

Mewbourne Oil Co

Eddy County, New Mexico

Sec 35 23W-28E

Layla 35 MD Fee Com #1H

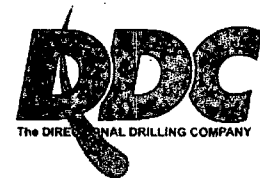
30-015-40210

Wellbore #1

Survey: MWD

DDC Survey Report

30 November, 2012



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Layla 35 MD Fee Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
Site:	Sec 35 23W-28E	MD Reference:	GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
Well:	Layla 35 MD Fee 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 35 23W-28E		
Site Position:	From:	Map	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
Northing:	461,407.18 usft	Latitude:	32° 16' 5.618 N
Easting:	584,793.84 usft	Longitude:	104° 3' 32.396 W
Grid Convergence:			0.15 °

Well:	Layla 35 MD Fee Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 456,634.34 usft
	+E/-W	0.0 usft	Easting: 582,967.23 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Ground Level:	3,021.0 usft
		Latitude:	32° 15' 18.431 N
		Longitude:	104° 3' 53.810 W

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	11/8/2012	7.64
			(°)
			Dip Angle
			60.10
			(°)
			Field Strength
			48,443
			(nT)

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
			(°)
			0.45

Survey Program	Date	11/30/2012		
From	To	Survey (Wellbore)	Tool Name	Description
100.0	5,480.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
5,597.0	10,636.0	MWD (Wellbore #1)	MWD default	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)
TIE IN @ 5480' MD / 5478' TVD									
5,480.0	1.06	227.79	5,477.6	-76.2	33.6	-75.9	0.00	0.00	0.00
5,597.0	0.70	245.00	5,594.5	-77.2	32.1	-77.0	0.38	-0.31	14.71
5,628.0	1.40	343.20	5,625.5	-76.9	31.9	-76.7	5.33	2.26	316.77
5,660.0	5.20	355.00	5,657.5	-75.1	31.6	-74.9	12.00	11.88	36.88
5,691.0	9.10	357.00	5,688.2	-71.3	31.4	-71.0	12.60	12.58	6.45
5,723.0	12.40	356.10	5,719.7	-65.3	31.0	-65.1	10.33	10.31	-2.81
5,755.0	15.40	354.50	5,750.7	-57.6	30.4	-57.4	9.45	9.38	-5.00

