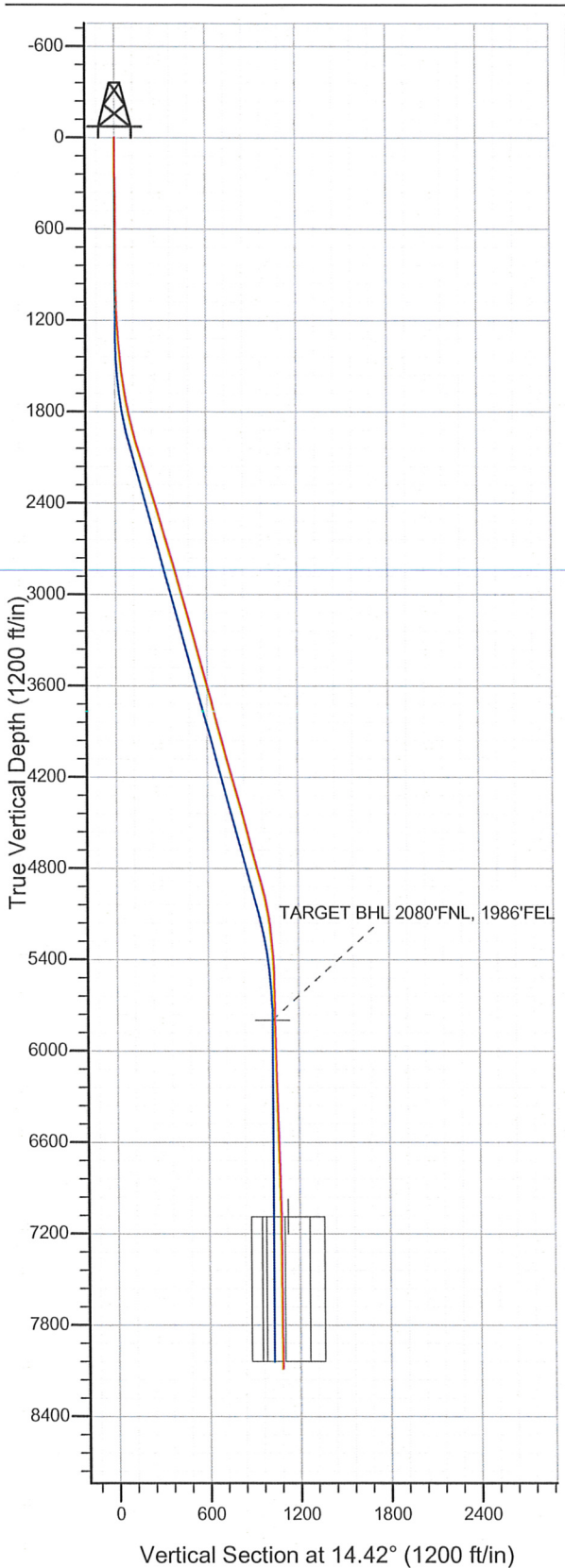
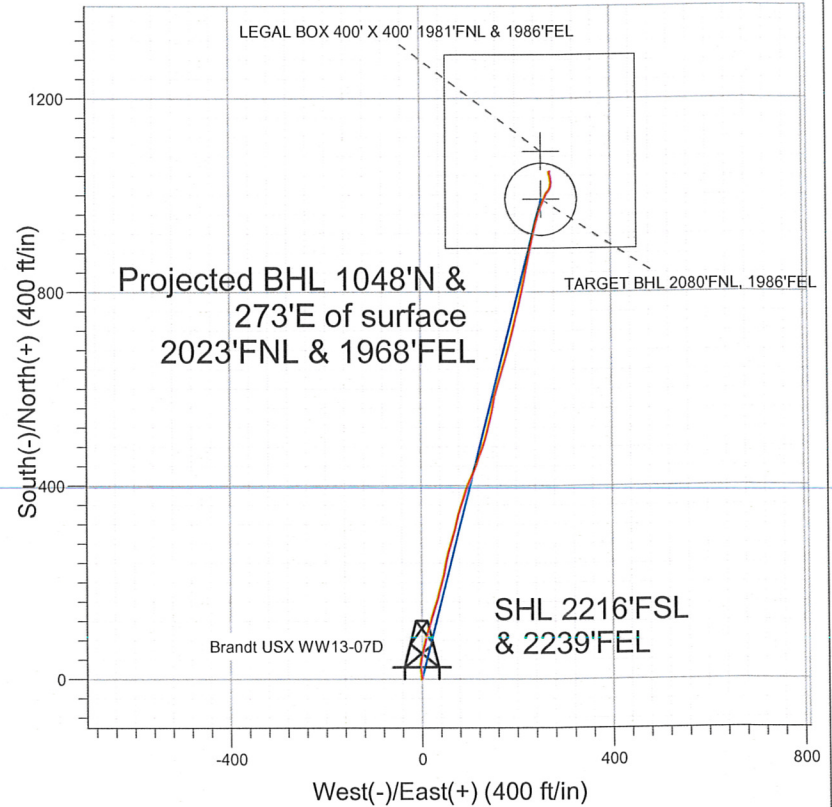


