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Mewbourne Oil Co

Eddy County, New Mexico

Sec 36, T19S, R28E

Winchester 36 B2LI State #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

02 March, 2015

NM OIL CONSERVATION
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Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Winchester 36 B2LI State #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3319.0usft (Patterson # 46)
Site:	Sec 36, T19S, R28E	MD Reference:	Well @ 3319.0usft (Patterson # 46)
Well:	Winchester 36 B2LI State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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 36, T19S, R28E		
Site Position:		Northing:	587,652.80 usft
From:	Map	Easting:	560,167.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 36' 55.475 N
		Longitude:	104° 8' 16.534 W
		Grid Convergence:	0.11 °

Well	Winchester 36 B2LI State #1H		
Well Position	+N/-S	0.0 usft	Latitude: 32° 36' 55.475 N
	+E/-W	0.0 usft	Longitude: 104° 8' 16.534 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Ground Level:	3,299.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	10/2/2014	7.47
			Dip Angle (°)
			60.37
			Field Strength (nT)
			48,461

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction (°)
			89.56

Survey Program	Date 3/2/2015		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	6,960.0	Gyro (Wellbore #1)	Good_gyro
7,063.0	12,145.0	MWD (Wellbore #1)	MWD default
			Description
			Good Gyro
			MWD - Standard

Survey									
Measured Depth	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
(usft)	(°)	(°)	Depth (usft)	(usft)	(usft)	Section (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.10	192.84	100.0	-0.1	0.0	0.0	0.10	0.10	0.00
200.0	0.10	128.71	200.0	-0.2	0.0	0.0	0.11	0.00	-64.13
300.0	0.62	273.40	300.0	-0.2	-0.4	-0.4	0.70	0.52	144.69
400.0	1.09	329.84	400.0	0.6	-1.5	-1.5	0.91	0.47	56.44
500.0	1.28	324.99	500.0	2.3	-2.6	-2.6	0.21	0.19	-4.85
600.0	0.97	338.09	599.9	4.0	-3.5	-3.5	0.40	-0.31	13.10
700.0	1.37	20.16	699.9	6.0	-3.4	-3.4	0.92	0.40	42.07
800.0	1.29	23.62	799.9	8.1	-2.6	-2.5	0.11	-0.08	3.46
900.0	1.45	27.10	899.9	10.3	-1.5	-1.5	0.18	0.16	3.48

