40	-15.37	3.56	109.49	188.07	6.58
7927.00	48.70	160.60	7829.17	-131.29	-8.23	14.53	131.55	183.59	9.88
7959.00	49.70	157.10	7850.08	-153.88	.51	27.04	153.88	179.81	8.85
7990.00	50.20	153.30	7870.03	-175.41	10.46	40.55	175.72	176.59	9.52
8022.00	50.90	149.90	7890.37	-197.14	22.21	55.88	198.39	173.57	8.49
8054.00	51.30	146.50	7910.47	-218.30	35.34	72.45	221.14	170.81	8.36

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
8086.00	52.40	143.60	7930.24	-238.92	49.75	90.21	244.04	168.24	7.91
8117.00	54.00	141.20	7948.81	-258.58	64.90	108.52	266.60	165.91	8.07
8149.00	54.70	139.00	7967.46	-278.52	81.58	128.39	290.22	163.67	6.00
8181.00	55.40	136.40	7985.80	-297.92	99.23	149.12	314.01	161.58	7.01
8212.00	56.20	133.80	8003.22	-316.07	117.33	170.08	337.15	159.63	7.40
8244.00	57.10	131.70	8020.82	-334.22	136.96	192.54	361.19	157.72	6.16
8276.00	59.10	128.90	8037.73	-351.78	157.68	215.98	385.50	155.86	9.71
8308.00	62.50	127.80	8053.34	-369.10	179.58	240.54	410.47	154.06	11.04
8339.00	64.40	126.00	8067.19	-385.75	201.76	265.26	435.33	152.39	8.03
8371.00	66.00	125.20	8080.62	-402.66	225.38	291.44	461.44	150.76	5.49
8403.00	68.40	123.60	8093.02	-419.32	249.72	318.29	488.04	149.22	8.80
8435.00	70.20	122.10	8104.33	-435.55	274.86	345.86	515.03	147.75	7.13
8466.00	72.00	119.70	8114.37	-450.61	300.03	373.24	541.36	146.34	9.35
8498.00	72.70	115.50	8124.08	-464.73	327.05	402.29	568.27	144.86	12.70
8530.00	73.20	112.10	8133.46	-477.07	355.03	431.98	594.68	143.34	10.28
8562.00	74.30	109.00	8142.42	-487.85	383.80	462.17	620.73	141.81	9.92
8593.00	76.30	107.40	8150.28	-497.22	412.28	491.85	645.91	140.34	8.16
8625.00	78.50	105.50	8157.26	-506.06	442.23	522.87	672.06	138.85	8.99
8657.00	80.40	102.40	8163.12	-513.64	472.75	554.25	698.08	137.37	11.22
8688.00	81.80	99.10	8167.92	-519.35	502.84	584.86	722.89	135.93	11.45
8720.00	82.50	97.60	8172.29	-523.95	534.20	616.55	748.26	134.44	5.13
8735.00	82.70	97.50	8174.22	-525.90	548.95	631.41	760.21	133.77	1.49
8850.00	84.40	95.10	8187.14	-538.44	662.52	745.44	853.72	129.10	2.55
8881.00	85.50	95.20	8189.87	-541.21	693.27	776.22	879.51	127.98	3.56
8912.00	86.30	95.70	8192.09	-544.15	724.05	807.04	905.73	126.93	3.04
8944.00	87.70	95.30	8193.76	-547.21	755.86	838.90	933.15	125.90	4.55
8976.00	89.90	95.40	8194.43	-550.19	787.71	870.79	960.83	124.93	6.88
9039.00	90.30	95.40	8194.32	-556.12	850.43	933.59	1016.12	123.18	.63
9133.00	89.00	95.30	8194.90	-564.89	944.02	1027.29	1100.12	120.90	1.39
9228.00	88.10	94.30	8197.30	-572.83	1038.65	1121.88	1186.14	118.88	1.42
9323.00	87.40	93.30	8201.03	-579.12	1133.37	1216.26	1272.76	117.07	1.28
9419.00	89.80	92.80	8203.38	-584.23	1229.20	1311.53	1360.98	115.42	2.55
9513.00	90.20	91.50	8203.38	-587.76	1323.13	1404.66	1447.80	113.95	1.45
9609.00	90.80	91.90	8202.54	-590.60	1419.08	1499.67	1537.08	112.60	.75
9704.00	89.60	92.00	8202.21	-593.84	1514.03	1593.75	1626.32	111.42	1.27
9798.00	88.80	93.00	8203.52	-597.94	1607.93	1686.95	1715.50	110.40	1.36
9893.00	89.00	93.10	8205.34	-602.99	1702.77	1781.25	1806.39	109.50	.24
9988.00	88.20	95.40	8207.67	-610.03	1797.48	1875.75	1898.17	108.75	2.56
10083.00	87.10	94.40	8211.56	-618.13	1892.05	1970.30	1990.46	108.09	1.56
10178.00	89.00	94.00	8214.79	-625.09	1986.73	2064.76	2082.75	107.47	2.04
10273.00	87.70	93.70	8217.53	-631.46	2081.48	2159.19	2175.15	106.88	1.40
10368.00	88.60	94.30	8220.60	-638.09	2176.19	2253.63	2267.81	106.34	1.14
10462.00	89.20	94.10	8222.40	-644.97	2269.92	2347.14	2359.78	105.86	.67
10558.00	87.80	95.30	8224.91	-652.83	2365.57	2442.70	2453.99	105.43	1.92
10652.00	90.60	95.10	8226.23	-661.35	2459.16	2536.37	2546.54	105.05	2.99

