

Mewbourne Oil Co

Eddy, New Mexico

Section 21-20S-25E

Pine Box 21 CN Federal Com #1H

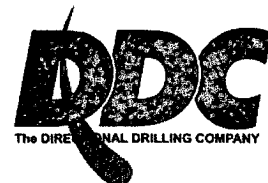
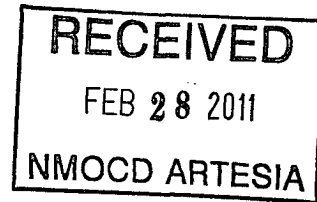
30-019-38301

Wellbore #1

Survey: Pine Box 21 CN Fed Com #1H

DDC Survey Report

21 December, 2010



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Pine Box 21 CN Federal Com #1H
Project:	Eddy, New Mexico	TVD Reference:	WELL @ 3477.0usft (Patterson UTI #101)
Site:	Section 21-20S-25E	MD Reference:	WELL @ 3477.0usft (Patterson UTI #101)
Well:	Pine Box 21 CN 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, 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		Section 21-20S-25E			
Site Position:		Northing:	569,825.22 usft	Latitude:	32° 33' 58.393 N
From:	Map	Easting:	410,431.75 usft	Longitude:	104° 37' 26.646 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.16 °

Well	Pine Box 21 CN Federal Com #1H					
Well Position	+N-S	0.0 usft	Northing:	569,825.22 usft	Latitude:	32° 33' 58.393 N
	+E-W	0.0 usft	Easting:	410,431.75 usft	Longitude:	104° 37' 26.646 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,458.0 usft

Wellbore	Wellbore #1				
-----------------	-------------	--	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/3/2010	8.15	60.33	48,755

Design	Wellbore #1				
---------------	-------------	--	--	--	--

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	180.00

Survey Program		Date 12/21/2010		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	1,945.2	Scientific Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
2,057.0	7,147.0	Pine Box 21 CN Fed Com #1H (Wellbore #1)	MWD default	MWD - Standard

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)
Tie-in to Gyro									
1,945.2	0.63	189.72	1,945.0	-11.6	-3.4	11.6	0.00	0.00	0.00
2,057.0	0.60	262.40	2,056.7	-12.3	-4.1	12.3	0.65	-0.03	65.01
2,088.0	1.60	196.10	2,087.7	-12.8	-4.3	12.8	4.73	3.23	-213.87
2,120.0	4.40	188.60	2,119.7	-14.4	-4.6	14.4	8.82	8.75	-23.44
2,152.0	8.70	167.30	2,151.5	-18.0	-4.3	18.0	15.21	13.44	-66.56
2,184.0	12.70	178.90	2,182.9	-23.9	-3.7	23.9	14.14	12.50	36.25
2,215.0	16.00	181.30	2,213.0	-31.5	-3.7	31.5	10.81	10.65	7.74
2,247.0	19.60	180.80	2,243.4	-41.3	-3.9	41.3	11.26	11.25	-1.56
2,279.0	23.30	178.60	2,273.2	-53.0	-3.8	53.0	11.83	11.56	-6.88