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Well:	Winchester 36 B2LI State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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	1.54	33.24	999.8	12.5	-0.2	-0.1	0.18	0.09	6.14
1,100.0	1.43	28.35	1,099.8	14.7	1.1	1.2	0.17	-0.11	-4.89
1,200.0	1.62	24.23	1,199.8	17.1	2.3	2.4	0.22	0.19	-4.12
1,300.0	1.71	25.67	1,299.7	19.8	3.5	3.6	0.10	0.09	1.44
1,400.0	1.69	26.24	1,399.7	22.4	4.8	5.0	0.03	-0.02	0.57
1,500.0	1.59	20.53	1,499.6	25.0	5.9	6.1	0.19	-0.10	-5.71
1,600.0	1.63	22.18	1,599.6	27.7	7.0	7.2	0.06	0.04	1.65
1,700.0	1.90	27.57	1,699.6	30.4	8.3	8.5	0.32	0.27	5.39
1,800.0	1.88	28.78	1,799.5	33.4	9.8	10.1	0.04	-0.02	1.21
1,900.0	1.72	25.05	1,899.5	36.2	11.2	11.5	0.20	-0.16	-3.73
2,000.0	1.90	27.24	1,999.4	39.0	12.6	12.9	0.19	0.18	2.19
2,100.0	1.92	25.86	2,099.3	42.0	14.1	14.4	0.05	0.02	-1.38
2,200.0	1.80	26.74	2,199.3	44.9	15.6	15.9	0.12	-0.12	0.88
2,300.0	1.54	27.16	2,299.3	47.5	16.9	17.2	0.26	-0.26	0.42
2,400.0	1.87	26.02	2,399.2	50.1	18.2	18.6	0.33	0.33	-1.14
2,500.0	1.74	21.23	2,499.2	53.0	19.5	19.9	0.20	-0.13	-4.79
2,600.0	1.13	355.59	2,599.1	55.4	19.9	20.4	0.87	-0.61	-25.64
2,700.0	0.07	275.44	2,699.1	56.4	19.8	20.2	1.12	-1.06	-80.15
2,800.0	0.12	225.26	2,799.1	56.3	19.7	20.1	0.09	0.05	-50.18
2,900.0	0.10	215.41	2,899.1	56.2	19.6	20.0	0.03	-0.02	-9.85
3,000.0	0.09	321.95	2,999.1	56.2	19.5	19.9	0.15	-0.01	106.54
3,100.0	0.10	231.79	3,099.1	56.2	19.3	19.8	0.13	0.01	-90.16
3,200.0	0.11	273.77	3,199.1	56.1	19.2	19.6	0.08	0.01	41.98
3,300.0	0.11	27.73	3,299.1	56.2	19.1	19.6	0.18	0.00	113.96
3,400.0	0.09	205.00	3,399.1	56.2	19.1	19.6	0.20	-0.02	177.27
3,500.0	0.05	303.68	3,499.1	56.2	19.1	19.5	0.11	-0.04	98.68
3,600.0	0.11	229.78	3,599.1	56.2	19.0	19.4	0.11	0.06	-73.90
3,700.0	0.10	219.26	3,699.1	56.0	18.8	19.3	0.02	-0.01	-10.52
3,800.0	0.10	164.77	3,799.1	55.9	18.8	19.2	0.09	0.00	-54.49
3,900.0	0.22	259.28	3,899.1	55.8	18.6	19.1	0.25	0.12	94.51
4,000.0	0.18	283.87	3,999.1	55.8	18.3	18.7	0.09	-0.04	24.59
4,100.0	0.24	232.07	4,099.1	55.7	18.0	18.4	0.19	0.06	-51.80
4,200.0	0.23	271.50	4,199.1	55.6	17.6	18.0	0.16	-0.01	39.43
4,300.0	0.23	238.67	4,299.1	55.5	17.2	17.7	0.13	0.00	-32.83
4,400.0	0.02	314.84	4,399.1	55.4	17.0	17.5	0.23	-0.21	76.17
4,500.0	0.11	200.82	4,499.1	55.3	17.0	17.4	0.12	0.09	-114.02
4,600.0	0.18	318.09	4,599.1	55.3	16.9	17.3	0.25	0.07	117.27
4,700.0	0.29	141.51	4,699.1	55.2	16.9	17.3	0.47	0.11	-176.58
4,800.0	0.10	170.14	4,799.1	54.9	17.1	17.5	0.21	-0.19	28.63
4,900.0	0.03	282.62	4,899.1	54.9	17.1	17.5	0.11	-0.07	112.48
5,000.0	0.06	334.19	4,999.1	54.9	17.0	17.4	0.05	0.03	51.57
5,100.0	0.27	149.22	5,099.1	54.8	17.1	17.5	0.33	0.21	175.03
5,200.0	0.12	229.20	5,199.1	54.5	17.2	17.6	0.28	-0.15	79.98