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
10746.00	91.10	94.00	8224.83	-668.81	2552.85	2629.94	2639.01	104.68	1.29
10841.00	90.20	94.50	8223.75	-675.85	2647.58	2724.47	2732.48	104.32	1.08
10935.00	89.20	94.00	8224.25	-682.81	2741.32	2818.00	2825.08	103.99	1.19
11031.00	87.60	93.90	8226.93	-689.42	2837.05	2913.44	2919.62	103.66	1.67
11126.00	89.50	94.60	8229.33	-696.46	2931.76	3007.94	3013.35	103.36	2.13
11222.00	87.90	93.60	8231.51	-703.32	3027.48	3103.41	3108.10	103.08	1.97
11317.00	87.60	94.30	8235.24	-709.86	3122.18	3197.82	3201.86	102.81	.80
11412.00	89.00	92.90	8238.06	-715.82	3216.95	3292.20	3295.63	102.54	2.08
11507.00	90.00	91.80	8238.88	-719.72	3311.86	3386.36	3389.16	102.26	1.56
11602.00	90.50	92.50	8238.47	-723.28	3406.79	3480.48	3482.73	101.99	.91
11697.00	91.60	93.20	8236.73	-728.01	3501.66	3574.74	3576.53	101.74	1.37
11792.00	89.60	94.30	8235.73	-734.22	3596.44	3669.18	3670.62	101.54	2.40
11888.00	88.20	92.40	8237.58	-739.83	3692.25	3764.52	3765.65	101.33	2.46
11983.00	87.90	92.80	8240.81	-744.13	3787.10	3858.69	3859.52	101.12	.53
12077.00	88.90	93.70	8243.44	-749.46	3880.91	3952.01	3952.62	100.93	1.43
12172.00	89.80	93.00	8244.51	-755.01	3975.74	4046.38	4046.80	100.75	1.20
12267.00	88.30	93.70	8246.09	-760.56	4070.56	4140.74	4141.01	100.58	1.74
12362.00	88.90	94.30	8248.41	-767.19	4165.30	4235.20	4235.37	100.44	.89
12453.00	87.70	91.80	8251.11	-772.03	4256.12	4325.50	4325.58	100.28	3.05
12549.00	91.00	92.40	8252.20	-775.54	4352.04	4420.58	4420.60	100.10	3.49
12643.00	90.70	91.00	8250.80	-778.33	4445.99	4513.60	4513.60	99.93	1.52
12738.00	90.80	89.30	8249.56	-778.58	4540.97	4607.21	4607.24	99.73	1.79
12772.00	90.80	89.10	8249.09	-778.11	4574.97	4640.61	4640.67	99.65	.59
Projection to Bit									
12830.00	90.80	89.10	8248.28	-777.20	4632.95	4697.57	4697.69	99.52	.00



COMPANY: Maybrook Oil Company
 WELL: Bradley 31 B2DA Fed Com #1H
 COUNTY: Eddy County, New Mexico
 DATUM: NAD 1977 (NADCON CONUS)



