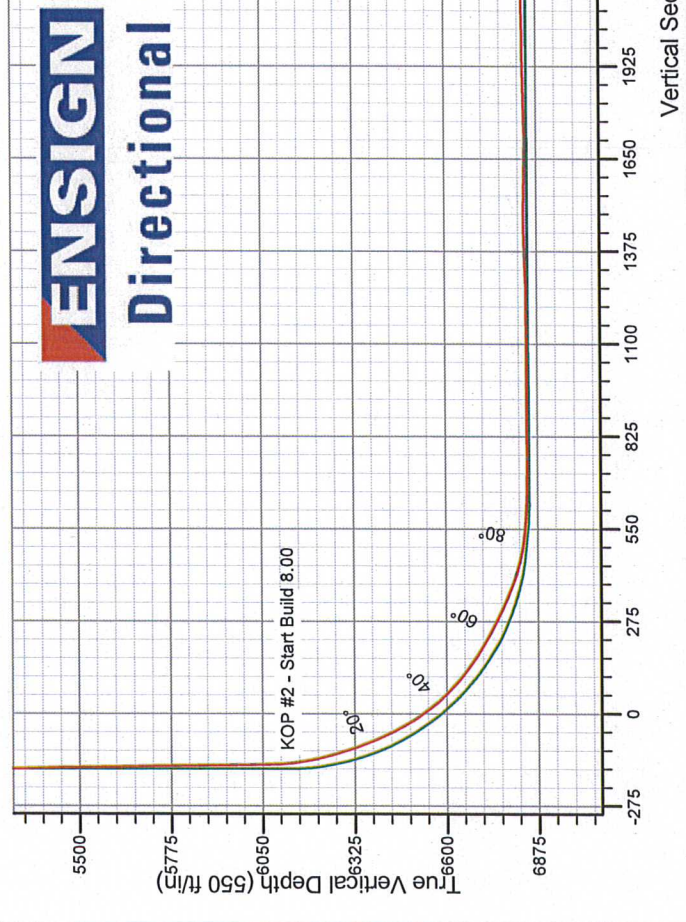
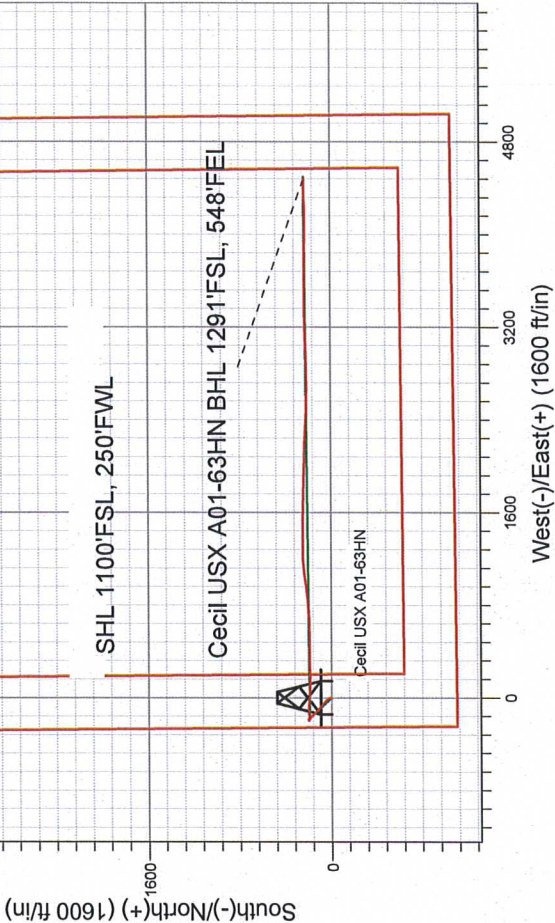


NOBLE ENERGY INC WELD COUNTY CO

Well Name: Cecil USX A01-63HN				
Surface Location: Cecil USX A01-63HN Pad Sec.1-T6N-R64W				
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone				
Ground Elevation: 4749.0		Slot		
+N/-S	+E/-W	Northing	Eastings	Longitude
0.0	0.0	1430569.67	3276135.26	40° 30' 39.852 N 104° 30' 24.768 W
Original Well Elev WELL @ 4762.0ft (Original Well Elev)				

