

Mewbourne Oil Co

Eddy County, New Mexico

Sec 5/8-20S-25E

West Draw 5-8 PH Federal Com #1H

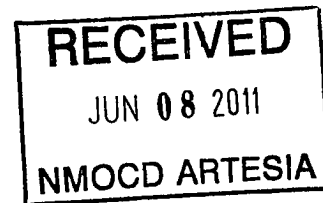
30-015-38674

Wellbore #1

Survey: West Draw 5-8 PH Fed Com #1H

DDC Survey Report

04 May, 2011



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well West Draw 5-8 PH Federal Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3515.0usft (Patterson UTI #101)
Site:	Sec 5/8-20S-25E	MD Reference:	WELL @ 3515.0usft (Patterson UTI #101)
Well:	West Draw 5-8 PH Federal 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 5/8-20S-25E

Site Position:		Northing:	581,788.42 usft	Latitude:	32° 35' 57.595 N
From:	Map	Easting:	448,939.93 usft	Longitude:	104° 29' 56.881 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.09 °

Well:	West Draw 5-8 PH Federal Com #1H					
Well Position	+N/-S	0.0 usft	Northing:	581,788.42 usft	Latitude:	32° 35' 57.595 N
	+E/-W	0.0 usft	Easting:	448,939.93 usft	Longitude:	104° 29' 56.881 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,496.0 usft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/21/2011	8.06	60.38	48,751

Design:	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	179.88

Survey Program		Date	5/4/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	1,826.0	VES Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro	
1,864.0	6,030.0	West Draw 5-8 PH Fed Com #1H (Wellbor	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 to Gyro									
1,826.0	1.11	147.38	1,825.5	-20.7	26.1	20.8	0.00	0.00	0.00
1,864.0	1.30	145.80	1,863.5	-21.4	26.5	21.5	0.51	0.50	-4.16
1,895.0	1.30	148.50	1,894.5	-22.0	26.9	22.1	0.20	0.00	8.71
1,926.0	2.40	182.90	1,925.5	-23.0	27.0	23.0	4.89	3.55	110.97
1,957.0	4.80	193.80	1,956.4	-24.9	26.7	24.9	8.02	7.74	35.16
1,989.0	8.10	201.50	1,988.2	-28.3	25.6	28.3	10.64	10.31	24.06
2,020.0	11.30	199.60	2,018.8	-33.2	23.7	33.2	10.37	10.32	-6.13
2,052.0	14.60	197.50	2,049.9	-40.0	21.5	40.0	10.42	10.31	-6.56
2,083.0	17.70	193.90	2,079.7	-48.3	19.2	48.3	10.50	10.00	-11.61