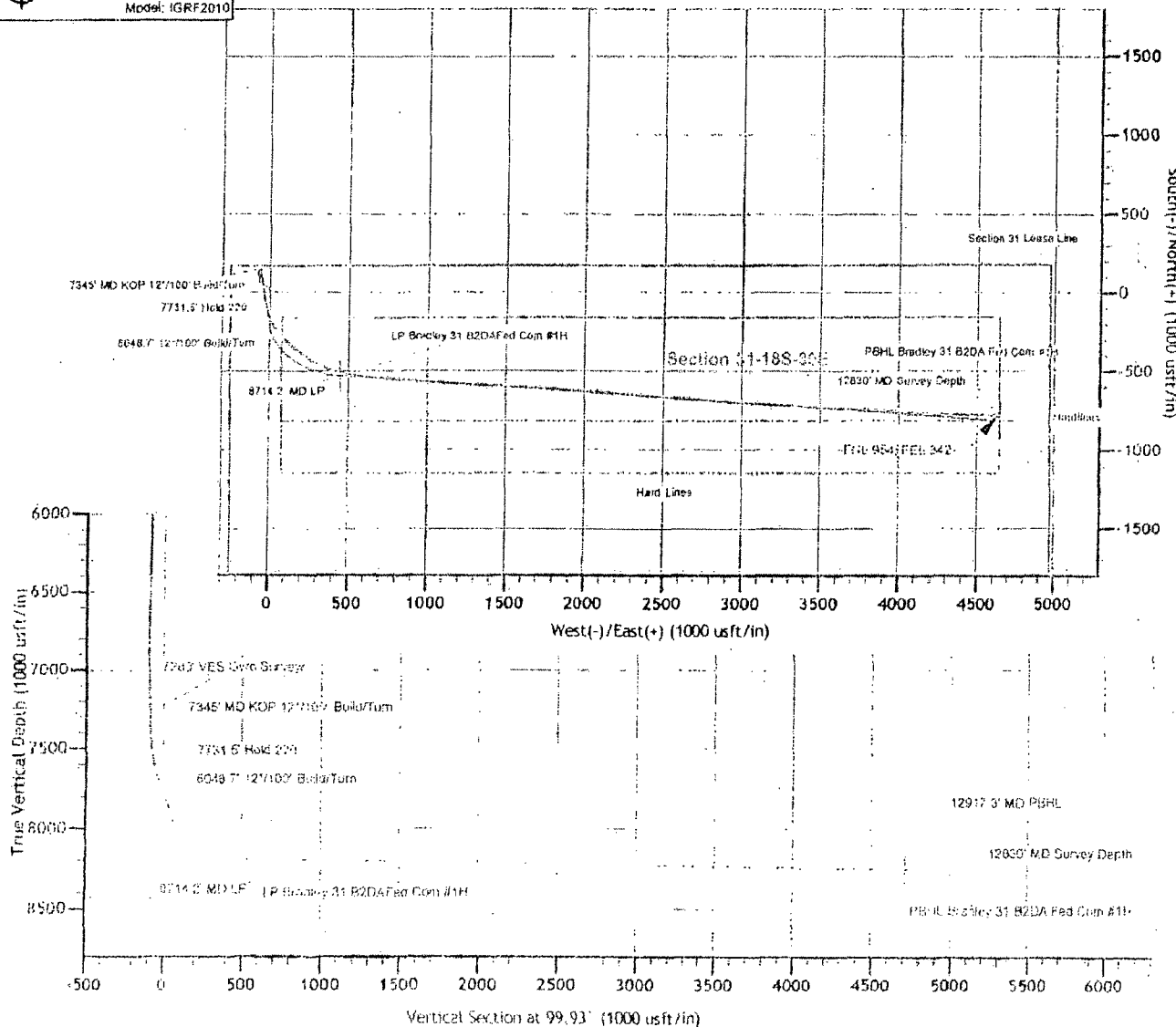
GRID CORRECTION: True West is 275.94 ft. from a grid section. Add 7.78'

OFFICE: 936 582 7296

GEODETHIC ZONE: New Mexico East 3001										
3452 F 30 3482.0 (Rig 160)										
GROUND ELEVATION: 3452.0										
+N/S	+E/W	North	East	Latitude	Longitude	Slot				
0.0	0.0	622398.10	696876.90	32° 42' 38.42" N	104° 1' 5.129" W					
PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Diag	IFace	VSect	Target
1	7280.0	2.04	88.26	7275.8	146.8	-64.3	0.00	0.00	-58.5	
2	7345.0	2.04	88.26	7340.8	147.7	-62.1	0.00	0.00	-58.6	
3	7731.5	45.91	170.51	7687.5	5.5	-31.1	12.00	104.16	-31.8	
4	8048.7	45.91	170.51	7908.2	-219.2	6.4	0.00	0.00	-44.1	
5	8714.2	69.18	23.67	8192.0	-328.4	452.3	12.00	51.00	537.0	LP Bradley 31 B2DA Fed Com #1H
6	12917.3	69.18	99.87	8252.3	-613.4	4645.5	0.00	0.00	4715.7	PBHL Bradley 31 B2DA Fed Com #1H

DESIGN TARGET DETAILS									
Name	TVD	+N/S	+E/W	North	East	Latitude	Longitude	Shape	
LP Bradley 31 B2DA Fed Com #1H	8192.0	-629.4	452.5	621898.70	697329.4032	42° 33' 17.6" N	104° 1' 0.651" W	Point	
plan hits target center									
PBHL Bradley 31 B2DA Fed Com #1H	8252.0	-813.4	4645.5	621684.74	601522.4032	42° 30' 23.8" N	104° 0' 11.787" W	Point	
plan hits target center									