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
5,300.0	0.08	201.62	5,299.1	54.4	17.1	17.5	0.06	-0.04	-27.58
5,400.0	0.23	278.43	5,399.1	54.3	16.8	17.3	0.23	0.15	76.81
5,500.0	0.31	261.18	5,499.1	54.3	16.4	16.8	0.11	0.08	-17.25
5,600.0	0.37	201.03	5,599.1	54.0	16.0	16.4	0.34	0.06	-60.15
5,700.0	0.10	46.90	5,699.1	53.7	15.9	16.3	0.46	-0.27	-154.13
5,800.0	0.36	337.34	5,799.1	54.1	15.9	16.3	0.34	0.26	-69.56
5,900.0	0.32	278.31	5,899.1	54.4	15.5	15.9	0.34	-0.04	-59.03
6,000.0	0.28	259.59	5,999.1	54.4	15.0	15.4	0.11	-0.04	-18.72
6,100.0	0.17	277.37	6,099.1	54.4	14.6	15.0	0.13	-0.11	17.78
6,200.0	0.27	292.11	6,199.1	54.5	14.2	14.6	0.11	0.10	14.74
6,300.0	0.32	298.82	6,299.1	54.7	13.7	14.2	0.06	0.05	6.71
6,400.0	0.31	300.27	6,399.1	55.0	13.3	13.7	0.01	-0.01	1.45
6,500.0	0.24	355.26	6,499.1	55.3	13.0	13.4	0.26	-0.07	54.99
6,600.0	0.24	32.57	6,599.1	55.7	13.1	13.5	0.15	0.00	37.31
6,700.0	0.27	48.89	6,699.1	56.0	13.4	13.8	0.08	0.03	16.32
6,800.0	0.03	4.40	6,799.1	56.2	13.6	14.0	0.25	-0.24	-44.49
6,900.0	0.03	301.54	6,899.1	56.3	13.6	14.0	0.03	0.00	-62.86
Tie In @ 6960' MD / 6959' TVD									
6,960.0	0.25	327.03	6,959.1	56.4	13.5	13.9	0.37	0.37	42.48
7,063.0	1.90	88.90	7,062.1	56.6	15.1	15.5	1.98	1.60	118.32
7,095.0	5.80	97.00	7,094.0	56.4	17.2	17.6	12.28	12.19	25.31
7,127.0	9.30	97.00	7,125.7	55.9	21.4	21.8	10.94	10.94	0.00
7,158.0	11.90	95.40	7,156.2	55.3	27.0	27.5	8.44	8.39	-5.16
7,190.0	14.90	94.20	7,187.3	54.7	34.4	34.8	9.41	9.38	-3.75
7,222.0	18.20	93.30	7,218.0	54.1	43.5	43.9	10.34	10.31	-2.81
7,254.0	21.10	93.00	7,248.1	53.5	54.3	54.7	9.07	9.06	-0.94
7,285.0	23.60	94.20	7,276.8	52.8	66.0	66.4	8.20	8.06	3.87
7,317.0	25.40	97.90	7,305.9	51.3	79.2	79.6	7.39	5.63	11.56
7,349.0	27.50	97.70	7,334.6	49.4	93.3	93.7	6.57	6.56	-0.63
7,380.0	29.20	97.40	7,361.8	47.5	107.9	108.3	5.50	5.48	-0.97
7,412.0	31.30	96.50	7,389.5	45.5	123.9	124.3	6.71	6.56	-2.81
7,444.0	34.70	95.30	7,416.3	43.7	141.3	141.6	10.82	10.63	-3.75
Crossed 330' Hard Line @ 7451' MD / 7422' TVD									
7,451.4	35.42	95.07	7,422.4	43.4	145.5	145.8	9.83	9.67	-3.06
7,475.0	37.70	94.40	7,441.3	42.2	159.5	159.8	9.83	9.68	-2.85
7,507.0	41.00	93.80	7,466.1	40.8	179.7	180.1	10.38	10.31	-1.88
7,539.0	44.30	93.70	7,489.6	39.3	201.4	201.7	10.31	10.31	-0.31
7,571.0	47.80	93.30	7,511.8	37.9	224.4	224.7	10.97	10.94	-1.25
7,603.0	51.60	93.30	7,532.5	36.5	248.7	249.0	11.88	11.88	0.00
7,635.0	55.20	93.80	7,551.6	34.9	274.4	274.6	11.32	11.25	1.56
7,667.0	59.00	94.00	7,569.0	33.1	301.2	301.4	11.89	11.88	0.63
7,698.0	62.60	94.20	7,584.1	31.2	328.2	328.4	11.63	11.61	0.65
7,730.0	66.70	94.00	7,597.8	29.1	357.0	357.2	12.82	12.81	-0.63
7,762.0	70.40	93.50	7,609.5	27.2	386.7	386.9	11.65	11.56	-1.56