Surface Location: Brandt USX WW13-07D Pad Sec.13-T1N-R66W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 5048.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1262058.40 3217231.01 40.050130 -104.724020
Original Well Elev WELL @ 5061.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Brandt USX WW13-07D, Wellbore #1, Noble Brandt USX WW13-07D Plan #3 (7-12-11) V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
8220'MD & 8087'TVD @ 1083'VS
0.5 deg Inc 72.4 deg AZ

Project: SEC.13-T1N-R66W
Site: Brandt USX WW13-07D Pad Sec.13-T1N-R66W
Well: Brandt USX WW13-07D
Plan: Wellbore #1



NOBLE ENERGY INC WELD COUNTY CO

SEC.13-T1N-R66W

Brandt USX WW13-07D Pad Sec.13-T1N-R66W

Brandt USX WW13-07D

Wellbore #1

Survey: Survey #1

Standard Survey Report

16 December, 2011



Company: NOBLE ENERGY INC WELD COUNTY CO
Project: SEC.13-T1N-R66W
Site: Brandt USX WW13-07D Pad Sec.13-T1N-R66W
Well: Brandt USX WW13-07D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Brandt USX WW13-07D
TVD Reference: WELL @ 5061.0ft (Original Well Elev)
MD Reference: WELL @ 5061.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Project SEC.13-T1N-R66W, Weld County, Colorado

Map System: US State Plane 1983	System Datum: Mean Sea Level
Geo Datum: North American Datum 1983	Using Well Reference Point
Map Zone: Colorado Northern Zone	Using geodetic scale factor

Site Brandt USX WW13-07D Pad Sec.13-T1N-R66W

Site Position:	Northing: 1,262,058.41 ft	Latitude: 40.050130
From: Lat/Long	Easting: 3,217,231.01 ft	Longitude: -104.724020
Position Uncertainty: 0.0 ft	Slot Radius: "	Grid Convergence: 0.50 °

Well Brandt USX WW13-07D

Well Position	+N/-S 0.0 ft	Northing: 1,262,058.40 ft	Latitude: 40.050130
	+E/-W 0.0 ft	Easting: 3,217,231.01 ft	Longitude: -104.724020
Position Uncertainty 0.0 ft	Wellhead Elevation: ft	Ground Level: 5,048.0 ft	

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/15/2011	8.80	66.77	52,942

Design Wellbore #1

Audit Notes:

Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	14.42

Survey Program Date 12/16/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
167.0	8,220.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
167.0	0.40	64.00	167.0	0.3	0.5	0.4	0.24	0.24	0.00
259.0	0.40	66.50	259.0	0.5	1.1	0.8	0.02	0.00	2.72
351.0	0.90	34.30	351.0	1.2	1.8	1.7	0.65	0.54	-35.00
444.0	0.60	358.60	444.0	2.3	2.2	2.8	0.58	-0.32	-38.39
597.0	0.20	245.40	597.0	3.0	1.9	3.4	0.46	-0.26	-73.99
751.0	0.30	259.60	751.0	2.8	1.3	3.1	0.08	0.06	9.22
904.0	0.40	299.00	904.0	3.0	0.4	3.0	0.17	0.07	25.75
986.0	1.30	351.00	986.0	4.1	0.0	4.0	1.34	1.10	63.41
1,068.0	2.70	356.10	1,067.9	6.9	-0.2	6.7	1.72	1.71	6.22
1,150.0	3.80	355.60	1,149.8	11.6	-0.6	11.1	1.34	1.34	-0.61
1,217.0	4.10	354.40	1,216.6	16.2	-1.0	15.4	0.46	0.45	-1.79
1,314.0	3.70	356.70	1,313.4	22.7	-1.5	21.7	0.44	-0.41	2.37