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy, New Mexico
Site: Section 21-20S-25E
Well: Pine Box 21 CN Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pine Box 21 CN Federal Com #1H
TVD Reference: WELL @ 3477.0usft (Patterson UTI #101)
MD Reference: WELL @ 3477.0usft (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)
2,311.0	25.70	183.30	2,302.3	-66.3	-4.1	66.3	9.66	7.50	14.69
2,343.0	29.20	181.40	2,330.7	-81.0	-4.7	81.0	11.27	10.94	-5.94
2,375.0	30.90	178.00	2,358.4	-97.0	-4.6	97.0	7.52	5.31	-10.63
2,406.0	34.00	178.30	2,384.6	-113.7	-4.0	113.7	10.01	10.00	0.97
Crossed Hard Line @ 2438' MD									
2,435.0	34.82	178.75	2,408.5	-130.0	-3.6	130.0	2.95	2.81	1.57
2,438.0	34.90	178.80	2,411.0	-131.7	-3.6	131.7	2.95	2.82	1.53
2,470.0	37.90	183.20	2,436.7	-150.7	-3.9	150.7	12.42	9.38	13.75
2,502.0	40.60	178.80	2,461.5	-171.0	-4.3	171.0	12.12	8.44	-13.75
2,534.0	42.10	185.00	2,485.5	-192.1	-5.0	192.1	13.63	4.69	19.38
2,566.0	45.00	180.60	2,508.7	-214.1	-6.0	214.1	13.11	9.06	-13.75
2,597.0	47.80	182.40	2,530.1	-236.5	-6.6	236.5	9.96	9.03	5.81
2,629.0	50.70	182.10	2,551.0	-260.7	-7.6	260.7	9.09	9.06	-0.94
2,661.0	53.70	181.40	2,570.6	-286.0	-8.3	286.0	9.53	9.38	-2.19
2,693.0	57.10	181.90	2,588.8	-312.3	-9.1	312.3	10.70	10.63	1.56
2,725.0	60.60	181.20	2,605.3	-339.7	-9.8	339.7	11.10	10.94	-2.19
2,756.0	63.90	181.50	2,619.7	-367.1	-10.5	367.1	10.68	10.65	0.97
2,788.0	67.50	179.80	2,632.9	-396.3	-10.8	396.3	12.25	11.25	-5.31
2,820.0	71.00	177.00	2,644.2	-426.2	-10.0	426.2	13.66	10.94	-8.75
2,852.0	74.40	175.50	2,653.8	-456.7	-8.0	456.7	11.53	10.63	-4.69
2,883.0	77.40	176.80	2,661.3	-486.7	-6.0	486.7	10.50	9.68	4.19
2,915.0	80.50	175.20	2,667.4	-518.0	-3.8	518.0	10.86	9.69	-5.00
2,947.0	83.30	174.40	2,672.0	-549.5	-0.9	549.5	9.09	8.75	-2.50
2,970.0	83.80	175.70	2,674.5	-572.3	1.1	572.3	6.02	2.17	5.65
3,051.0	86.90	179.00	2,681.1	-652.9	4.8	652.9	5.58	3.83	4.07
3,083.0	88.50	176.00	2,682.4	-684.9	6.2	684.9	10.62	5.00	-9.38
3,114.0	89.50	179.90	2,682.9	-715.8	7.3	715.8	12.99	3.23	12.58
3,145.0	90.90	178.90	2,682.8	-746.8	7.6	746.8	5.55	4.52	-3.23
3,177.0	91.80	179.80	2,682.1	-778.8	8.0	778.8	3.98	2.81	2.81
3,208.0	92.10	180.80	2,681.0	-809.8	7.8	809.8	3.37	0.97	3.23
3,240.0	92.20	178.20	2,679.8	-841.8	8.1	841.8	8.13	0.31	-8.13
3,303.0	92.10	179.60	2,677.5	-904.7	9.3	904.7	2.23	-0.16	2.22
3,367.0	91.50	183.70	2,675.4	-968.6	7.5	968.6	6.47	-0.94	6.41
3,429.0	91.10	184.20	2,674.0	-1,030.5	3.2	1,030.5	1.03	-0.65	0.81
3,492.0	91.30	180.10	2,672.7	-1,093.4	0.9	1,093.4	6.51	0.32	-6.51
3,555.0	90.50	183.60	2,671.7	-1,156.3	-1.2	1,156.3	5.70	-1.27	5.56
3,618.0	89.70	183.60	2,671.6	-1,219.2	-5.1	1,219.2	1.27	-1.27	0.00
3,681.0	89.30	180.00	2,672.2	-1,282.2	-7.1	1,282.2	5.75	-0.63	-5.71
3,744.0	89.30	179.90	2,672.9	-1,345.2	-7.1	1,345.2	0.16	0.00	-0.16
3,806.0	89.80	177.50	2,673.4	-1,407.2	-5.7	1,407.2	3.95	0.81	-3.87
3,870.0	90.00	179.40	2,673.5	-1,471.1	-3.9	1,471.1	2.99	0.31	2.97
3,933.0	90.70	182.50	2,673.1	-1,534.1	-5.0	1,534.1	5.04	1.11	4.92
3,996.0	89.80	181.30	2,672.9	-1,597.1	-7.1	1,597.1	2.38	-1.43	-1.90