Azimuths to Grid North:
 True North: -0.12°
 Magnetic North: 7.28°
 Magnetic Field:
 Strength: 48551.4 nT
 Dip Angle: 60.48°
 Date: 7/15/2014
 Model: IGRF2010





Company: MEWBOURNE OIL
Lease/Well: BRADLEY 31 B2DA FED COM /1H

Rig Name: PATTERSON 160
State/County: NEW MEXICO/EDDY
Latitude: 32.71, Longitude: -104.02
GRID North is 0.17 Degrees East of True North
VS-Azi: 0.00 Degrees



Depth Reference : RKB:35 FEET

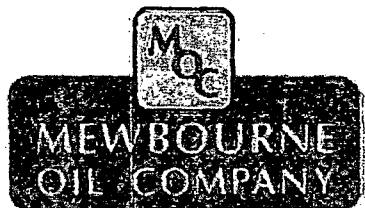
DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 8/21/2014 / 14:13

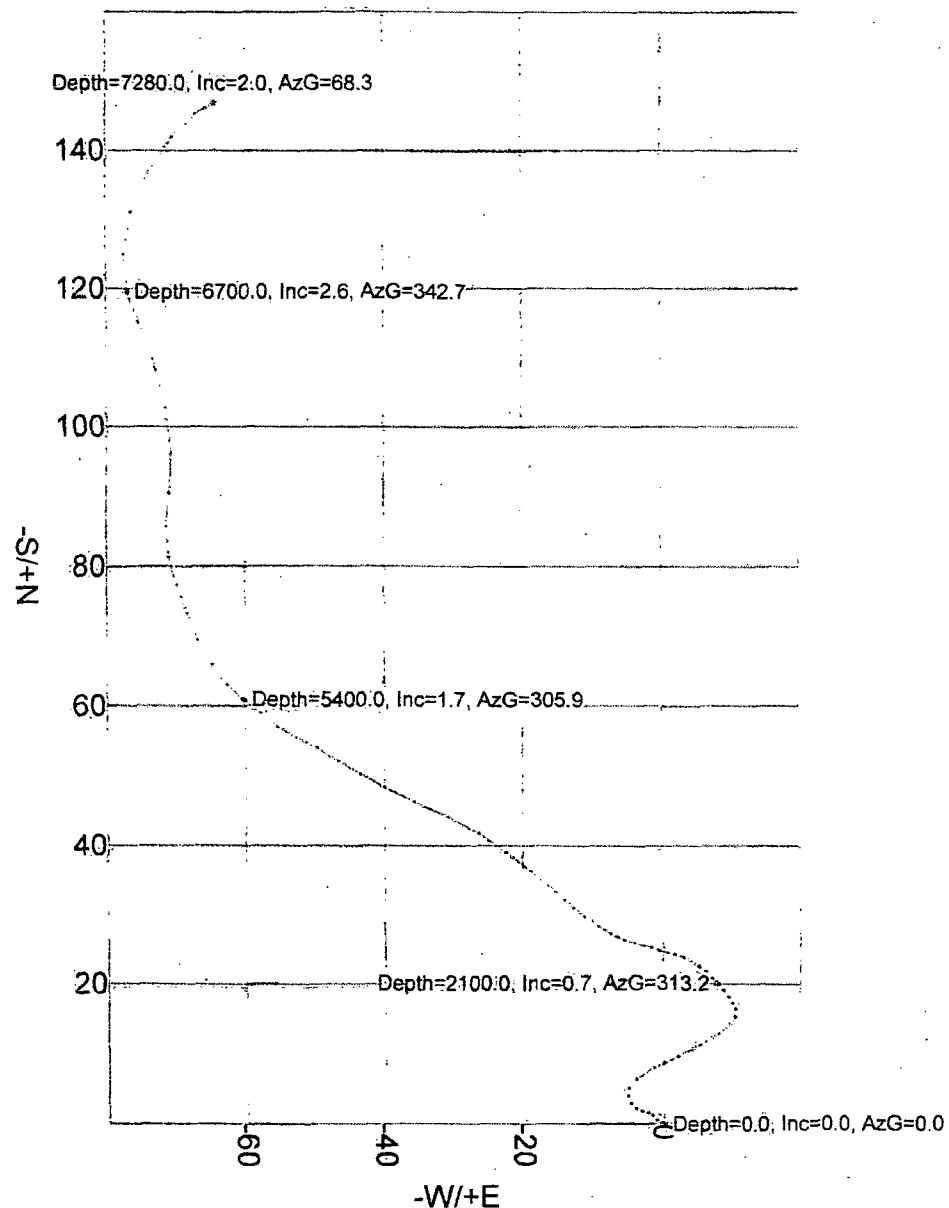
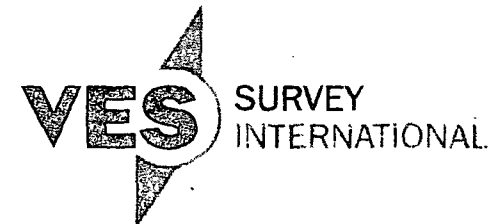
VES Survey International
West Texas
(432) 563-5444
Surveyor: Jordan Shelleby
Bradley 31 B2DA Fed Com 1H / API 30-015-40562