Survey Report



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Site:	Sec 36, T19S, R28E	MD Reference:	Well @ 3319.0usft (Patterson # 46)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
7,794.0	73.60	92.60	7,619.4	25.5	417.1	417.3	10.35	10.00	-2.81
7,825.0	77.60	91.90	7,627.1	24.4	447.1	447.3	13.09	12.90	-2.26
7,857.0	81.60	91.70	7,632.8	23.4	478.5	478.7	12.52	12.50	-0.63
7,870.0	83.30	91.60	7,634.5	23.0	491.4	491.6	13.10	13.08	-0.77
7,956.0	89.10	88.40	7,640.2	23.0	577.2	577.3	7.70	6.74	-3.72
7,988.0	89.30	87.30	7,640.7	24.2	609.2	609.3	3.49	0.63	-3.44
8,020.0	89.30	87.00	7,641.1	25.8	641.1	641.3	0.94	0.00	-0.94
8,082.0	89.50	85.90	7,641.7	29.7	703.0	703.2	1.80	0.32	-1.77
8,146.0	90.00	87.90	7,642.0	33.1	766.9	767.1	3.22	0.78	3.13
8,209.0	90.50	88.60	7,641.7	35.0	829.9	830.1	1.37	0.79	1.11
8,272.0	89.70	89.60	7,641.6	36.0	892.9	893.1	2.03	-1.27	1.59
8,335.0	88.90	90.00	7,642.4	36.2	955.8	956.1	1.42	-1.27	0.63
8,397.0	89.30	89.60	7,643.4	36.5	1,017.8	1,018.1	0.91	0.65	-0.65
8,459.0	89.40	89.30	7,644.1	37.1	1,079.8	1,080.1	0.51	0.16	-0.48
8,522.0	89.30	88.90	7,644.8	38.0	1,142.8	1,143.1	0.65	-0.16	-0.63
8,585.0	88.60	88.40	7,645.9	39.5	1,205.8	1,206.1	1.37	-1.11	-0.79
8,648.0	88.60	88.60	7,647.5	41.2	1,268.8	1,269.0	0.32	0.00	0.32
8,712.0	89.70	88.20	7,648.4	43.0	1,332.7	1,333.0	1.83	1.72	-0.63
8,775.0	90.80	88.10	7,648.2	45.0	1,395.7	1,396.0	1.75	1.75	-0.16
8,838.0	91.00	87.70	7,647.2	47.3	1,458.6	1,459.0	0.71	0.32	-0.63
8,901.0	89.70	89.10	7,646.8	49.1	1,521.6	1,521.9	3.03	-2.06	2.22
8,964.0	89.60	88.90	7,647.2	50.2	1,584.6	1,584.9	0.35	-0.16	-0.32
9,027.0	89.20	88.90	7,647.8	51.4	1,647.6	1,647.9	0.63	-0.63	0.00
9,091.0	88.60	88.90	7,649.1	52.6	1,711.6	1,711.9	0.94	-0.94	0.00
9,154.0	88.90	88.60	7,650.4	54.0	1,774.5	1,774.9	0.67	0.48	-0.48
9,217.0	89.40	88.10	7,651.4	55.8	1,837.5	1,837.9	1.12	0.79	-0.79
9,281.0	90.30	88.10	7,651.5	57.9	1,901.5	1,901.8	1.41	1.41	0.00
9,344.0	90.00	89.30	7,651.4	59.3	1,964.4	1,964.8	1.96	-0.48	1.90
9,407.0	89.20	90.70	7,651.8	59.3	2,027.4	2,027.8	2.56	-1.27	2.22
9,470.0	88.00	90.30	7,653.3	58.8	2,090.4	2,090.8	2.01	-1.90	-0.63
9,534.0	88.00	90.70	7,655.6	58.2	2,154.4	2,154.8	0.62	0.00	0.63
9,597.0	87.50	90.90	7,658.1	57.4	2,217.3	2,217.7	0.85	-0.79	0.32
9,660.0	88.60	90.00	7,660.2	56.9	2,280.3	2,280.6	2.26	1.75	-1.43
9,723.0	90.20	88.80	7,660.9	57.5	2,343.3	2,343.6	3.17	2.54	-1.90
9,787.0	91.40	88.10	7,660.0	59.3	2,407.2	2,407.6	2.17	1.88	-1.09
9,850.0	90.90	88.90	7,658.7	60.9	2,470.2	2,470.6	1.50	-0.79	1.27
9,913.0	90.10	89.80	7,658.2	61.6	2,533.2	2,533.6	1.91	-1.27	1.43
9,977.0	89.90	89.60	7,658.2	62.0	2,597.2	2,597.6	0.44	-0.31	-0.31
10,040.0	87.60	89.80	7,659.5	62.3	2,660.2	2,660.6	3.66	-3.65	0.32
10,104.0	88.00	90.00	7,662.0	62.4	2,724.1	2,724.5	0.70	0.63	0.31
10,167.0	88.30	89.80	7,664.0	62.5	2,787.1	2,787.5	0.57	0.48	-0.32
10,230.0	89.60	89.80	7,665.2	62.7	2,850.1	2,850.5	2.06	2.06	0.00
10,294.0	90.70	89.80	7,665.0	62.9	2,914.1	2,914.5	1.72	1.72	0.00

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Winchester 36 B2LI State #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3319.0usft (Patterson # 46)
Site:	Sec 36, T19S, R28E	MD Reference:	Well @ 3319.0usft (Patterson # 46)
Well:	Winchester 36 B2LI State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