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 35 23W-28E
Well: Layla 35 MD Fee Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Layla 35 MD Fee Com #1H
TVD Reference: GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
MD Reference: GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
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)
5,787.0	18.10	353.60	5,781.4	-48.5	29.4	-48.2	8.48	8.44	-2.81
5,819.0	21.10	353.40	5,811.5	-37.8	28.2	-37.6	9.38	9.38	-0.63
5,850.0	24.20	354.70	5,840.1	-25.9	27.0	-25.7	10.13	10.00	4.19
5,882.0	27.10	358.00	5,869.0	-12.1	26.1	-11.9	10.10	9.06	10.31
CROSSED HARD LINE @ 5898' MD / 5883' TVD									
5,898.2	28.23	0.49	5,883.3	-4.6	26.0	-4.4	9.97	6.98	15.35
5,913.0	29.30	2.60	5,896.3	2.5	26.2	2.7	9.97	7.23	14.28
5,945.0	31.70	2.40	5,923.9	18.7	26.9	19.0	7.51	7.50	-0.63
5,976.0	33.30	2.10	5,950.0	35.4	27.6	35.6	5.19	5.16	-0.97
6,007.0	35.70	1.50	5,975.5	52.9	28.1	53.2	7.82	7.74	-1.94
6,039.0	39.70	1.50	6,000.9	72.5	28.6	72.7	12.50	12.50	0.00
6,071.0	43.60	1.70	6,024.8	93.7	29.2	94.0	12.19	12.19	0.63
6,103.0	46.30	0.50	6,047.4	116.3	29.6	116.6	8.84	8.44	-3.75
6,135.0	50.10	359.90	6,068.7	140.2	29.7	140.4	11.96	11.88	-1.88
6,167.0	53.90	359.20	6,088.4	165.4	29.5	165.6	12.00	11.88	-2.19
6,199.0	56.90	358.90	6,106.6	191.7	29.1	192.0	9.41	9.38	-0.94
6,230.0	59.40	359.20	6,123.0	218.1	28.6	218.3	8.11	8.06	0.97
6,262.0	62.80	0.10	6,138.4	246.1	28.5	246.3	10.91	10.63	2.81
6,292.0	66.20	359.90	6,151.3	273.2	28.5	273.4	11.35	11.33	-0.67
6,324.0	68.90	358.90	6,163.6	302.7	28.2	302.9	8.92	8.44	-3.13
6,356.0	71.90	358.50	6,174.3	332.9	27.5	333.1	9.45	9.38	-1.25
6,388.0	74.60	358.50	6,183.5	363.5	26.7	363.7	8.44	8.44	0.00
6,420.0	76.70	358.90	6,191.4	394.5	26.0	394.7	6.67	6.56	1.25
6,452.0	79.10	359.40	6,198.1	425.8	25.5	425.9	7.65	7.50	1.56
6,484.0	82.80	0.60	6,203.2	457.4	25.5	457.5	12.14	11.56	3.75
6,511.0	86.80	1.00	6,205.6	484.2	25.9	484.4	14.89	14.81	1.48
6,583.0	88.60	1.00	6,208.5	556.2	27.1	556.4	2.50	2.50	0.00
6,615.0	88.50	1.70	6,209.3	588.1	27.9	588.3	2.21	-0.31	2.19
6,679.0	89.90	2.60	6,210.2	652.1	30.3	652.3	2.60	2.19	1.41
6,711.0	90.00	2.60	6,210.2	684.1	31.8	684.3	0.31	0.31	0.00
6,743.0	89.20	1.20	6,210.5	716.0	32.8	716.3	5.04	-2.50	-4.38
6,774.0	88.90	1.50	6,211.0	747.0	33.5	747.3	1.37	-0.97	0.97
6,806.0	89.00	1.30	6,211.6	779.0	34.3	779.3	0.70	0.31	-0.63
6,838.0	88.70	1.70	6,212.2	811.0	35.2	811.2	1.56	-0.94	1.25
6,870.0	87.70	0.60	6,213.2	843.0	35.8	843.2	4.64	-3.13	-3.44
6,901.0	85.90	359.60	6,214.9	873.9	35.9	874.2	6.64	-5.81	-3.23
6,933.0	85.80	359.60	6,217.3	905.8	35.6	906.1	0.31	-0.31	0.00
6,965.0	87.70	0.10	6,219.1	937.8	35.6	938.0	6.14	5.94	1.56
6,997.0	87.30	359.60	6,220.5	969.8	35.5	970.0	2.00	-1.25	-1.56
7,061.0	89.20	0.30	6,222.4	1,033.7	35.4	1,034.0	3.16	2.97	1.09
7,124.0	88.50	359.90	6,223.7	1,096.7	35.5	1,096.9	1.28	-1.11	-0.63
7,187.0	90.90	0.80	6,224.0	1,159.7	35.9	1,159.9	4.07	3.81	1.43