FINAL SURVEY

Projected Bottom Hole Location
11181' MD 6840.97' TVD 233.47' N &
4481.38' E of SHL
89.6 degree Incl @ 87.6 degree AZM



LEGEND

- Cecil USX A01-63HN, Wellbore #1, Plan A Rev 3 (4/28/12) V0
- Cecil USX A01-63HN, Wellbore #1, Plan A - Rev 2 (Updated 4/23/2012) V0
- Wellbore #1

Cecil USX A01-63HN Pad Sec.1-T6N-R64W
Cecil USX A01-63HN
Wellbore #1
14:29, May 01 2012



NOBLE ENERGY INC WELD COUNTY CO

SEC.1-T6N-R64W

Cecil USX A01-63HN Pad Sec.1-T6N-R64W

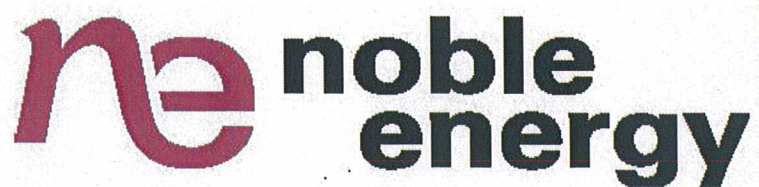
Cecil USX A01-63HN

Wellbore #1

Design: Wellbore #1

Standard Survey Report

01 May, 2012



Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63HN	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.1-T6N-R64W, 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		Cecil USX A01-63HN Pad Sec.1-T6N-R64W			
Site Position:		Northing:	1,430,569.68 ft	Latitude:	40° 30' 39.852 N
From:	Lat/Long	Easting:	3,276,135.26 ft	Longitude:	104° 30' 24.768 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.64 °

Well	Cecil USX A01-63HN					
Well Position	+N/-S	0.0 ft	Northing:	1,430,569.67 ft	Latitude:	40° 30' 39.852 N
	+E/-W	0.0 ft	Easting:	3,276,135.26 ft	Longitude:	104° 30' 24.768 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,749.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	4/5/2012	8.58	67.16	53,155

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	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	87.02	

Survey Program	Date 5/1/2012				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
920.0	11,181.0	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
920.0	0.00	0.00	920.0	0.0	0.0	0.0	0.00	0.00	0.00
974.0	0.40	210.50	974.0	-0.2	-0.1	-0.1	0.74	0.74	0.00
1,005.0	0.40	168.00	1,005.0	-0.4	-0.1	-0.1	0.94	0.00	-137.10
1,098.0	0.40	176.70	1,098.0	-1.0	0.0	-0.1	0.07	0.00	9.35
1,197.0	0.40	206.60	1,197.0	-1.7	-0.2	-0.3	0.21	0.00	30.20
1,292.0	0.40	201.20	1,292.0	-2.3	-0.4	-0.6	0.04	0.00	-5.68
1,386.0	0.40	159.70	1,386.0	-2.9	-0.4	-0.6	0.30	0.00	-44.15
1,481.0	0.80	65.80	1,481.0	-2.9	0.3	0.1	0.97	0.42	-98.84
1,576.0	3.50	8.30	1,575.9	0.2	1.3	1.3	3.31	2.84	-60.53
1,670.0	6.90	350.20	1,669.5	8.6	0.7	1.2	3.97	3.62	-19.26
1,762.0	8.40	331.40	1,760.7	20.0	-3.4	-2.4	3.15	1.63	-20.43
1,856.0	10.70	326.20	1,853.4	33.3	-11.6	-9.8	2.61	2.45	-5.53