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)
10,357.0	89.80	89.60	7,664.7	63.3	2,977.1	2,977.5	1.46	-1.43	-0.32
10,420.0	90.40	89.60	7,664.6	63.7	3,040.1	3,040.5	0.95	0.95	0.00
10,451.0	89.50	90.50	7,664.6	63.7	3,071.1	3,071.5	4.11	-2.90	2.90
10,514.0	90.20	91.60	7,664.8	62.5	3,134.1	3,134.4	2.07	1.11	1.75
10,577.0	89.30	92.60	7,665.1	60.2	3,197.0	3,197.4	2.14	-1.43	1.59
10,609.0	88.70	93.20	7,665.6	58.6	3,229.0	3,229.3	2.65	-1.88	1.88
10,641.0	89.90	93.20	7,666.0	56.8	3,260.9	3,261.3	3.75	3.75	0.00
10,671.0	88.00	93.20	7,666.6	55.1	3,290.9	3,291.2	6.33	-6.33	0.00
10,702.0	85.80	93.50	7,668.3	53.3	3,321.8	3,322.1	7.16	-7.10	0.97
10,734.0	84.80	94.00	7,670.9	51.3	3,353.6	3,353.9	3.49	-3.13	1.56
10,797.0	86.10	93.00	7,675.9	47.4	3,416.3	3,416.5	2.60	2.06	-1.59
10,829.0	88.20	91.70	7,677.5	46.1	3,448.2	3,448.5	7.72	6.56	-4.06
10,893.0	88.90	89.60	7,679.1	45.4	3,512.2	3,512.4	3.46	1.09	-3.28
10,956.0	89.30	88.80	7,680.1	46.3	3,575.2	3,575.4	1.42	0.63	-1.27
11,019.0	88.60	88.10	7,681.2	48.0	3,638.1	3,638.4	1.57	-1.11	-1.11
11,082.0	87.90	86.80	7,683.2	50.8	3,701.0	3,701.3	2.34	-1.11	-2.06
11,146.0	88.80	86.30	7,685.0	54.6	3,764.9	3,765.2	1.61	1.41	-0.78
11,208.0	90.00	86.70	7,685.7	58.4	3,826.8	3,827.1	2.04	1.94	0.65
11,272.0	89.90	86.30	7,685.7	62.3	3,890.6	3,891.0	0.64	-0.16	-0.63
11,336.0	90.20	87.00	7,685.7	66.0	3,954.5	3,954.9	1.19	0.47	1.09
11,399.0	89.90	86.70	7,685.6	69.5	4,017.4	4,017.9	0.67	-0.48	-0.48
11,463.0	89.60	87.00	7,685.9	73.0	4,081.3	4,081.8	0.66	-0.47	0.47
11,525.0	91.30	88.40	7,685.4	75.5	4,143.3	4,143.7	3.55	2.74	2.26
11,589.0	92.40	88.80	7,683.3	77.1	4,207.2	4,207.7	1.83	1.72	0.63
11,651.0	90.00	90.90	7,682.0	77.2	4,269.2	4,269.7	5.14	-3.87	3.39
11,714.0	88.60	90.30	7,682.8	76.6	4,332.2	4,332.7	2.42	-2.22	-0.95
11,746.0	88.10	89.30	7,683.7	76.7	4,364.2	4,364.6	3.49	-1.56	-3.13
11,778.0	87.70	89.10	7,684.9	77.1	4,396.2	4,396.6	1.40	-1.25	-0.63
11,841.0	87.80	89.30	7,687.4	78.0	4,459.1	4,459.6	0.35	0.16	0.32
11,905.0	88.70	88.80	7,689.3	79.1	4,523.1	4,523.5	1.61	1.41	-0.78
11,968.0	88.80	88.90	7,690.7	80.3	4,586.0	4,586.5	0.22	0.16	0.16
12,032.0	89.70	89.80	7,691.5	81.1	4,650.0	4,650.5	1.99	1.41	1.41
12,094.0	89.30	89.30	7,692.1	81.6	4,712.0	4,712.5	1.03	-0.65	-0.81
TD @ 12145' MD / 7693' TVD									
12,145.0	89.30	89.30	7,692.7	82.2	4,763.0	4,763.5	0.00	0.00	0.00

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Winchester 36 B2LI State #1H
Project:	Eddy County, New Mexico	TVD Reference:	Well @ 3319.0usft (Patterson # 46)
Site:	Sec 36, T19S, R28E	MD Reference:	Well @ 3319.0usft (Patterson # 46)
Well:	Winchester 36 B2LI State #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Compass