Company: NOBLE ENERGY INC WELD COUNTY CO
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Well: Brandt USX WW13-07D
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Brandt USX WW13-07D
TVD Reference: WELL @ 5061.0ft (Original Well Elev)
MD Reference: WELL @ 5061.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,396.0	5.50	0.40	1,395.1	29.3	-1.6	28.0	2.22	2.20	4.51
1,478.0	6.20	9.30	1,476.7	37.6	-0.9	36.2	1.39	0.85	10.85
1,560.0	7.30	12.00	1,558.1	47.1	0.9	45.8	1.40	1.34	3.29
1,641.0	8.90	13.70	1,638.3	58.2	3.5	57.2	2.00	1.98	2.10
1,723.0	10.80	15.30	1,719.1	71.8	7.0	71.3	2.34	2.32	1.95
1,805.0	11.50	13.00	1,799.6	87.2	10.9	87.1	1.01	0.85	-2.80
1,887.0	13.40	18.30	1,879.6	104.1	15.7	104.8	2.70	2.32	6.46
1,968.0	15.20	16.00	1,958.1	123.3	21.6	124.7	2.33	2.22	-2.84
2,050.0	16.70	16.90	2,037.0	144.9	28.0	147.3	1.85	1.83	1.10
2,132.0	16.90	17.40	2,115.5	167.5	35.0	170.9	0.30	0.24	0.61
2,213.0	17.60	14.40	2,192.8	190.6	41.5	194.9	1.40	0.86	-3.70
2,295.0	18.50	12.00	2,270.8	215.3	47.3	220.3	1.42	1.10	-2.93
2,377.0	17.30	11.60	2,348.8	240.0	52.5	245.5	1.47	-1.46	-0.49
2,459.0	16.30	15.50	2,427.3	263.0	58.0	269.2	1.84	-1.22	4.76
2,540.0	16.80	17.40	2,505.0	285.2	64.5	292.3	0.91	0.62	2.35
2,622.0	15.80	16.00	2,583.7	307.2	71.1	315.3	1.31	-1.22	-1.71
2,704.0	16.20	13.00	2,662.5	329.1	76.8	337.8	1.12	0.49	-3.66
2,785.0	16.40	17.60	2,740.2	351.0	82.8	360.6	1.61	0.25	5.68
2,867.0	16.60	16.70	2,818.9	373.3	89.7	383.8	0.40	0.24	-1.10
2,949.0	15.60	19.00	2,897.6	394.9	96.6	406.5	1.45	-1.22	2.80
3,031.0	15.70	24.60	2,976.6	415.4	104.8	428.4	1.85	0.12	6.83
3,112.0	15.70	23.40	3,054.6	435.4	113.7	450.0	0.40	0.00	-1.48
3,194.0	15.10	18.60	3,133.6	455.7	121.6	471.7	1.72	-0.73	-5.85
3,276.0	15.90	20.20	3,212.7	476.4	128.8	493.5	1.11	0.98	1.95
3,357.0	15.40	16.70	3,290.7	497.1	135.8	515.3	1.32	-0.62	-4.32
3,439.0	15.20	13.70	3,369.8	518.0	141.4	536.9	1.00	-0.24	-3.66
3,521.0	15.80	13.50	3,448.8	539.3	146.6	558.8	0.73	0.73	-0.24
3,603.0	15.70	9.70	3,527.7	561.1	151.1	581.0	1.26	-0.12	-4.63
3,684.0	15.50	13.20	3,605.7	582.4	155.4	602.8	1.19	-0.25	4.32
3,766.0	15.50	17.80	3,684.7	603.5	161.2	624.7	1.50	0.00	5.61
3,848.0	14.20	16.20	3,764.0	623.6	167.4	645.7	1.66	-1.59	-1.95
3,930.0	14.90	17.40	3,843.4	643.3	173.4	666.2	0.93	0.85	1.46
4,011.0	15.00	14.80	3,921.6	663.4	179.1	687.1	0.84	0.12	-3.21
4,093.0	14.60	15.10	4,000.9	683.6	184.5	708.1	0.50	-0.49	0.37
4,175.0	15.60	15.80	4,080.1	704.2	190.2	729.4	1.24	1.22	0.85
4,256.0	15.60	12.50	4,158.1	725.3	195.6	751.2	1.10	0.00	-4.07
4,338.0	16.40	13.50	4,236.9	747.4	200.7	773.8	1.03	0.98	1.22
4,420.0	16.20	13.50	4,315.6	769.7	206.0	796.8	0.24	-0.24	0.00
4,502.0	15.20	14.20	4,394.6	791.3	211.3	819.0	1.24	-1.22	0.85
4,583.0	14.80	11.40	4,472.8	811.7	216.0	839.9	1.02	-0.49	-3.46
4,665.0	14.90	11.40	4,552.1	832.3	220.1	860.9	0.12	0.12	0.00
4,747.0	15.90	11.30	4,631.1	853.7	224.4	882.7	1.22	1.22	-0.12
4,828.0	14.70	10.90	4,709.2	874.6	228.5	904.0	1.49	-1.48	-0.49
4,910.0	15.80	13.20	4,788.4	895.7	233.1	925.6	1.53	1.34	2.80
4,992.0	15.10	12.70	4,867.4	917.0	238.0	947.4	0.87	-0.85	-0.61
5,074.0	14.10	13.40	4,946.7	937.2	242.6	968.1	1.24	-1.22	0.85
5,155.0	12.10	18.50	5,025.6	954.8	247.6	986.4	2.85	-2.47	6.30
5,237.0	9.70	17.90	5,106.1	969.5	252.4	1,001.9	2.93	-2.93	-0.73
5,319.0	6.80	23.40	5,187.3	980.6	256.5	1,013.5	3.66	-3.54	6.71
5,400.0	5.80	23.70	5,267.8	988.7	260.0	1,022.3	1.24	-1.23	0.37
5,482.0	4.30	19.00	5,349.5	995.4	262.7	1,029.5	1.90	-1.83	-5.73
5,564.0	3.30	25.50	5,431.3	1,000.5	264.7	1,034.9	1.33	-1.22	7.93
5,646.0	1.10	34.30	5,513.2	1,003.2	266.2	1,037.9	2.71	-2.68	10.73
5,727.0	1.00	54.20	5,594.2	1,004.3	267.2	1,039.2	0.46	-0.12	24.57