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63HN	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
1,951.0	11.30	315.80	1,946.7	47.3	-22.9	-20.5	2.18	0.63	-10.95
2,046.0	12.30	311.00	2,039.7	60.6	-37.1	-33.9	1.47	1.05	-5.05
2,141.0	12.00	305.90	2,132.5	73.0	-52.7	-48.9	1.17	-0.32	-5.37
2,236.0	11.90	311.00	2,225.5	85.2	-68.1	-63.6	1.12	-0.11	5.37
2,330.0	11.00	313.70	2,317.6	97.8	-81.9	-76.7	1.11	-0.96	2.87
2,425.0	11.20	310.50	2,410.8	110.0	-95.5	-89.6	0.68	0.21	-3.37
2,520.0	12.00	312.60	2,503.9	122.7	-109.8	-103.2	0.95	0.84	2.21
2,615.0	11.80	314.20	2,596.9	136.2	-124.0	-116.8	0.41	-0.21	1.68
2,710.0	10.60	315.30	2,690.0	149.1	-137.1	-129.2	1.28	-1.26	1.16
2,805.0	10.20	319.70	2,783.5	161.8	-148.7	-140.1	0.94	-0.42	4.63
2,900.0	8.10	318.80	2,877.3	173.2	-158.5	-149.3	2.22	-2.21	-0.95
2,995.0	7.50	317.20	2,971.4	182.8	-167.2	-157.4	0.67	-0.63	-1.68
3,090.0	5.30	306.50	3,065.8	190.0	-174.9	-164.8	2.62	-2.32	-11.26
3,185.0	2.90	325.80	3,160.5	194.6	-179.8	-169.4	2.88	-2.53	20.32
3,280.0	3.10	303.00	3,255.4	198.0	-183.3	-172.8	1.26	0.21	-24.00
3,375.0	1.90	338.60	3,350.3	200.8	-186.0	-175.3	2.01	-1.26	37.47
3,470.0	0.70	235.10	3,445.3	202.0	-187.1	-176.3	2.29	-1.26	-108.95
3,564.0	1.00	219.60	3,539.3	201.0	-188.1	-177.4	0.40	0.32	-16.49
3,659.0	1.20	235.80	3,634.3	199.8	-189.4	-178.8	0.39	0.21	17.05
3,754.0	0.60	232.80	3,729.3	198.9	-190.6	-180.0	0.63	-0.63	-3.16
3,849.0	1.00	260.90	3,824.3	198.5	-191.8	-181.3	0.58	0.42	29.58
3,944.0	0.60	250.00	3,919.3	198.2	-193.1	-182.6	0.45	-0.42	-11.47
4,039.0	1.00	117.20	4,014.3	197.7	-192.9	-182.3	1.55	0.42	-139.79
4,134.0	0.90	117.00	4,109.2	196.9	-191.5	-181.0	0.11	-0.11	-0.21
4,229.0	0.80	111.90	4,204.2	196.4	-190.2	-179.7	0.13	-0.11	-5.37
4,324.0	0.40	71.80	4,299.2	196.2	-189.2	-178.8	0.59	-0.42	-42.21
4,419.0	0.30	80.90	4,394.2	196.4	-188.7	-178.2	0.12	-0.11	9.58
4,514.0	0.30	339.20	4,489.2	196.6	-188.5	-178.1	0.49	0.00	-107.05
4,609.0	1.10	95.40	4,584.2	196.8	-187.7	-177.2	1.33	0.84	122.32
4,704.0	1.80	77.10	4,679.2	197.0	-185.3	-174.9	0.87	0.74	-19.26
4,798.0	1.50	79.00	4,773.1	197.6	-182.7	-172.2	0.32	-0.32	2.02
4,893.0	1.20	106.40	4,868.1	197.5	-180.5	-170.0	0.74	-0.32	28.84
4,988.0	0.90	120.00	4,963.1	196.9	-178.9	-168.5	0.41	-0.32	14.32
5,083.0	0.60	124.50	5,058.1	196.2	-177.9	-167.4	0.32	-0.32	4.74
5,178.0	1.00	125.80	5,153.1	195.5	-176.8	-166.4	0.42	0.42	1.37
5,273.0	0.70	130.30	5,248.1	194.6	-175.7	-165.3	0.32	-0.32	4.74
5,368.0	1.40	91.50	5,343.1	194.2	-174.1	-163.7	1.01	0.74	-40.84
5,463.0	1.50	97.30	5,438.0	194.0	-171.7	-161.4	0.19	0.11	6.11
5,558.0	1.10	95.90	5,533.0	193.8	-169.5	-159.2	0.42	-0.42	-1.47
5,653.0	0.90	89.90	5,628.0	193.7	-167.9	-157.6	0.24	-0.21	-6.32
5,748.0	0.70	81.10	5,723.0	193.8	-166.6	-156.3	0.25	-0.21	-9.26
5,843.0	0.80	82.90	5,818.0	193.9	-165.3	-155.0	0.11	0.11	1.89
5,938.0	0.70	111.00	5,913.0	193.8	-164.1	-153.8	0.40	-0.11	29.58
6,033.0	0.50	116.40	6,008.0	193.4	-163.2	-153.0	0.22	-0.21	5.68
6,128.0	3.00	88.80	6,102.9	193.3	-160.4	-150.1	2.70	2.63	-29.05
6,223.0	11.60	77.10	6,197.1	195.5	-148.5	-138.2	9.14	9.05	-12.32
6,318.0	17.20	83.40	6,289.0	199.2	-125.3	-114.7	6.11	5.89	6.63
6,413.0	22.40	89.60	6,378.4	201.0	-93.2	-82.6	5.90	5.47	6.53
6,508.0	28.50	94.10	6,464.2	199.5	-52.4	-42.0	6.73	6.42	4.74
6,603.0	38.00	97.10	6,543.5	194.2	-0.7	9.4	10.15	10.00	3.16
6,698.0	45.90	93.20	6,614.1	188.7	62.5	72.2	8.75	8.32	-4.11
6,745.0	50.90	91.80	6,645.3	187.2	97.6	107.2	10.87	10.64	-2.98
6,793.0	54.60	89.70	6,674.4	186.7	135.8	145.3	8.46	7.71	-4.38
6,840.0	57.60	89.90	6,700.6	186.8	174.8	184.3	6.39	6.38	0.43