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy, New Mexico
Site: Section 21-20S-25E
Well: Pine Box 21 CN Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Pine Box 21 CN Federal Com #1H
TVD Reference: WELL @ 3477.0usft (Patterson UTI #101)
MD Reference: WELL @ 3477.0usft (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)
4,059.0	89.50	176.50	2,673.3	-1,660.0	-5.8	1,660.0	7.63	-0.48	-7.62
4,121.0	89.50	177.10	2,673.8	-1,721.9	-2.4	1,721.9	0.97	0.00	0.97
4,185.0	89.80	177.50	2,674.2	-1,785.9	0.6	1,785.9	0.78	0.47	0.63
4,248.0	89.60	179.70	2,674.5	-1,848.8	2.2	1,848.8	3.51	-0.32	3.49
4,311.0	90.00	179.50	2,674.7	-1,911.8	2.6	1,911.8	0.71	0.63	-0.32
4,374.0	89.80	178.10	2,674.9	-1,974.8	3.9	1,974.8	2.24	-0.32	-2.22
4,438.0	89.70	178.80	2,675.1	-2,038.8	5.7	2,038.8	1.10	-0.16	1.09
4,501.0	90.40	182.30	2,675.1	-2,101.8	5.1	2,101.8	5.67	1.11	5.56
4,564.0	90.70	184.20	2,674.5	-2,164.7	1.5	2,164.7	3.05	0.48	3.02
4,626.0	90.70	183.00	2,673.7	-2,226.6	-2.4	2,226.6	1.94	0.00	-1.94
4,689.0	90.20	182.80	2,673.2	-2,289.5	-5.6	2,289.5	0.85	-0.79	-0.32
4,753.0	89.80	178.10	2,673.2	-2,353.5	-6.1	2,353.5	7.37	-0.63	-7.34
4,816.0	89.40	177.90	2,673.7	-2,416.4	-3.9	2,416.4	0.71	-0.63	-0.32
4,880.0	90.00	179.80	2,674.0	-2,480.4	-2.6	2,480.4	3.11	0.94	2.97
4,943.0	90.00	180.30	2,674.0	-2,543.4	-2.7	2,543.4	0.79	0.00	0.79
5,005.0	90.40	181.90	2,673.8	-2,605.4	-3.9	2,605.4	2.66	0.65	2.58
5,065.0	89.90	179.30	2,673.6	-2,665.4	-4.5	2,665.4	4.41	-0.83	-4.33
5,127.0	90.30	181.60	2,673.5	-2,727.4	-5.0	2,727.4	3.77	0.65	3.71
5,189.0	90.00	181.50	2,673.3	-2,789.3	-6.7	2,789.3	0.51	-0.48	-0.16
5,250.0	89.30	177.70	2,673.7	-2,850.3	-6.2	2,850.3	6.33	-1.15	-6.23
5,312.0	89.20	178.70	2,674.5	-2,912.3	-4.3	2,912.3	1.62	-0.16	1.61
5,373.0	89.60	180.60	2,675.2	-2,973.3	-3.9	2,973.3	3.18	0.66	3.11
5,434.0	89.70	176.40	2,675.5	-3,034.2	-2.3	3,034.2	6.89	0.16	-6.89
5,496.0	90.30	176.30	2,675.5	-3,096.1	1.6	3,096.1	0.98	0.97	-0.16
5,556.0	90.80	177.90	2,675.0	-3,156.0	4.7	3,156.0	2.79	0.83	2.67
5,618.0	90.90	179.00	2,674.0	-3,218.0	6.3	3,218.0	1.78	0.16	1.77
5,681.0	91.30	180.30	2,672.8	-3,281.0	6.7	3,281.0	2.16	0.63	2.06
5,744.0	91.30	181.70	2,671.4	-3,344.0	5.6	3,344.0	2.22	0.00	2.22
5,808.0	90.30	178.30	2,670.5	-3,408.0	5.6	3,408.0	5.54	-1.56	-5.31
5,871.0	90.40	179.40	2,670.1	-3,470.9	6.9	3,470.9	1.75	0.16	1.75
5,934.0	89.90	182.40	2,670.0	-3,533.9	5.9	3,533.9	4.83	-0.79	4.76
5,997.0	90.00	181.10	2,670.0	-3,596.9	4.0	3,596.9	2.07	0.16	-2.06
6,060.0	90.00	180.10	2,670.0	-3,659.9	3.3	3,659.9	1.59	0.00	-1.59
6,123.0	90.00	181.30	2,670.0	-3,722.9	2.6	3,722.9	1.90	0.00	1.90
6,186.0	90.40	182.40	2,669.8	-3,785.8	0.5	3,785.8	1.86	0.63	1.75
6,248.0	90.50	182.30	2,669.3	-3,847.8	-2.0	3,847.8	0.23	0.16	-0.16
6,312.0	90.50	183.30	2,668.8	-3,911.7	-5.1	3,911.7	1.56	0.00	1.56
6,375.0	90.10	179.10	2,668.4	-3,974.7	-6.5	3,974.7	6.70	-0.63	-6.67
6,439.0	90.10	182.60	2,668.3	-4,038.7	-7.4	4,038.7	5.47	0.00	5.47
6,502.0	89.60	178.30	2,668.5	-4,101.6	-7.9	4,101.6	6.87	-0.79	-6.83
6,565.0	89.70	182.40	2,668.9	-4,164.6	-8.3	4,164.6	6.51	0.16	6.51
6,628.0	89.70	182.50	2,669.2	-4,227.6	-11.0	4,227.6	0.16	0.00	0.16
6,691.0	89.30	177.50	2,669.7	-4,290.6	-11.0	4,290.6	7.96	-0.63	-7.94
6,754.0	89.40	180.30	2,670.5	-4,353.5	-9.8	4,353.5	4.45	0.16	4.44