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,960.0	6,959.1	56.4	13.5	Tie In @ 6960' MD / 6959' TVD
7,451.4	7,422.4	43.4	145.5	Crossed 330' Hard Line @ 7451' MD / 7422' TVD
12,145.0	7,692.7	82.2	4,763.0	TD @ 12145' MD / 7693' TVD

Checked By: _____	Approved By: _____	Date: _____
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Operating Company Mewbourne Oil Co.
Well Name & Number Winchester 36 B2LI-1H
Sales Ticket Number 6945977

Company Rep OBED JIMENEZ
Field BONESPRING
BOT Service Rep ANTHONY THOMAS



Date 12/27/2014

District Location Odessa, TX

	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	7,920.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,430.00	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		0.00	KOP		7050.00	Open Hole		6.125	Casing Vol. (bbl)	294.5
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)
Liner Top	1	10292414	JR SLv w/ 4.75" Seal Bore	7695.82	4.00	5.750	3.913			

Zone Length	H409400008	S3 Hanger Packer	7699.82	4.65	5.875	3.875		1670		
	H299900281	4-1/2"(LT&C x LT&C) collar	7704.47	0.58	5.000	3.920				
	H299710012	4-1/2 13.5# P110 LT&C CSG Nipple	7705.05	5.52	4.500	3.920				
		[7] 4-1/2" 13.5# P110 LT&C Joints	7710.57	295.06	4.500	3.920				
	H810090200	3.500" EXPress Slv (Zone 20)	8005.63	2.40	5.750		3.400	2286	289	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	8008.03	84.52	4.500	3.920				
	H409360008	582 OH Packer#19	8092.55	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	8096.44	126.80	4.500	3.920				
	H810090199	3.438" EXPress Slv (Zone 19)	8223.24	2.40	5.750		3.385	2286	286	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	8225.64	82.70	4.500	3.920				
	H409360008	582 OH Packer#18	8308.34	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	8312.23	126.15	4.500	3.920				
	H810090198	3.375" EXPress Slv (Zone 18)	8438.38	2.40	5.750		3.275	2286	268	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	8440.78	84.82	4.500	3.920				
	H409360008	582 OH Packer#17	8525.60	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	8529.49	126.00	4.500	3.920				
	H810090197	3.313" EXPress Slv (Zone 17)	8655.49	2.40	5.750		3.260	2286	265	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	8657.89	84.69	4.500	3.920				
	H409360008	582 OH Packer#16	8742.58	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	8746.47	127.06	4.500	3.920				
	H810090196	3.250" EXPress Sleeve (Zone 16)	8873.53	2.40	5.750		3.150	2286	248	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	8875.93	84.89	4.500	3.920				

Operating Company Mewbourne Oil Co.
Well Name & Number Winchester 36 B2LI-1H
Sales Ticket Number 6945977
Date 12/27/2014

Company Rep OBED JIMENEZ
Field BONESPRING
BOT Service Rep ANTHONY THOMAS
District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse		
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	7,920.00	9,960	6,230		
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,430.00	12,410	10,690		
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-		
TVD		0.00		KOP		7050.00		Open Hole		6.125	Casing Vol. (bbl)	294.5
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)
	H409360008	582 OH Packer#15	8960.82	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	8964.71	126.14	4.500	3.920				
	H810090195	3.188" EXPress Slv (Zone 15)	9090.85	2.40	5.750		3.135	2286	245	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	9093.25	84.20	4.500	3.920				
	H409360008	582 OH Packer#14	9177.45	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	9181.34	125.72	4.500	3.920				
	H810090194	3.125" EXPress Slv (Zone 14)	9307.06	2.40	5.750		3.025	2286	228	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	9309.46	82.39	4.500	3.920				
	H409360008	582 OH Packer#13	9391.85	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	9395.74	125.68	4.500	3.920				
	H810090193	3.063" EXPress Slv (Zone 13)	9521.42	2.40	5.750		3.010	2286	226	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	9523.82	84.54	4.500	3.920				
	H409360008	582 OH Packer#12	9608.36	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	9612.25	126.45	4.500	3.920				
	H810090192	3.00" EXPress Slv (Zone 12)	9738.70	2.40	5.750		2.900	2286	210	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	9741.10	83.92	4.500	3.920				
	H409360008	582 OH Packer#11	9825.02	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	9828.91	126.65	4.500	3.920				
	H810090191	2.938" EXPress Slv (Zone 11)	9955.56	2.40	5.750		2.885	2286	208	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	9957.96	84.80	4.500	3.920				
	H409360008	582 OH Packer#10	10042.76	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	10046.65	126.20	4.500	3.920				
	H810090190	2.875" EXPress Slv (Zone 10)	10172.85	2.40	5.750		2.775	2286	192	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	10175.25	84.70	4.500	3.920				
	H409360008	582 OH Packer#9	10259.95	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	10263.84	126.28	4.500	3.920				