DDC Survey Report



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Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Layla 35 MD Fee Com #1H
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MD Reference: GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
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)
7,251.0	90.20	0.50	6,223.4	1,223.7	36.6	1,223.9	1.19	-1.09	-0.47
7,315.0	88.70	0.50	6,224.0	1,287.7	37.2	1,287.9	2.34	-2.34	0.00
7,377.0	88.10	359.40	6,225.8	1,349.7	37.1	1,349.9	2.02	-0.97	-1.77
7,441.0	88.50	359.60	6,227.7	1,413.6	36.6	1,413.9	0.70	0.63	0.31
7,504.0	89.70	0.60	6,228.6	1,476.6	36.7	1,476.9	2.48	1.90	1.59
7,568.0	89.50	0.60	6,229.1	1,540.6	37.4	1,540.9	0.31	-0.31	0.00
7,631.0	88.90	0.50	6,230.0	1,603.6	38.0	1,603.9	0.97	-0.95	-0.16
7,695.0	88.70	359.80	6,231.3	1,667.6	38.1	1,667.8	1.14	-0.31	-1.09
7,759.0	90.00	359.90	6,232.0	1,731.6	38.0	1,731.8	2.04	2.03	0.16
7,823.0	90.70	0.80	6,231.6	1,795.6	38.4	1,795.8	1.78	1.09	1.41
7,886.0	91.50	0.50	6,230.4	1,858.6	39.1	1,858.8	1.36	1.27	-0.48
7,949.0	91.00	1.00	6,229.1	1,921.5	39.9	1,921.8	1.12	-0.79	0.79
8,012.0	91.20	1.50	6,227.9	1,984.5	41.3	1,984.8	0.85	0.32	0.79
8,075.0	90.70	2.60	6,226.8	2,047.5	43.5	2,047.7	1.92	-0.79	1.75
8,139.0	90.20	2.10	6,226.3	2,111.4	46.1	2,111.7	1.10	-0.78	-0.78
8,203.0	88.20	1.70	6,227.2	2,175.4	48.3	2,175.7	3.19	-3.13	-0.63
8,266.0	88.40	1.00	6,229.1	2,238.3	49.8	2,238.6	1.16	0.32	-1.11
8,329.0	88.80	1.90	6,230.6	2,301.3	51.3	2,301.6	1.56	0.63	1.43
8,392.0	89.30	2.20	6,231.7	2,364.2	53.6	2,364.6	0.93	0.79	0.48
8,456.0	87.70	1.90	6,233.3	2,428.2	55.9	2,428.5	2.54	-2.50	-0.47
8,520.0	89.30	2.90	6,235.0	2,492.1	58.6	2,492.5	2.95	2.50	1.56
8,583.0	89.60	3.60	6,235.6	2,555.0	62.1	2,555.4	1.21	0.48	1.11
8,647.0	88.40	1.20	6,236.7	2,618.9	64.8	2,619.3	4.19	-1.88	-3.75
8,711.0	88.30	0.30	6,238.6	2,682.9	65.7	2,683.3	1.41	-0.16	-1.41
8,774.0	90.40	2.10	6,239.3	2,745.8	67.0	2,746.3	4.39	3.33	2.86
8,838.0	90.70	2.10	6,238.7	2,809.8	69.3	2,810.3	0.47	0.47	0.00
8,901.0	91.90	2.90	6,237.2	2,872.7	72.1	2,873.2	2.29	1.90	1.27
8,965.0	90.20	1.30	6,236.1	2,936.7	74.4	2,937.2	3.65	-2.66	-2.50
9,029.0	90.00	2.20	6,236.0	3,000.6	76.4	3,001.1	1.44	-0.31	1.41
9,092.0	89.70	0.50	6,236.1	3,063.6	77.8	3,064.1	2.74	-0.48	-2.70
9,156.0	88.10	357.80	6,237.3	3,127.6	76.9	3,128.1	4.90	-2.50	-4.22
9,220.0	86.70	356.60	6,240.2	3,191.4	73.8	3,191.9	2.88	-2.19	-1.88
9,283.0	88.30	356.40	6,243.0	3,254.3	69.9	3,254.7	2.56	2.54	-0.32
9,315.0	87.30	356.60	6,244.2	3,286.2	68.0	3,286.6	3.19	-3.13	0.63
9,347.0	87.00	356.30	6,245.8	3,318.1	66.0	3,318.5	1.33	-0.94	-0.94
9,379.0	89.70	356.80	6,246.7	3,350.0	64.1	3,350.4	8.58	8.44	1.56
9,410.0	92.30	358.90	6,246.2	3,381.0	62.9	3,381.4	10.78	8.39	6.77
9,442.0	92.10	359.10	6,245.0	3,412.9	62.4	3,413.3	0.88	-0.63	0.63
9,474.0	91.80	358.70	6,243.9	3,444.9	61.7	3,445.3	1.56	-0.94	-1.25
9,506.0	90.90	358.70	6,243.1	3,476.9	61.0	3,477.3	2.81	-2.81	0.00
9,538.0	90.70	358.70	6,242.7	3,508.9	60.3	3,509.3	0.63	-0.63	0.00
9,601.0	90.70	358.40	6,241.9	3,571.9	58.7	3,572.2	0.48	0.00	-0.48

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Layla 35 MD Fee Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
Site:	Sec 35 23W-28E	MD Reference:	GL3021'+20'KB @ 3041.0usft (Patterson UTI Rig)
Well:	Layla 35 MD Fee Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,664.0	90.50	358.00	6,241.3	3,634.8	56.7	3,635.2	0.71	-0.32	-0.63
9,728.0	88.60	356.40	6,241.8	3,698.8	53.6	3,699.1	3.88	-2.97	-2.50
9,792.0	89.00	356.60	6,243.1	3,762.6	49.7	3,762.9	0.70	0.63	0.31
9,856.0	89.00	356.60	6,244.2	3,826.5	45.9	3,826.7	0.00	0.00	0.00
9,918.0	89.20	355.20	6,245.2	3,888.3	41.5	3,888.5	2.28	0.32	-2.26
9,982.0	88.60	355.20	6,246.4	3,952.1	36.1	3,952.3	0.94	-0.94	0.00
10,045.0	90.00	355.90	6,247.2	4,014.9	31.2	4,015.0	2.48	2.22	1.11
10,109.0	91.50	357.10	6,246.3	4,078.8	27.3	4,078.9	3.00	2.34	1.88
10,172.0	91.90	358.70	6,244.5	4,141.7	25.0	4,141.8	2.62	0.63	2.54
10,236.0	93.00	359.60	6,241.7	4,205.6	24.1	4,205.7	2.22	1.72	1.41
10,300.0	91.90	2.40	6,239.0	4,269.6	25.2	4,269.6	4.70	-1.72	-4.38
10,363.0	91.70	3.10	6,237.0	4,332.4	28.2	4,332.5	1.16	-0.32	1.11
10,427.0	87.40	3.50	6,237.5	4,396.3	31.9	4,396.4	6.75	-6.72	0.63
10,489.0	86.90	3.80	6,240.6	4,458.1	35.8	4,458.3	0.94	-0.81	0.48
10,552.0	87.10	3.80	6,243.9	4,520.9	40.0	4,521.1	0.32	0.32	0.00
10,584.0	88.20	4.20	6,245.2	4,552.8	42.2	4,553.0	3.66	3.44	1.25
TD @ 10636' MD / 6247' TVD									
10,636.0	88.20	4.20	6,246.9	4,604.6	46.0	4,604.8	0.00	0.00	0.00