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63HN	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
6,888.0	60.00	89.70	6,725.4	187.0	215.9	225.3	5.01	5.00	-0.42
6,935.0	63.00	89.20	6,747.9	187.4	257.2	266.5	6.45	6.38	-1.06
6,983.0	65.20	86.60	6,768.8	189.0	300.3	309.7	6.69	4.58	-5.42
7,030.0	67.00	86.60	6,787.9	191.5	343.2	352.7	3.83	3.83	0.00
7,078.0	70.30	89.90	6,805.4	192.9	387.9	397.4	9.39	6.88	6.88
7,125.0	75.00	90.30	6,819.4	192.8	432.7	442.1	10.03	10.00	0.85
7,184.0	81.20	89.70	6,831.5	192.8	490.4	499.8	10.56	10.51	-1.02
7,234.0	85.00	89.70	6,837.5	193.0	540.0	549.3	7.60	7.60	0.00
7,251.0	86.00	88.80	6,838.9	193.3	557.0	566.3	7.90	5.88	-5.29
7,299.0	86.80	90.10	6,841.9	193.7	604.9	614.1	3.18	1.67	2.71
7,394.0	90.30	88.70	6,844.3	194.7	699.8	709.0	3.97	3.68	-1.47
7,489.0	90.30	85.50	6,843.8	199.5	794.7	804.0	3.37	0.00	-3.37
7,584.0	90.30	83.20	6,843.3	208.9	889.2	898.9	2.42	0.00	-2.42
7,679.0	90.00	81.30	6,843.0	221.7	983.4	993.6	2.02	-0.32	-2.00
7,774.0	90.10	82.30	6,843.0	235.2	1,077.4	1,088.2	1.06	0.11	1.05
7,869.0	90.00	85.70	6,842.9	245.2	1,171.9	1,183.0	3.58	-0.11	3.58
7,964.0	91.30	91.10	6,841.8	247.8	1,266.8	1,277.9	5.85	1.37	5.68
8,059.0	92.60	91.30	6,838.6	245.8	1,361.7	1,372.6	1.38	1.37	0.21
8,154.0	90.30	89.40	6,836.2	245.2	1,456.7	1,467.4	3.14	-2.42	-2.00
8,249.0	88.50	90.10	6,837.2	245.7	1,551.6	1,562.3	2.03	-1.89	0.74
8,344.0	88.70	90.80	6,839.5	244.9	1,646.6	1,657.1	0.77	0.21	0.74
8,439.0	91.50	92.50	6,839.3	242.2	1,741.6	1,751.8	3.45	2.95	1.79
8,534.0	90.80	91.70	6,837.4	238.7	1,836.5	1,846.4	1.12	-0.74	-0.84
8,629.0	91.00	91.50	6,835.9	236.0	1,931.4	1,941.1	0.30	0.21	-0.21
8,724.0	91.40	91.30	6,833.9	233.7	2,026.4	2,035.8	0.47	0.42	-0.21
8,819.0	90.70	91.50	6,832.2	231.4	2,121.3	2,130.5	0.77	-0.74	0.21
8,914.0	91.00	93.20	6,830.8	227.5	2,216.2	2,225.1	1.82	0.32	1.79
9,009.0	87.80	93.10	6,831.8	222.3	2,311.1	2,319.5	3.37	-3.37	-0.11
9,104.0	84.90	92.50	6,837.8	217.7	2,405.8	2,413.8	3.12	-3.05	-0.63