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Pine Box 21 CN Federal Com #1H
Project:	Eddy, New Mexico	TVD Reference:	WELL @ 3477.0usft (Patterson UTI #101)
Site:	Section 21-20S-25E	MD Reference:	WELL @ 3477.0usft (Patterson UTI #101)
Well:	Pine Box 21 CN Federal 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)
6,817.0	90.00	179.70	2,670.8	-4,416.5	-9.8	4,416.5	1.35	0.95	-0.95
6,881.0	89.30	176.50	2,671.2	-4,480.5	-7.7	4,480.5	5.12	-1.09	-5.00
6,944.0	89.30	176.70	2,671.9	-4,543.4	-3.9	4,543.4	0.32	0.00	0.32
7,006.0	90.90	177.80	2,671.8	-4,605.3	-0.9	4,605.3	3.13	2.58	1.77
7,070.0	90.80	180.90	2,670.9	-4,669.3	-0.2	4,669.3	4.85	-0.16	4.84
7,116.0	90.90	178.00	2,670.2	-4,715.3	0.2	4,715.3	6.31	0.22	-6.30
Projection to Bit									
7,147.0	90.90	178.00	2,669.7	-4,746.2	1.3	4,746.2	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,945.2	1,945.0	-11.6	-3.4	Tie-in to Gyro
2,435.0	2,408.5	-130.0	-3.6	Crossed Hard Line @ 2438' MD
7,147.0	2,669.7	-4,746.2	1.3	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

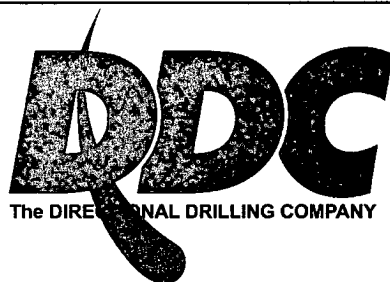
Pine Box 21 CN Federal Com #1H
Eddy, New Mexico
Q100750 & WT-10588

Company Name: Mewbourne Oil Co
Pine Box 21 CN Federal Com #1H
Eddy, New Mexico
Rig: Patterson UTI #101
Created By: Shane Robbins
Date: 12/21/2010

Mewbourne Oil Co.

WELL DETAILS: Pine Box 21 CN Federal Com #1H

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude
0.0	0.0	569825.22	410431.75	3458.0	32° 33' 58.393 N	104° 37' 26.646 W



Azimuths to Grid North

Correction: 8.31°

Magnetic Field
Strength: 48754.6snT

Dip Angle: 60.33°

Date: 12/3/2010

Model: IGRF2010

PROJECT DETAILS: Eddy, 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

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sect	Departure	Annotation
1945.2	0.63	189.72	1945.0	-11.6	-3.4	11.6	27.3		Tie-in to Gyro
2435.0	34.82	178.75	2408.5	-130.0	-3.6	130.0	146.6		Crossed Hard Line @ 2438' MD
7147.0	90.90	178.00	2669.7	-4746.2	1.3	4746.2	4765.9		Projection to Bit

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Pine Box 21 CN Federal Com #1H	2672.0	-4756.9	-0.1	565068.37	410431.69	32° 33' 11.321 N	104° 37' 26.495 W

- plan hits target center