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 5/8-20S-25E
Well: West Draw 5-8 PH Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well West Draw 5-8 PH Federal Com #1H
TVD Reference: WELL @ 3515.0usft (Patterson UTI #101)
MD Reference: WELL @ 3515.0usft (Patterson UTI #101)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,115.0	20.40	191.10	2,110.0	-58.5	16.9	58.5	8.91	8.44	-8.75
2,145.0	23.30	188.30	2,137.8	-69.5	15.1	69.5	10.27	9.67	-9.33
2,177.0	26.10	187.60	2,166.9	-82.7	13.2	82.7	8.80	8.75	-2.19
2,208.0	29.10	186.60	2,194.3	-97.0	11.4	97.0	9.79	9.68	-3.23
2,240.0	32.30	186.00	2,221.8	-113.2	9.7	113.2	10.05	10.00	-1.88
2,271.0	35.20	185.90	2,247.6	-130.3	7.9	130.3	9.36	9.35	-0.32
2,302.0	38.10	185.10	2,272.5	-148.7	6.1	148.7	9.48	9.35	-2.58
2,333.0	40.70	184.30	2,296.4	-168.3	4.5	168.4	8.55	8.39	-2.58
2,365.0	43.20	183.90	2,320.2	-189.7	3.0	189.7	7.86	7.81	-1.25
2,396.0	45.80	183.20	2,342.3	-211.4	1.6	211.4	8.54	8.39	-2.26
2,428.0	47.70	183.40	2,364.3	-234.6	0.3	234.6	5.95	5.94	0.63
2,460.0	50.30	183.50	2,385.3	-258.7	-1.2	258.7	8.13	8.13	0.31
2,491.0	53.00	183.10	2,404.5	-283.0	-2.6	283.0	8.77	8.71	-1.29
2,523.0	55.50	182.90	2,423.2	-308.9	-3.9	308.9	7.83	7.81	-0.63
2,554.0	58.50	182.70	2,440.1	-334.9	-5.2	334.9	9.69	9.68	-0.65
2,586.0	62.10	183.90	2,455.9	-362.6	-6.8	362.6	11.71	11.25	3.75
2,618.0	65.40	184.80	2,470.1	-391.3	-9.0	391.2	10.62	10.31	2.81
2,648.0	69.00	184.30	2,481.7	-418.8	-11.2	418.8	12.10	12.00	-1.67
2,680.0	73.10	182.90	2,492.1	-449.0	-13.1	449.0	13.46	12.81	-4.38
2,712.0	78.20	181.50	2,500.0	-480.0	-14.3	480.0	16.49	15.94	-4.38
2,743.0	82.30	180.80	2,505.3	-510.5	-14.9	510.5	13.41	13.23	-2.26
Crossed Hard Line @ 2751' MD									
2,751.0	83.50	180.61	2,506.3	-518.5	-15.0	518.4	15.17	15.00	-2.32
2,769.0	86.20	180.20	2,507.9	-536.4	-15.1	536.4	15.17	15.00	-2.30
2,853.0	88.00	179.20	2,512.1	-620.3	-14.7	620.2	2.45	2.14	-1.19
2,885.0	89.60	180.00	2,512.8	-652.3	-14.4	652.2	5.59	5.00	2.50
2,917.0	89.70	180.00	2,513.0	-684.3	-14.4	684.2	0.31	0.31	0.00
2,948.0	90.80	178.60	2,512.9	-715.3	-14.0	715.2	5.74	3.55	-4.52
3,012.0	92.20	179.40	2,511.2	-779.2	-12.9	779.2	2.52	2.19	1.25
3,074.0	91.40	180.00	2,509.2	-841.2	-12.6	841.2	1.61	-1.29	0.97
3,138.0	90.60	179.40	2,508.1	-905.2	-12.3	905.2	1.56	-1.25	-0.94
3,201.0	91.70	179.30	2,506.9	-968.2	-11.6	968.1	1.75	1.75	-0.16
3,265.0	91.20	179.00	2,505.2	-1,032.1	-10.6	1,032.1	0.91	-0.78	-0.47
3,329.0	90.60	178.90	2,504.2	-1,096.1	-9.4	1,096.1	0.95	-0.94	-0.16
3,393.0	91.70	179.70	2,502.9	-1,160.1	-8.7	1,160.1	2.13	1.72	1.25
3,456.0	91.40	179.80	2,501.2	-1,223.1	-8.4	1,223.1	0.50	-0.48	0.16
3,520.0	90.80	179.60	2,500.0	-1,287.1	-8.0	1,287.0	0.99	-0.94	-0.31
3,584.0	90.30	179.00	2,499.4	-1,351.1	-7.3	1,351.0	1.22	-0.78	-0.94
3,646.0	90.60	180.30	2,498.9	-1,413.1	-6.9	1,413.0	2.15	0.48	2.10
3,710.0	90.10	180.50	2,498.5	-1,477.1	-7.3	1,477.0	0.84	-0.78	0.31
3,773.0	89.30	180.00	2,498.8	-1,540.1	-7.6	1,540.0	1.50	-1.27	-0.79
3,837.0	90.00	180.30	2,499.2	-1,604.0	-7.8	1,604.0	1.19	1.09	0.47
3,901.0	90.20	180.60	2,499.1	-1,668.0	-8.3	1,668.0	0.56	0.31	0.47

DDC Survey Report



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Project: Eddy County, New Mexico
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Well: West Draw 5-8 PH Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well West Draw 5-8 PH Federal Com #1H
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MD Reference: WELL @ 3515.0usft (Patterson UTI #101)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