Survey Annotations

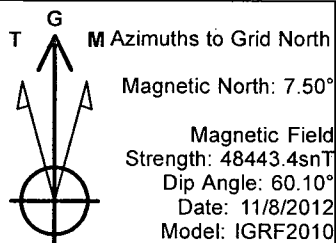
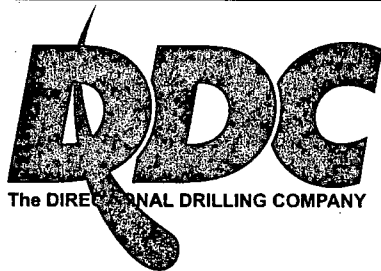
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	+N/-S (usft)	+E/-W (usft)	Comment
5,480.0	5,477.6	-76.2	33.6		TIE IN @ 5480' MD / 5478' TVD
5,898.2	5,883.3	-4.6	26.0		CROSSED HARD LINE @ 5898' MD / 5883' TVD
10,636.0	6,246.9	4,604.6	46.0		TD @ 10636' MD / 6247' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mewbourne Oil Co
Layla 35 MD Fee Com #1H
Eddy County, New Mexico
Rig: Patterson UTI Rig
Created By: Dina Chance
Date: 11/30/2012

Layla 35 MD Fee Com #1H
Eddy County, New Mexico
Q120205 & WT-12848
Design #2

Mewbourne Oil Company



PROJECT DETAILS: Eddy County, New Mexico

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

WELL DETAILS: Layla 35 MD Fee Com #1H

Ground Level: 3021.0
+N/-S +E/-W Northing Easting Latitude Longitude
0.0 0.0 466534.34 622987.23 32° 15' 18.431 N 104° 3' 53.610 W

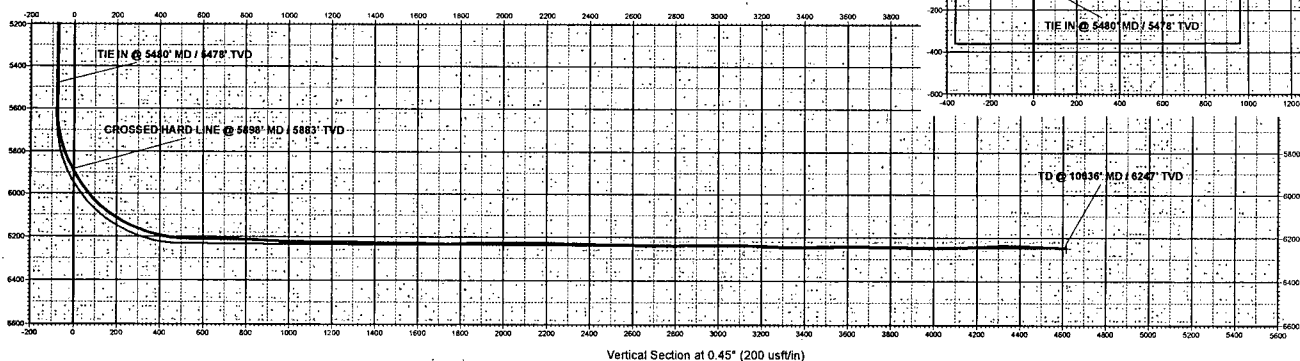
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Layla 35 MD Fee Com #1H	6248.0	4616.9	55.9	461251.26	683003.10	32° 16' 4.120 N 104° 3' 53.258 W	

- plan hits target center

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
5480.0	1.06	227.79	5477.6	-76.2	35.6	-76.9	141.9	TIE IN @ 5480' MD / 5478' TVD
5898.2	28.23	0.49	5893.3	-4.6	26.0	-4.4	217.0	CROSSED HARD LINE @ 5898' MD / 5893' TVD
10836.0	88.20	4.20	6246.9	4604.6	46.0	4604.8	4829.3	TD @ 10836' MD / 6247' TVD



Vertical Section at 0.45" (200 usf/in)

