

30-015-40303

Mewbourne Oil Co

Eddy County, New Mexico

Sec 24-T19S-R25E

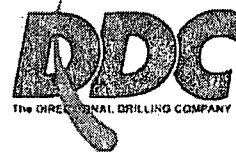
Wyatt Draw 13 NC #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

18 February, 2013



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Wyatt Draw 13 NC #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3435.0usft (Patterson #41)
Site:	Sec 24-T19S-R25E	MD Reference:	WELL @ 3435.0usft (Patterson #41)
Well:	Wyatt Draw 13 NC #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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

Site	Sec 24-T19S-R25E		
Site Position:		Northing:	597,128.75 usft
From:	Map	Easting:	466,881.19 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 38' 29.628 N
		Longitude:	104° 26' 27.333 W
		Grid Convergence:	-0.06 °

Well	Wyatt Draw 13 NC #1H		
Well Position	+N/-S	0.0 usft	Northing: 601,230.08 usft
	+E/-W	0.0 usft	Easting: 466,976.18 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 39' 10.214 N
		Longitude:	104° 26' 26.271 W
		Ground Level:	3,416.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	1/10/2013	7.82
			Dip Angle
			60.39
			Field Strength
			48.620

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
			(°)
			358.61

Survey Program	Date: 2/18/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	2,070.0	Gyro (Wellbore #1)	Good_gyro
2,175.0	7,564.0	MWD (Wellbore #1)	MWD default
			Description
			Good Gyro
			MWD - Standard

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.52	239.06	100.0	-0.2	-0.4	-0.2	0.52	0.52	0.00
200.0	1.07	253.09	200.0	-0.7	-1.7	-0.7	0.58	0.55	14.03
300.0	1.40	244.19	300.0	-1.5	-3.7	-1.5	0.38	0.33	-8.90
400.0	1.72	250.22	399.9	-2.6	-6.2	-2.4	0.36	0.32	6.03
500.0	1.79	262.63	499.9	-3.3	-9.1	-3.1	0.39	0.07	12.41
600.0	1.87	248.58	599.8	-4.1	-12.2	-3.8	0.45	0.08	-14.05
700.0	1.60	230.00	699.8	-5.6	-14.8	-5.2	0.62	-0.27	-18.58
800.0	1.30	248.41	799.8	-6.9	-16.9	-6.5	0.55	-0.30	18.41
900.0	1.15	262.27	899.7	-7.4	-19.0	-7.0	0.33	-0.15	13.86