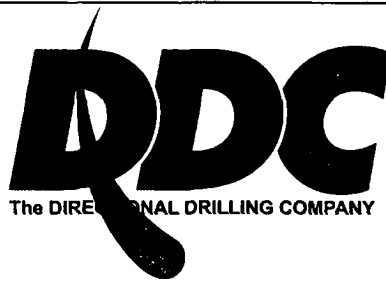
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,964.0	89.80	180.30	2,499.1	-1,731.0	-8.8	1,731.0	0.79	-0.63	-0.48
4,026.0	91.10	179.90	2,498.6	-1,793.0	-8.9	1,793.0	2.19	2.10	-0.65
4,090.0	90.40	179.30	2,497.8	-1,857.0	-8.4	1,857.0	1.44	-1.09	-0.94
4,154.0	89.10	178.80	2,498.1	-1,921.0	-7.4	1,921.0	2.18	-2.03	-0.78
4,215.0	90.60	178.80	2,498.2	-1,982.0	-6.1	1,982.0	2.46	2.46	0.00
4,277.0	90.90	179.30	2,497.4	-2,044.0	-5.1	2,044.0	0.94	0.48	0.81
4,338.0	90.50	179.90	2,496.7	-2,105.0	-4.6	2,105.0	1.18	-0.66	0.98
4,397.0	90.10	179.70	2,496.4	-2,164.0	-4.4	2,164.0	0.76	-0.68	-0.34
4,458.0	91.20	180.20	2,495.7	-2,225.0	-4.4	2,225.0	1.98	1.80	0.82
4,520.0	91.20	180.80	2,494.4	-2,287.0	-4.9	2,286.9	0.97	0.00	0.97
4,582.0	90.70	180.80	2,493.4	-2,348.9	-5.8	2,348.9	0.81	-0.81	0.00
4,643.0	90.30	180.30	2,492.8	-2,409.9	-6.4	2,409.9	1.05	-0.66	-0.82
4,702.0	90.00	180.40	2,492.7	-2,468.9	-6.7	2,468.9	0.54	-0.51	0.17
4,762.0	89.50	179.50	2,492.9	-2,528.9	-6.7	2,528.9	1.72	-0.83	-1.50
4,824.0	91.30	179.00	2,492.5	-2,590.9	-5.9	2,590.9	3.01	2.90	-0.81
4,886.0	91.20	179.70	2,491.1	-2,652.9	-5.2	2,652.9	1.14	-0.16	1.13
4,950.0	90.40	178.70	2,490.3	-2,716.9	-4.3	2,716.9	2.00	-1.25	-1.56
5,013.0	90.30	177.80	2,489.9	-2,779.9	-2.3	2,779.9	1.44	-0.16	-1.43
5,077.0	91.20	181.70	2,489.0	-2,843.8	-2.1	2,843.8	6.25	1.41	6.09
5,140.0	91.10	181.40	2,487.8	-2,906.8	-3.8	2,906.8	0.50	-0.16	-0.48
5,203.0	91.20	180.10	2,486.5	-2,969.8	-4.6	2,969.8	2.07	0.16	-2.06
5,266.0	90.80	182.00	2,485.4	-3,032.8	-5.8	3,032.8	3.08	-0.63	3.02
5,330.0	90.70	181.70	2,484.6	-3,096.7	-7.8	3,096.7	0.49	-0.16	-0.47
5,394.0	89.80	182.60	2,484.3	-3,160.7	-10.2	3,160.7	1.99	-1.41	1.41
5,457.0	89.40	182.30	2,484.7	-3,223.6	-12.9	3,223.6	0.79	-0.63	-0.48
5,520.0	90.00	180.20	2,485.1	-3,286.6	-14.3	3,286.6	3.47	0.95	-3.33
5,583.0	89.90	180.10	2,485.1	-3,349.6	-14.5	3,349.6	0.22	-0.16	-0.16
5,646.0	89.90	179.90	2,485.2	-3,412.6	-14.5	3,412.6	0.32	0.00	-0.32
5,710.0	89.90	179.70	2,485.3	-3,476.6	-14.2	3,476.6	0.31	0.00	-0.31
5,774.0	89.60	180.00	2,485.6	-3,540.6	-14.1	3,540.6	0.66	-0.47	0.47
5,837.0	89.30	179.70	2,486.2	-3,603.6	-13.9	3,603.6	0.67	-0.48	-0.48
5,901.0	89.20	179.40	2,487.1	-3,667.6	-13.4	3,667.6	0.49	-0.16	-0.47
5,964.0	88.70	179.60	2,488.2	-3,730.6	-12.8	3,730.5	0.85	-0.79	0.32
Projection to Bit									
6,030.0	88.70	179.60	2,489.7	-3,796.6	-12.4	3,796.5	0.00	0.00	0.00

Survey Annotations

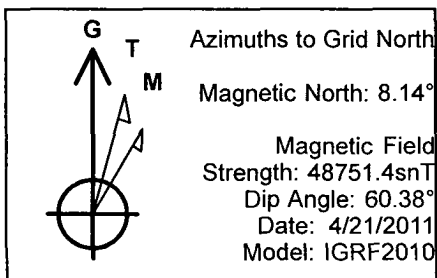
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
1,826.0	1,825.5	-20.7	26.1	Tie-in to Gyro
2,751.0	2,506.3	-518.5	-15.0	Crossed Hard Line @ 2751' MD
6,030.0	2,489.7	-3,796.6	-12.4	Projection to Bit

West Draw 5-8 PH Federal Com #1H
Eddy County, New Mexico
Q100748 & WT-11219

Company Name: Mewborne Oil Co
West Draw 5-8 PH Federal Com #1H
Eddy County, New Mexico
Rig: Patterson UTI #101
Created By: Shane Robbins
Date: 5/4/2011