9,199.0	85.40	92.50	6,845.8	213.5	2,500.3	2,508.0	0.53	0.53	0.00
9,294.0	87.80	91.00	6,851.5	210.6	2,595.1	2,602.5	2.98	2.53	-1.58
9,389.0	89.20	89.40	6,854.0	210.3	2,690.1	2,697.4	2.24	1.47	-1.68
9,484.0	91.20	89.40	6,853.6	211.3	2,785.1	2,792.3	2.11	2.11	0.00
9,579.0	91.40	87.80	6,851.5	213.6	2,880.0	2,887.2	1.70	0.21	-1.68
9,674.0	90.70	88.10	6,849.7	217.0	2,974.9	2,982.2	0.80	-0.74	0.32
9,769.0	89.20	88.00	6,849.8	220.3	3,069.9	3,077.2	1.58	-1.58	-0.11
9,864.0	89.90	88.80	6,850.6	222.9	3,164.8	3,172.1	1.12	0.74	0.84
9,959.0	89.90	89.40	6,850.7	224.4	3,259.8	3,267.1	0.63	0.00	0.63
10,053.0	92.20	90.60	6,849.0	224.4	3,353.8	3,360.9	2.76	2.45	1.28
10,148.0	91.50	89.00	6,845.9	224.7	3,448.7	3,455.8	1.84	-0.74	-1.68
10,243.0	90.90	89.60	6,844.0	225.9	3,543.7	3,550.7	0.89	-0.63	0.63
10,338.0	90.10	89.60	6,843.1	226.6	3,638.7	3,645.6	0.84	-0.84	0.00
10,433.0	89.70	90.30	6,843.3	226.6	3,733.7	3,740.4	0.85	-0.42	0.74
10,528.0	89.80	89.70	6,843.7	226.6	3,828.7	3,835.3	0.64	0.11	-0.63
10,623.0	90.90	91.10	6,843.1	226.0	3,923.7	3,930.1	1.87	1.16	1.47
10,718.0	92.20	90.80	6,840.6	224.4	4,018.6	4,024.9	1.40	1.37	-0.32
10,813.0	91.50	90.30	6,837.5	223.5	4,113.6	4,119.6	0.91	-0.74	-0.53
10,908.0	88.80	89.00	6,837.2	224.1	4,208.6	4,214.5	3.15	-2.84	-1.37
11,002.0	89.10	88.10	6,839.0	226.4	4,302.5	4,308.5	1.01	0.32	-0.96
11,097.0	89.40	88.00	6,840.2	229.7	4,397.5	4,403.5	0.33	0.32	-0.11
11,129.0	89.60	87.60	6,840.5	230.9	4,429.4	4,435.5	1.40	0.63	-1.25
11,181.0	89.60	87.60	6,840.8	233.1	4,481.4	4,487.5	0.00	0.00	0.00

Cecil USX A01-63HN BHL 1290°FSL, 535°FEL

Company:	NOBLE ENERGY INC WELD COUNTY CO	Local Co-ordinate Reference:	Well Cecil USX A01-63HN
Project:	SEC.1-T6N-R64W	TVD Reference:	WELL @ 4762.0ft (Original Well Elev)
Site:	Cecil USX A01-63HN Pad Sec.1-T6N-R64W	MD Reference:	WELL @ 4762.0ft (Original Well Elev)
Well:	Cecil USX A01-63HN	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Checked By: _____	Approved By: _____	Date: _____
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