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	0.43	284.73	100.00	0.10	-0.37	0.10	0.38	284.73	0.43
200.00	0.56	316.15	200.00	0.55	-1.07	0.55	1.20	296.99	0.30
300.00	0.42	319.41	299.99	1.18	-1.65	1.18	2.03	305.54	0.14
400.00	0.52	288.83	399.99	1.61	-2.32	1.61	2.83	304.68	0.27
500.00	0.57	283.05	499.98	1.87	-3.24	1.87	3.74	299.95	0.07
600.00	0.52	304.16	599.98	2.23	-4.10	2.23	4.67	298.57	0.21
700.00	0.63	330.97	699.97	2.96	-4.74	2.96	5.59	302.03	0.29
800.00	0.69	342.81	799.97	4.01	-5.18	4.01	6.55	307.77	0.15
900.00	0.69	28.75	899.96	5.11	-5.07	5.11	7.20	315.27	0.54
1000.00	1.32	47.46	999.95	6.43	-3.92	6.43	7.53	328.58	0.70
1100.00	2.10	64.08	1099.90	8.01	-1.42	8.01	8.13	349.92	0.92
1200.00	2.22	64.41	1199.83	9.65	1.97	9.65	9.84	11.54	0.11
1300.00	2.07	61.40	1299.76	11.35	5.30	11.35	12.52	25.04	0.18
1400.00	1.48	57.59	1399.71	12.90	7.97	12.90	15.16	31.72	0.60
1500.00	0.90	39.05	1499.69	14.20	9.55	14.20	17.12	33.93	0.68
1600.00	0.70	22.39	1599.68	15.38	10.28	15.38	18.50	33.77	0.31
1700.00	0.59	339.62	1699.67	16.43	10.34	16.43	19.41	32.17	0.48
1800.00	0.55	327.69	1799.67	17.32	9.90	17.32	19.95	29.75	0.13