Mewborne Oil Company



PROJECT DETAILS: Eddy County, New Mexico

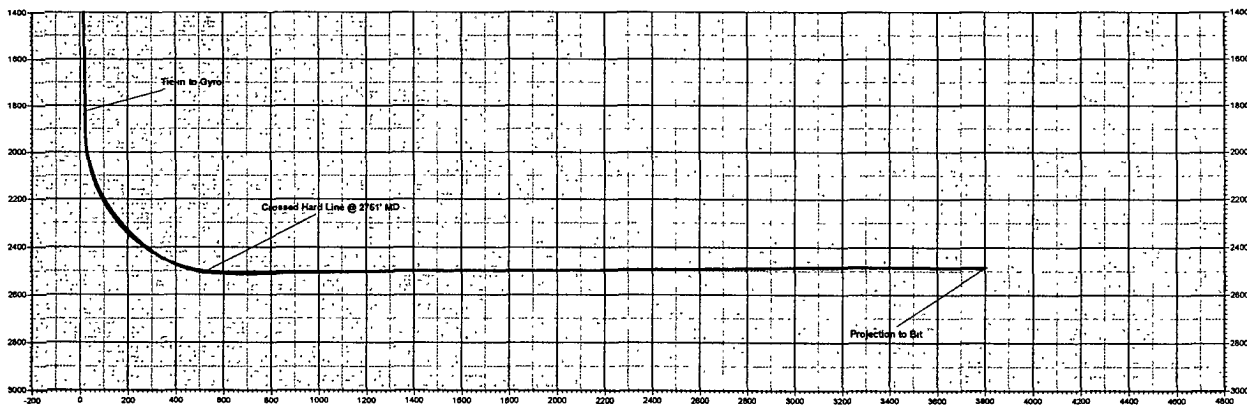
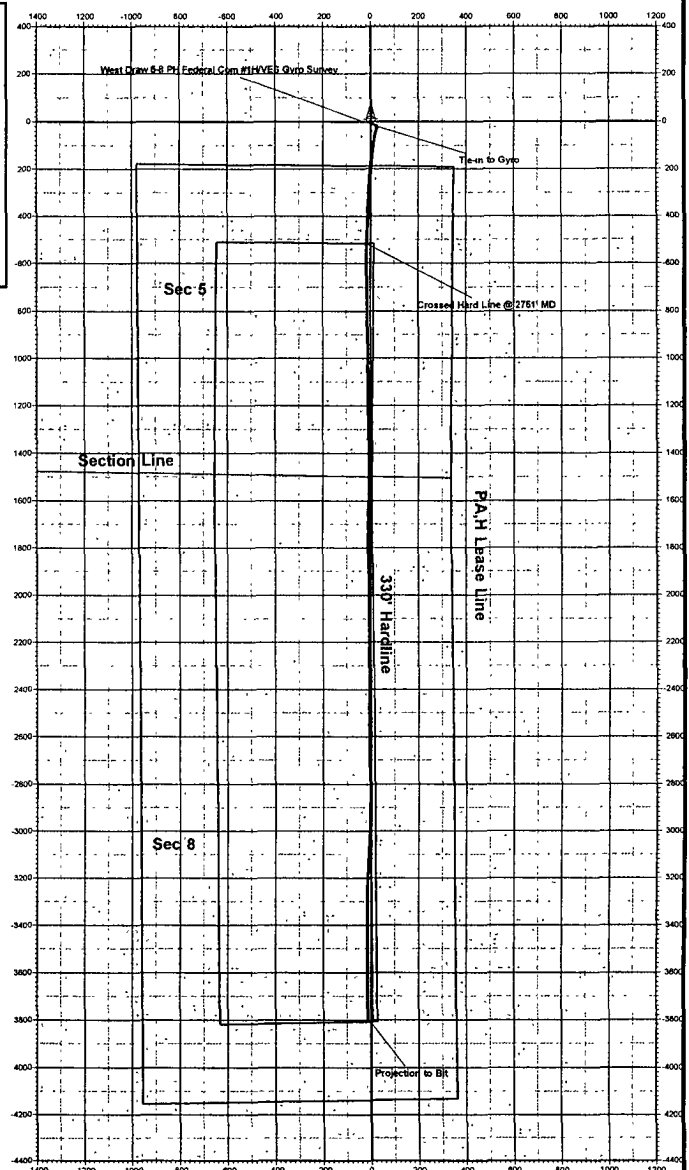
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: West Draw 5-8 PH Federal Com #1H

		Ground Level: 3496.0	
+N/-S	+E/-W	Northing	Easting
0.0	0.0	881788.41	448939.93
			Latitude 32° 35' 57.635 N
			Longitude 104° 29' 56.881 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1826.0	1.11	147.38	1825.6	-20.7	26.1	20.8	37.4	Tie-in to Gyro
2761.0	83.50	180.81	2606.3	-518.5	-16.0	518.4	638.3	Crossed Hard Line @ 2761' MD
6030.0	88.79	178.60	2489.7	-3796.6	-12.4	3796.5	3816.7	Projection to Bit



Vertical Section at 179.88° (200 usft/in)