DDC Survey Report



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Well:	Wyatt Draw 13 NC #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.89	247.76	999.7	-7.9	-20.7	-7.4	0.36	-0.26	-14.51
1,100.0	0.74	252.31	1,099.7	-8.4	-22.0	-7.8	0.16	-0.15	4.55
1,200.0	0.70	257.26	1,199.7	-8.7	-23.2	-8.1	0.07	-0.04	4.95
1,300.0	0.85	284.24	1,299.7	-8.6	-24.5	-8.1	0.39	0.15	26.98
1,400.0	0.77	243.37	1,399.7	-8.8	-25.9	-8.1	0.57	-0.08	-40.87
1,500.0	0.42	267.37	1,499.7	-9.1	-26.8	-8.4	0.42	-0.35	24.00
1,600.0	0.36	241.05	1,599.7	-9.3	-27.5	-8.6	0.19	-0.06	-26.32
1,700.0	0.31	243.90	1,699.7	-9.5	-28.0	-8.8	0.05	-0.05	2.85
1,800.0	0.24	203.77	1,799.7	-9.8	-28.3	-9.1	0.20	-0.07	-40.13
1,900.0	0.39	195.18	1,899.7	-10.4	-28.5	-9.7	0.16	0.15	-8.59
2,000.0	0.57	210.01	1,999.7	-11.1	-28.8	-10.4	0.22	0.18	14.83
TIE IN @ 2070' MD / 2070' TVD									
2,070.0	0.83	207.75	2,069.7	-11.9	-29.2	-11.2	0.37	0.37	-3.23
2,175.0	2.40	215.70	2,174.6	-14.3	-30.9	-13.6	1.51	1.50	7.57
2,207.0	2.20	240.40	2,206.6	-15.2	-31.8	-14.4	3.13	-0.63	77.19
2,239.0	2.50	323.80	2,238.6	-14.9	-32.7	-14.1	9.79	0.94	260.63
2,270.0	6.70	343.50	2,269.5	-12.6	-33.7	-11.8	14.28	13.55	63.55
2,302.0	12.40	348.60	2,301.0	-7.5	-34.9	-6.6	17.99	17.81	15.94
2,333.0	18.70	350.90	2,330.9	0.7	-36.3	1.6	20.42	20.32	7.42
2,365.0	24.40	355.70	2,360.6	12.4	-37.6	13.3	18.63	17.81	15.00
2,397.0	27.50	357.20	2,389.4	26.3	-38.5	27.3	9.90	9.69	4.69
2,428.0	29.80	358.20	2,416.6	41.2	-39.1	42.1	7.58	7.42	3.23
2,460.0	32.80	0.30	2,443.9	57.8	-39.3	58.8	9.97	9.38	6.56
2,492.0	35.90	2.20	2,470.3	75.9	-38.9	76.8	10.25	9.69	5.94
2,523.0	39.30	2.90	2,494.9	94.8	-38.0	95.7	11.05	10.97	2.26
2,555.0	42.20	2.70	2,519.1	115.6	-37.0	116.5	9.07	9.06	-0.63
2,587.0	44.80	2.30	2,542.4	137.6	-36.0	138.5	8.17	8.13	-1.25
2,619.0	47.40	2.10	2,564.5	160.7	-35.2	161.5	8.14	8.13	-0.63
2,655.0	50.60	3.30	2,588.2	187.8	-33.9	188.6	9.24	8.89	3.33
2,684.0	53.60	3.50	2,606.0	210.6	-32.5	211.4	10.36	10.34	0.69
CROSSED LEASE LINE @ 2706' MD / 2619' TVD									
2,705.6	55.69	3.50	2,618.5	228.2	-31.4	228.9	9.69	9.69	0.00
2,716.0	56.70	3.50	2,624.2	236.8	-30.9	237.5	9.69	9.69	0.00
2,747.0	60.90	2.60	2,640.3	263.3	-29.5	264.0	13.77	13.55	-2.90
2,779.0	64.90	1.60	2,654.9	291.8	-28.5	292.4	12.81	12.50	-3.13
2,811.0	66.50	0.50	2,668.0	320.9	-27.9	321.5	5.90	5.00	-3.44
2,843.0	67.90	0.50	2,680.4	350.4	-27.7	351.0	4.38	4.38	0.00
2,874.0	70.30	0.80	2,691.5	379.4	-27.3	379.9	7.79	7.74	0.97
2,905.0	74.00	0.50	2,701.0	408.9	-27.0	409.4	11.97	11.94	-0.97
2,937.0	75.80	359.40	2,709.3	439.8	-27.0	440.3	6.53	5.63	-3.44
2,969.0	78.00	359.80	2,716.6	471.0	-27.3	471.5	6.98	6.88	1.25
3,000.0	81.10	0.10	2,722.2	501.4	-27.3	501.9	10.05	10.00	0.97
3,032.0	84.10	0.70	2,726.3	533.2	-27.1	533.7	9.56	9.38	1.88