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	0.61	327.48	1899.66	18.18	9.35	18.18	20.45	27.22	0.06
2000.00	0.76	323.25	1999.66	19.16	8.67	19.16	21.03	24.34	0.15
2100.00	0.66	313.21	2099.65	20.09	7.85	20.09	21.57	21.36	0.16
2200.00	0.62	313.56	2199.64	20.85	7.04	20.85	22.01	18.67	0.03
2300.00	0.77	315.58	2299.64	21.70	6.18	21.70	22.57	15.91	0.15
2400.00	0.79	305.24	2399.63	22.58	5.15	22.58	23.16	12.85	0.14
2500.00	0.73	301.44	2499.62	23.31	4.04	23.31	23.66	9.84	0.08
2600.00	0.73	290.67	2599.61	23.87	2.90	23.87	24.04	6.94	0.14
2700.00	0.72	285.75	2699.60	24.26	1.71	24.26	24.32	4.03	0.06
2800.00	0.62	280.08	2799.60	24.53	0.57	24.53	24.53	1.33	0.12
2900.00	0.75	291.56	2899.59	24.86	-0.57	24.86	24.87	358.68	0.19
3000.00	0.66	288.46	2999.58	25.28	-1.73	25.28	25.34	356.10	0.10
3100.00	0.68	282.35	3099.57	25.59	-2.85	25.59	25.75	353.64	0.08
3200.00	0.89	286.14	3199.56	25.94	-4.18	25.94	26.27	350.84	0.22
3300.00	0.80	284.89	3299.55	26.33	-5.61	26.33	26.92	347.98	0.09
3400.00	0.54	307.61	3399.55	26.80	-6.66	26.80	27.62	346.05	0.37
3500.00	0.57	293.19	3499.54	27.29	-7.49	27.29	28.30	344.65	0.14
3600.00	0.59	304.62	3599.54	27.78	-8.37	27.78	29.01	343.22	0.12
3700.00	0.61	295.77	3699.53	28.30	-9.28	28.30	29.78	341.85	0.10
3800.00	0.67	310.82	3799.53	28.92	-10.21	28.92	30.66	340.56	0.18
3900.00	0.91	307.18	3899.52	29.78	-11.28	29.78	31.85	339.25	0.24
4000.00	1.33	306.74	3999.50	30.96	-12.85	30.96	33.52	337.46	0.43
4100.00	2.68	315.41	4099.43	33.32	-15.42	33.32	36.71	335.16	1.38
4200.00	2.54	306.83	4199.33	36.31	-18.84	36.31	40.91	332.58	0.41
4300.00	2.73	306.30	4299.22	39.05	-22.54	39.05	45.09	330.01	0.19
4400.00	2.71	303.37	4399.11	41.77	-26.43	41.77	49.43	327.67	0.14
4500.00	3.02	293.61	4498.99	44.12	-30.82	44.12	53.82	325.06	0.57
4600.00	3.12	294.07	4598.84	46.29	-35.72	46.29	58.47	322.34	0.11
4700.00	2.39	299.55	4698.73	48.43	-40.03	48.43	62.83	320.43	0.78
4800.00	2.13	296.71	4798.65	50.30	-43.50	50.30	66.50	319.14	0.28
4900.00	2.04	301.99	4898.58	52.07	-46.67	52.07	69.93	318.13	0.22
5000.00	2.10	299.62	4998.52	53.92	-49.77	53.92	73.38	317.29	0.10
5100.00	1.82	292.85	5098.46	55.44	-52.82	55.44	76.57	316.38	0.36
5200.00	1.81	307.01	5198.41	57.00	-55.55	57.00	79.59	315.74	0.45
5300.00	1.71	312.83	5298.36	58.97	-57.90	58.97	82.65	315.52	0.21
5400.00	1.73	305.87	5398.32	60.87	-60.22	60.87	85.62	315.31	0.21
5500.00	1.95	315.06	5498.27	62.96	-62.64	62.96	88.81	315.14	0.37
5600.00	2.32	329.21	5598.20	65.90	-64.88	65.90	92.48	315.45	0.64
5700.00	2.35	334.00	5698.11	69.49	-66.82	69.49	96.40	316.12	0.20



VES Survey International
West Texas
(432) 563-5444
Surveyor: Jordan Shelleby
Bradley 31 B2DA Fed Com 1H / API 30-015-40562



VES Survey Date: 07/31/2014

Operating Company Mawbourne Oil Co.
Well Name & Number ADLEY 31 B2DA FED COM
Sales Ticket Number 0

Company Rep ART HILLARD
Field Bone Spring
BOT Service Rep Michael Martinez
District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse			
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUT	0.03826	8,788.00	7,240	54.1			
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,396.39	5,350	4.960			
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-			
TVD	8180.00		KOP		7345.00		Open Hole		6.125	Casing Vol. (bbl)	320.3		
Carry Fluid Weight (ppg)		8.4		Propan Content (ppa)						Max Drill Out Size		.0	
	Comm. Number		Description			Depth	Length	OD	ID	Ball Seat ID	Shank Press	Max Rate (BPM)	Diap. (BBL)
Liner Top	1	10292414		JR Slv w. 4.750" Alt Seal Bore ID			8371.11	4.00	5.750	3.913			

Zone Length													
	H4090400008	S-3 Casing Hanger/Packer	8375.11	4.63	5.875	3.875		1650					
	H299900281	Combo Collar (4-1/2 LT&C)	8379.74	0.58	5.000	4.500							
	H299710014	4-1/2" 13.5# LT&C Spacer Nipple	8380.32	7.58	4.500	3.938							
zone 20		11 Jnts 4-1/2" 13.5# LT&C csg	8387.88	459.99	3.920								
593.4	H810090200	3.600" EXPress Sleeve (Zone 20)	8847.87	2.40	5.630			3.448	2286				
		3 Jnts 4-1/2" 13.5# LT&C csg	8850.27	122.86	4.500	3.920							
zone 19	H409380008	582 OH PACKER #19	8973.12	3.89	5.820	3.875		2154					
208.9		2 Jnts 4-1/2" 13.5# LT&C csg	8977.02	81.45	4.500	3.920							
	H810090199	3.438" EXPress Sleeve (Zone 19)	9059.47	2.40	5.630			3.385	2286				
		3 Jnts 4-1/2" 13.5# LT&C csg	9060.87	126.09	4.500	3.920							
zone 18	H409380008	582 OH PACKER #18	9185.96	3.89	5.820	3.875		2154					
207		2 Jnts 4-1/2" 13.5# LT&C csg	9189.85	82.73	4.500	3.920							
	H810090198	3.375" EXPress Sleeve (Zone 18)	9272.56	2.40	5.630			3.323	2286				
		3 Jnts 4-1/2" 13.5# LT&C csg	9274.98	121.87	4.500	3.920							
zone 17	H409380008	582 OH PACKER #17	9398.85	3.89	5.820	3.875		2154					
210.9		2 Jnts 4-1/2" 13.5# LT&C csg	9400.74	84.04	4.500	3.920							
	H810090197	3.313" EXPress Sleeve (Zone 17)	9484.78	2.40	5.630			3.280	2286				
		3 Jnts 4-1/2" 13.5# LT&C csg	9487.18	124.49	4.500	3.920							
zone 16	H409380008	582 OH PACKER #16	9611.87	3.89	5.820	3.875		2154					
209.2		2 Jnts 4-1/2" 13.5# LT&C csg	9615.56	81.92	4.500	3.920							
	H810090196	3.250" EXPress Sleeve (Zone 16)	9697.48	2.40	5.630			3.198	2286				
		3 Jnts 4-1/2" 13.5# LT&C csg	9699.88	124.87	4.500	3.920							