Operating Company Mewbourne Oil Co.
Well Name & Number Winchester 36 B2LI-1H
Sales Ticket Number 6945977
Date 12/27/2014

Company Rep OBED JIMENEZ
Field BONESPRING
BOT Service Rep ANTHONY THOMAS
District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	LTC / 8RD	0.03826	7,920.00	9,960	6,230
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,430.00	12,410	10,690
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		0.00	KOP		7050.00	Open Hole		6.125	Casing Vol. (bbl)	294.5
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)
	H810090189	2.813" EXPress Slv (Zone 9)	10390.12	2.40	5.750		2.760	2286	190	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	10392.52	83.52	4.500	3.920				
	H409360008	582 OH Packer#8	10476.04	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	10479.93	126.30	4.500	3.920				
	H810090188	2.750" EXPress Slv (Zone 8)	10606.23	2.40	5.750		2.650	2286	175	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	10608.63	84.52	4.500	3.920				
	H409360008	582 OH Packer#7	10693.15	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	10697.04	126.14	4.500	3.920				
	H810090187	2.688" EXPress Slv (Zone 7)	10823.18	2.40	5.750		2.635	2286	173	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	10825.58	84.56	4.500	3.920				
	H409360008	582 OH Packer#6	10910.14	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	10914.03	126.82	4.500	3.920				
	H810090186	2.625" EXPress Slv (Zone 6)	11040.85	2.40	5.750		2.525	2286	159	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	11043.25	84.52	4.500	3.920				
	H409360008	582 OH Packer#5	11127.77	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	11131.66	122.12	4.500	3.920				
	H810090185	2.563" EXPress Slv (Zone 5)	11253.78	2.40	5.750		2.510	2286	157	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	11256.18	84.49	4.500	3.920				
	H409360008	582 OH Packer#4	11340.67	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	11344.56	126.82	4.500	3.920				
	H810090184	2.500" EXPress Slv (Zone 4)	11471.38	2.40	5.750		2.400	2286	144	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	11473.78	83.89	4.500	3.920				
	H409360008	582 OH Packer#3	11557.67	3.89	5.820	3.875		2154		
		[3] 4-1/2" 13.5# P110 LT&C Joints	11561.56	126.77	4.500	3.920				
	H810090183	2.438" EXPress Slv (Zone 3)	11688.33	2.40	5.750		2.385	2286	142	294
		[2] 4-1/2" 13.5# P110 LT&C Joints	11690.73	83.22	4.500	3.920				

Company Rep	OBED JIMENEZ
Field	BONESPRING
BOT Service Rep	ANTHONY THOMAS
District Location	Odessa, TX



Carry Fluid Weight (ppg)	8.4	Propant Content (ppa)		Max Drill Out Size	0
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[illegible]

Company Name: Mewbourne Oil Co
 Winchester 36 B2LI State #1H
 Eddy County, New Mexico
 Rig: Patterson # 46
 Created By: Kaleigh DeCordova
 Date: 3/2/2015

Winchester 36 B2LI State #1H
 Eddy County, New Mexico
Q141356 & WT-141280
 Design #2 (Tie In)

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: Winchester 36 B2LI State #1H

Ground Level:		3299.0	
+N/-S	+E/-W	North	East
0.0	0.0	587652.80	560167.20

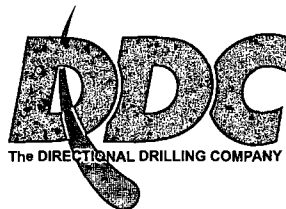


Azimuths to Grid North

Correction: 7.37°

Magnetic Field
 Strength: 48460.9snT
 Dip Angle: 60.37°
 Date: 10/2/2014
 Model: IGRF2010