DDC Survey Report



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Well:	Wyatt Draw 13 NC #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)
CROSSED HARD LINE @ 3057' MD / 2729' TVD									
3,057.2	85.73	1.43	2,728.6	558.3	-26.6	558.7	7.07	6.45	2.90
3,063.0	86.10	1.60	2,729.0	564.0	-26.4	564.5	7.07	6.45	2.90
3,095.0	88.10	2.10	2,730.6	596.0	-25.4	596.4	6.44	6.25	1.56
3,127.0	89.60	2.30	2,731.2	628.0	-24.2	628.4	4.73	4.69	0.63
3,158.0	89.80	2.30	2,731.4	658.9	-22.9	659.3	0.65	0.65	0.00
3,190.0	89.70	2.30	2,731.5	690.9	-21.7	691.2	0.31	-0.31	0.00
3,253.0	89.60	2.10	2,731.9	753.9	-19.2	754.1	0.35	-0.16	-0.32
3,316.0	90.20	2.40	2,732.0	816.8	-16.8	817.0	1.06	0.95	0.48
3,380.0	90.10	3.00	2,731.9	880.7	-13.7	880.8	0.95	-0.16	0.94
3,443.0	90.10	1.60	2,731.8	943.7	-11.2	943.7	2.22	0.00	-2.22
3,507.0	90.10	359.80	2,731.7	1,007.7	-10.4	1,007.6	2.81	0.00	-2.81
3,569.0	90.00	358.90	2,731.6	1,069.7	-11.1	1,069.6	1.46	-0.16	-1.45
3,633.0	89.50	359.40	2,731.9	1,133.7	-12.1	1,133.6	1.10	-0.78	0.78
3,696.0	90.60	358.70	2,731.8	1,196.6	-13.1	1,196.6	2.07	1.75	-1.11
3,759.0	90.20	358.90	2,731.4	1,259.6	-14.5	1,259.6	0.71	-0.63	0.32
3,822.0	89.60	359.10	2,731.5	1,322.6	-15.6	1,322.6	1.00	-0.95	0.32
3,886.0	90.70	358.60	2,731.3	1,386.6	-16.8	1,386.6	1.89	1.72	-0.78
3,949.0	90.50	358.00	2,730.7	1,449.6	-18.7	1,449.6	1.00	-0.32	-0.95
4,012.0	90.30	358.20	2,730.2	1,512.5	-20.8	1,512.6	0.45	-0.32	0.32
4,076.0	90.10	358.20	2,730.0	1,576.5	-22.8	1,576.6	0.31	-0.31	0.00
4,139.0	90.70	357.70	2,729.6	1,639.5	-25.1	1,639.6	1.24	0.95	-0.79
4,234.0	89.70	357.00	2,729.2	1,734.4	-29.5	1,734.6	1.28	-1.05	-0.74
4,329.0	91.50	358.40	2,728.2	1,829.3	-33.3	1,829.5	2.40	1.89	1.47
4,424.0	90.90	358.40	2,726.2	1,924.2	-35.9	1,924.5	0.63	-0.63	0.00
4,518.0	90.40	358.70	2,725.2	2,018.2	-38.3	2,018.5	0.62	-0.53	0.32
4,613.0	90.40	0.00	2,724.5	2,113.2	-39.4	2,113.5	1.37	0.00	1.37
4,708.0	90.10	359.40	2,724.1	2,208.2	-39.9	2,208.5	0.71	-0.32	-0.63
4,804.0	90.00	358.90	2,724.0	2,304.2	-41.3	2,304.5	0.53	-0.10	-0.52
4,899.0	90.10	359.40	2,723.9	2,399.1	-42.7	2,399.5	0.54	0.11	0.53
4,993.0	90.60	358.60	2,723.4	2,493.1	-44.3	2,493.5	1.00	0.53	-0.85
5,088.0	90.30	358.70	2,722.6	2,588.1	-46.6	2,588.5	0.33	-0.32	0.11
5,183.0	90.70	358.60	2,721.8	2,683.1	-48.8	2,683.5	0.43	0.42	-0.11
5,278.0	91.30	359.10	2,720.1	2,778.0	-50.7	2,778.4	0.82	0.63	0.53
5,373.0	92.90	359.80	2,716.6	2,873.0	-51.6	2,873.4	1.84	1.68	0.74
5,466.0	90.40	0.00	2,714.0	2,965.9	-51.8	2,966.3	2.70	-2.69	0.22
5,561.0	90.30	359.30	2,713.4	3,060.9	-52.4	3,061.3	0.74	-0.11	-0.74
5,656.0	89.30	358.90	2,713.7	3,155.9	-53.9	3,156.3	1.13	-1.05	-0.42
5,751.0	88.90	359.40	2,715.2	3,250.9	-55.3	3,251.3	0.67	-0.42	0.53
5,846.0	88.40	359.30	2,717.5	3,345.8	-56.4	3,346.2	0.54	-0.53	-0.11
5,941.0	88.50	359.80	2,720.0	3,440.8	-57.1	3,441.2	0.54	0.11	0.53
6,036.0	90.00	358.70	2,721.3	3,535.8	-58.3	3,536.2	1.96	1.58	-1.16
6,131.0	90.40	358.20	2,720.9	3,630.7	-60.9	3,631.2	0.67	0.42	-0.53
6,226.0	90.70	357.70	2,720.0	3,725.7	-64.3	3,726.1	0.61	0.32	-0.53