Operating Company Mewbourne Oil Co.
 Well Name & Number ADLEY 31 B2DA FED COM
 Sales Ticket Number 0.
 Date 8/10/2014

Company Rep ART HILLARD
 Field Bone Spring
 BOT Service Rep Michael Martinez
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	8788.00	7240	541
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4396.39	5350	4960
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD	8180.00		KOP	7345.00		Open Hole	6.125		Casing Vol. (bbl)	320.3
Carry Fluid Weight (ppg)	8.4		Propan Content (ppa)			Max Drill Out Size	0			

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Sleeve Press	Max Rate (GPM)	Displ. (BBL)
zone 15	H409360008	582 OH PACKER #15	9824.75	3.89	5.820	3.875		2154		
200.4		2 Jnts 4-1/2" 13.5# LT&C csg	9828.64	79.84	4.500	3.920				
	H810090195	3.188" EXPress Sleeve (Zone 15)	9908.48	2.40	5.630		3.135	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	9910.88	118.15	4.500	3.920				
zone 14	H409360008	582 OH PACKER #14	10029.03	3.89	5.820	3.875		2154		
205.7		2 Jnts 4-1/2" 13.5# LT&C csg	10032.92	79.50	4.500	3.920				
	H810090194	3.125" EXPress Sleeve (Zone 14)	10112.42	2.40	5.630		3.073	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10114.82	123.83	4.500	3.920				
zone 13	H409360008	582 OH PACKER #13	10238.65	3.89	5.820	3.875		2154		
209.8		2 Jnts 4-1/2" 13.5# LT&C csg	10242.54	84.08	4.500	3.920				
	H810090193	3.063" EXPress Sleeve (Zone 13)	10326.62	2.40	5.630		3.010	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	10329.02	123.30	4.500	3.920				
zone 12	H409360008	582 OH PACKER #12	10452.32	3.89	5.820	3.875		2154		
166.4		2 Jnts 4-1/2" 13.5# LT&C csg	10456.21	81.19	4.500	3.920				
	H810090192	3.00" EXPress Sleeve (Zone 12)	10537.40	2.40	5.630		2.948	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	10539.80	82.85	4.500	3.920				
zone 11	H409360008	582 OH PACKER #11	10622.65	3.89	5.820	3.875		2154		
213.4		2 Jnts 4-1/2" 13.5# LT&C csg	10626.54	84.34	4.500	3.920				
	H810090191	2.938" EXPress Sleeve (Zone 11)	10710.88	2.40	5.630		2.885	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10713.28	126.70	4.500	3.920				
zone 10	H409360008	582 OH PACKER #10	10839.98	3.89	5.820	3.875		2154		
209.2		2 Jnts 4-1/2" 13.5# LT&C csg	10843.87	81.29	4.500	3.920				
	H810090190	2.875" EXPress Sleeve (Zone 10)	10925.16	2.40	5.630		2.823	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10927.56	125.52	4.500	3.920				
zone 9	H409360008	582 OH PACKER #9	11053.08	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11056.97	82.73	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number ADLEY 31 B2DA FED COM
 Sales Ticket Number 0
 Date 8/10/2014