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5,809.0	1.00	35.70	5,676.2	1,005.3	268.2	1,040.4	0.39	0.00	-22.56
5,891.0	1.20	40.60	5,758.2	1,006.5	269.2	1,041.8	0.27	0.24	5.98
5,932.3	1.25	38.62	5,799.5	1,007.2	269.7	1,042.6	0.16	0.12	-4.80
TARGET BHL 2080'FNL, 1986'FEL									
6,054.0	1.40	33.60	5,921.2	1,009.5	271.4	1,045.3	0.16	0.12	-4.12
6,218.0	1.50	15.70	6,085.1	1,013.2	273.1	1,049.3	0.28	0.06	-10.91
6,381.0	1.70	24.60	6,248.0	1,017.5	274.7	1,053.8	0.20	0.12	5.46
6,545.0	1.90	357.40	6,412.0	1,022.4	275.6	1,058.8	0.53	0.12	-16.59
6,708.0	2.50	355.40	6,574.8	1,028.6	275.1	1,064.7	0.37	0.37	-1.23
6,871.0	1.90	352.80	6,737.7	1,034.9	274.5	1,070.6	0.37	-0.37	-1.60
7,035.0	1.30	343.00	6,901.7	1,039.3	273.6	1,074.7	0.40	-0.37	-5.98
7,198.0	1.00	338.40	7,064.6	1,042.4	272.6	1,077.5	0.19	-0.18	-2.82
7,222.8	0.90	340.15	7,089.4	1,042.8	272.4	1,077.8	0.41	-0.39	7.05
TARGET CIRCLE 2080'FNL & 1986'FEL									
7,223.9	0.90	340.24	7,090.6	1,042.8	272.4	1,077.8	0.41	-0.39	7.85
LEGAL BOX 400' X 400' 1981'FNL & 1986'FEL									
7,362.0	0.40	5.50	7,228.6	1,044.3	272.1	1,079.2	0.41	-0.36	18.30
7,525.0	0.40	357.00	7,391.6	1,045.5	272.1	1,080.3	0.04	0.00	-5.21
7,689.0	0.30	277.90	7,555.6	1,046.1	271.7	1,080.8	0.28	-0.06	-48.23
7,852.0	0.40	31.70	7,718.6	1,046.6	271.5	1,081.3	0.36	0.06	69.82
8,016.0	0.20	351.20	7,882.6	1,047.4	271.8	1,082.1	0.17	-0.12	-24.70
8,170.0	0.50	72.40	8,036.6	1,047.9	272.4	1,082.7	0.33	0.19	52.73
8,220.0	0.50	72.40	8,086.6	1,048.0	272.8	1,082.9	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____