DDC
Survey Report



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Site:	Sec 24-T19S-R25E	MD Reference:	WELL @ 3435.0usft (Patterson #41)
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6,321.0	90.60	357.50	2,718.9	3,820.6	-68.3	3,821.1	0.24	-0.11	-0.21
6,416.0	91.20	357.20	2,717.5	3,915.5	-72.7	3,916.1	0.71	0.63	-0.32
6,511.0	91.00	357.30	2,715.6	4,010.4	-77.2	4,011.0	0.24	-0.21	0.11
6,606.0	90.70	357.90	2,714.2	4,105.3	-81.2	4,106.0	0.71	-0.32	0.63
6,701.0	90.10	357.90	2,713.6	4,200.2	-84.7	4,201.0	0.63	-0.63	0.00
6,795.0	90.50	357.30	2,713.1	4,294.1	-88.6	4,295.0	0.77	0.43	-0.64
6,891.0	90.00	357.90	2,712.6	4,390.0	-92.7	4,391.0	0.81	-0.52	0.63
6,985.0	90.80	357.90	2,712.0	4,484.0	-96.1	4,485.0	0.85	0.85	0.00
7,080.0	90.30	358.90	2,711.1	4,578.9	-98.8	4,580.0	1.18	-0.53	1.05
7,175.0	90.90	359.40	2,710.1	4,673.9	-100.2	4,675.0	0.82	0.63	0.53
7,270.0	91.00	359.80	2,708.5	4,768.9	-100.8	4,769.9	0.43	0.11	0.42
7,364.0	90.70	0.80	2,707.1	4,862.9	-100.3	4,863.9	1.11	-0.32	1.06
7,459.0	90.40	1.00	2,706.2	4,957.9	-98.8	4,958.8	0.38	-0.32	0.21
7,516.0	90.30	0.80	2,705.9	5,014.8	-97.9	5,015.7	0.39	-0.18	-0.35
TD @ 7564' MD / 2706' TVD									
7,564.0	90.30	0.80	2,705.6	5,062.8	-97.3	5,063.7	0.00	0.00	0.00

Design Annotations

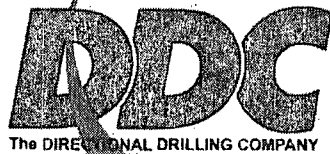
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,070.0	2,069.7	-11.9	-29.2	TIE IN @ 2070' MD / 2070' TVD
2,705.6	2,618.5	228.2	-31.4	CROSSED LEASE LINE @ 2706' MD / 2619' TVD
3,057.2	2,728.6	558.3	-26.6	CROSSED HARD LINE @ 3057' MD / 2729' TVD
7,564.0	2,705.6	5,062.8	-97.3	TD @ 7564' MD / 2706' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mewbourne Oil Co
Wyatt Draw 13 NC #1H
Eddy County, New Mexico
Rlg: Patterson #41
Created By: Dino Chance
Date: 2/18/2013

Wyatt Draw 13 NC #1H
Eddy County, New Mexico
Q130035 & WT-13078
Design #2

Mewbourne Oil Company



Azimuths to Grid North
Magnetic North: 7.88°

Magnetic Field
Strength: 48620.0snT
Dip Angle: 60.39°
Date: 1/10/2013
Model: IGRF2010