Mewbourne Oil Company



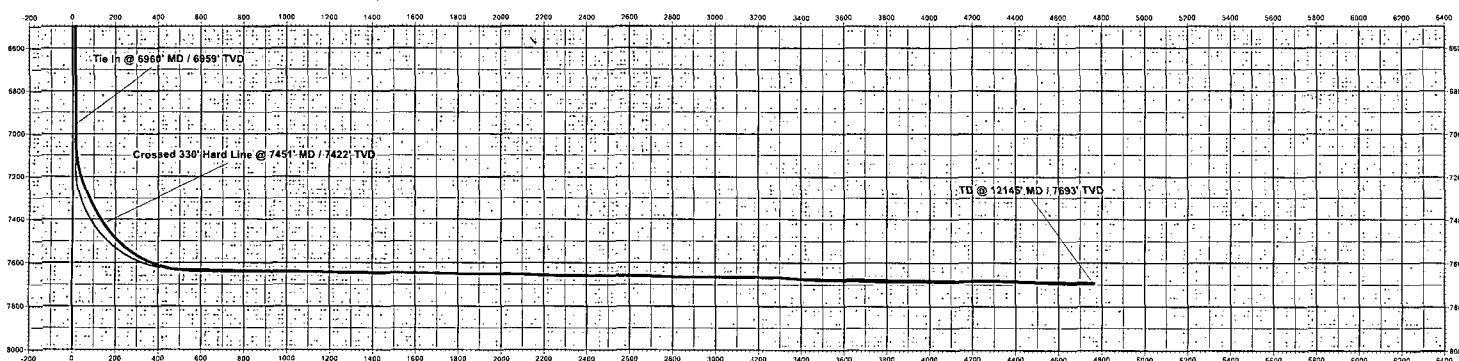
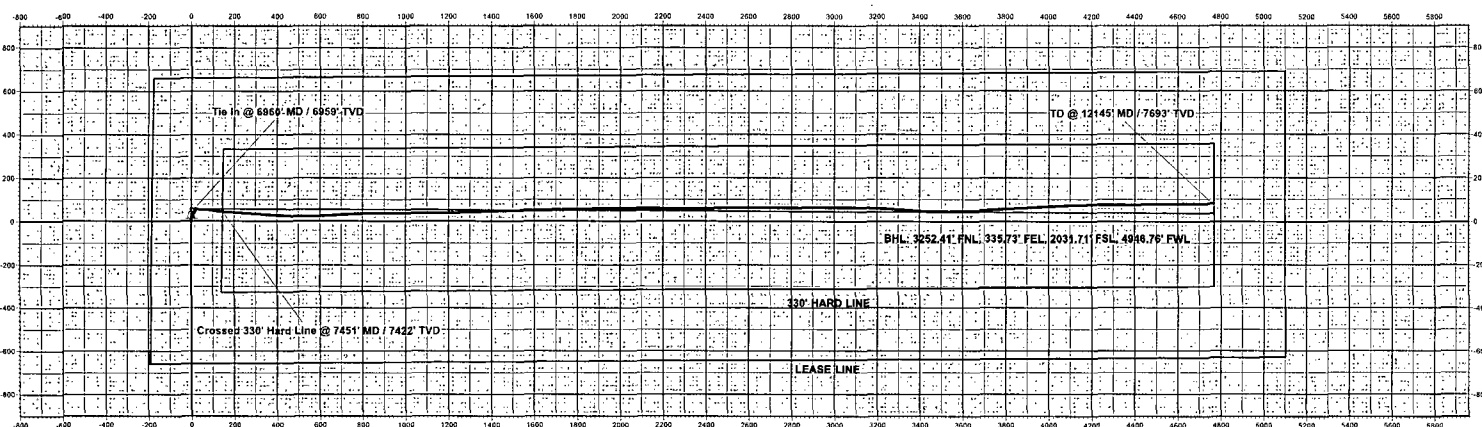
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	Easting	Latitude	Longitude
PBHL Winchester 36 B2LI State #1H	7689.0	36.5	4768.9	587689.32	564936.10	32° 36' 55.746 N	104° 7' 20.776 W

- plan hits target center

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
6960.0	0.25	327.83	6959.1	56.4	13.5	13.9	77.3	Tie In @ 6960' MD / 6959' TVD
7451.4	35.42	95.07	7422.4	43.4	145.5	210.5	210.5	Crossed 330' Hard Line @ 7451' MD / 7422' TVD
12145.0	89.30	89.30	7692.7	82.2	4763.0	4763.5	4830.6	TD @ 12145' MD / 7693' TVD



Vertical Section at 89.56° (200 usft/in)