Company Rep ART HILLARD
 Field Bone Spring
 BOT Service Rep Michael Martinez
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse		
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	8,788.00	7,240	541		
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,396.39	5,350	4,960		
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-		
TVD		8180.00		KOP		7345.00		Open Hole		6.125	Casing Vol. (bbl)	320.3
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)						Max Drill Out Size	0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	3 1/2" ID	4 1/2" ID	Displ. (BBL)
212.2	H810090189	2.813" EXPress Sleeve (Zone 9)	11139.70	2.40	5.630		2.760	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11142.10	127.07	4.500	3.920				
	H409360008	582 OH PACKER #8	11269.17	3.89	5.820	3.875		2154		
zone 8		2 Jnts 4-1/2" 13.5# LT&C csg	11273.06	84.31	4.500	3.920				
210.5	H810090188	2.750" EXPress Sleeve (Zone 8)	11357.37	2.40	5.630		2.698	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11359.77	123.79	4.500	3.920				
	H409360008	582 OH PACKER #7	11483.56	3.89	5.820	3.875		2154		
zone 7		2 Jnts 4-1/2" 13.5# LT&C csg	11487.45	83.95	4.500	3.920				
171.1	H810090187	2.688" EXPress Sleeve (Zone 7)	11571.40	2.40	5.630		2.635	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	11573.80	80.84	4.500	3.920				
	H409360008	582 OH PACKER #6	11654.64	3.89	5.820	3.875		2154		
zone 6		2 Jnts 4-1/2" 13.5# LT&C csg	11658.53	83.90	4.500	3.920				
212.9	H810090186	2.625" EXPress Sleeve (Zone 6)	11742.43	2.40	5.630		2.573	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11744.83	126.58	4.500	3.920				
	H409360008	582 OH PACKER #5	11871.41	3.89	5.820	3.875		2154		
zone 5		2 Jnts 4-1/2" 13.5# LT&C csg	11875.30	82.53	4.500	3.920				
208.9	H810090185	2.563" EXPress Sleeve (Zone 5)	11957.83	2.40	5.630		2.510	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11960.23	123.93	4.500	3.920				
	H409360008	582 OH PACKER #4	12084.16	3.89	5.820	3.875		2154		
zone 4		2 Jnts 4-1/2" 13.5# LT&C csg	12088.05	83.84	4.500	3.920				
174.1	H810090184	2.500" EXPress Sleeve (Zone 4)	12171.89	2.40	5.630		2.448	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12174.29	83.98	4.500	3.920				
	H409360008	582 OH PACKER #3	12258.27	3.89	5.820	3.875		2154		
zone 3		3 Jnts 4-1/2" 13.5# LT&C csg	12262.16	124.46	4.500	3.920				
214.7	H810090183	2.438" EXPress Sleeve (Zone 3)	12386.62	2.40	5.630		2.385	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12389.02	83.99	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number WADLEY 31 B2DA FED COM
 Sales Ticket Number 0
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Company Rep ART HILLARD
 Field Bone Spring
 BOT Service Rep Michael Martinez
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse	
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	8,788.00	7,240	541	
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,396.39	5,350	4,960	
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-	
TVD	8180.00		KOP		7345.00		Open Hole		6.125	Casing Vol. (bbl)	320.3
Carry Fluid Weight (ppg)	8.4		Propan Content (ppa)					Max Drill Out Size		0	

	Comm. Number	Description	Depth	Length	OD	ID	Ball Size ID	Shut Off Press	Max Rate (GPM)	Flow (GAL)
zone 2 170.8	H409380008	582 OH PACKER #2	12473.01	3.89	5.820	3.875		2164		
		2 Jnts 4-1/2" 13.5# LT&C csg	12476.90	84.21	4.500	3.920				
	H810090182	2.576" EXPRess Sleeve (Zone2)	12581.11	2.40	5.830		2323	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12563.51	84.20	4.500	3.920				
zone 1 95.01	H409380008	582 OH PACKER #1	12647.71	3.89	5.820	3.875		2164		
		2 Jnts 4-1/2" 13.5# LT&C csg	12651.60	83.15	4.500	3.920				
	HALLIBURTON	4-1/2 13.5# P110 LT&C Casing Sub	12734.75	6.11	4.500	3.920				
	HALLIBURTON	Halliburton RSI Tool (Zone 1)	12740.86	5.75	5.750	3.635		4701		
	HALLIBURTON	4-1/2 13.5# P110 LT&C Casing Sub	12746.61	3.06	4.500	3.920				
	HALLIBURTON	Halliburton Shut Off Collar	12749.67	1.51	5.000					
	HALLIBURTON	4-1/2 13.5# P110 LT&C Casing Sub	12751.18	3.07	4.500	3.920				
	HALLIBURTON	Halliburton Float Collar	12754.25	1.65	5.000	3.985				
	HALLIBURTON	4-1/2 13.5# P110 LT&C Casing Sub	12755.90	10.10	4.500	3.920				
	HALLIBURTON	Halliburton Float Shoe	12766.00	1.50	5.010	4.025				
		Distance off bottom	12767.50	62.50						
		MD of Well	12830.00							
		Completion Fluid 8.4# KCL								
		RSI NOMINAL PSI 4701								