PROJECT DETAILS: Eddy County, New Mexico

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

WELL DETAILS: Wyatt Draw 13 NC #1H

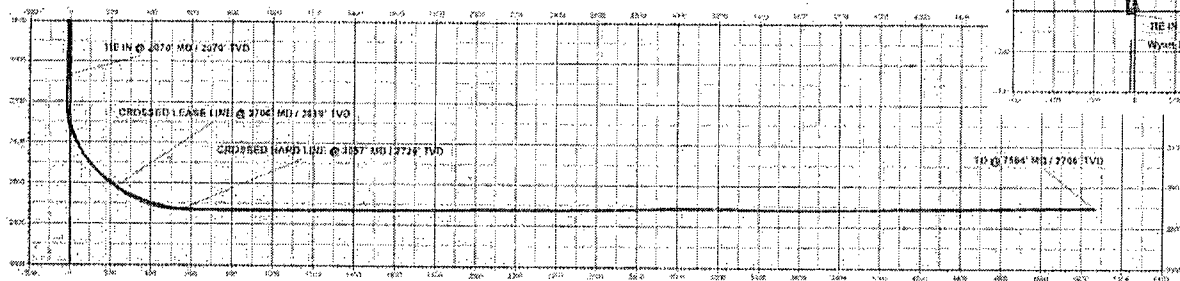
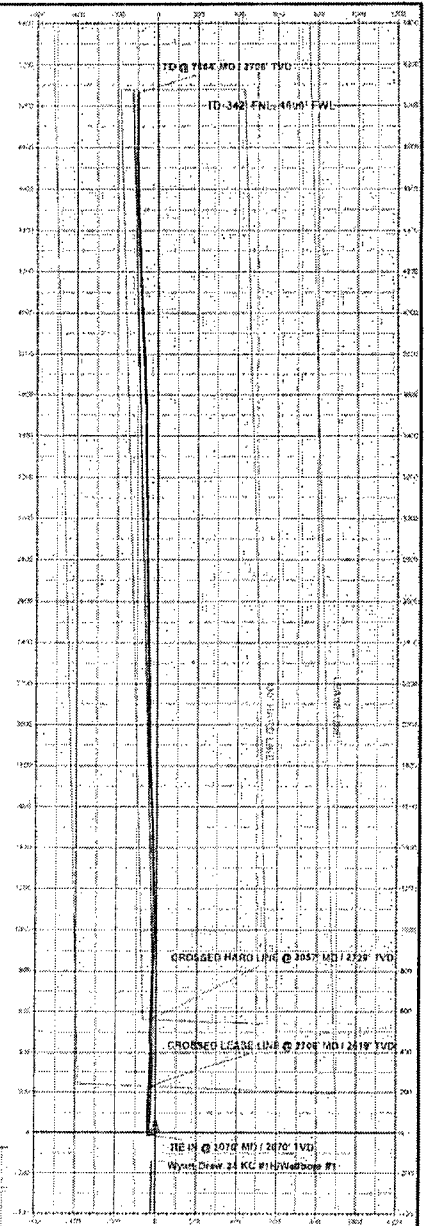
Ground Level: 3416.0
Northing: 601240.01 Easting: 466952.86
Latitude: 32° 39' 10.244 N Longitude: 104° 25' 57.746 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Nothing	Easting	Latitude	Longitude
PB-HL Wyatt Draw 13 NC #1H Design #1 - plan little target center	2706.0	574.7	-152.7	466304.78	466952.86	32° 40' 0.452 N	104° 25' 57.746 W

ANNOTATIONS

MD	Inc	AH	TVD	+N/-S	+E/-W	Vsct	Departure	Annotation
2706.0	0.80	207.76	2044.7	-11.9	-25.2	-11.2	12.9	TIE IN @ 2670' MD / 2674' TVD
2706.6	66.64	3.49	2706.6	232.2	-31.4	238.9	260.5	CROSSED LEASE LINE @ 2706' MD / 2618' TVD
3067.7	66.73	1.44	2726.6	858.3	-28.8	658.7	612.6	CROSSED HARD LINE @ 3067' MD / 2728' TVD
7654.0	80.30	0.80	2706.6	6042.8	-37.3	6063.7	6111.3	TD @ 7654' MD / 2706' TVD



Vertical Section at 350 01' (200 us/in)