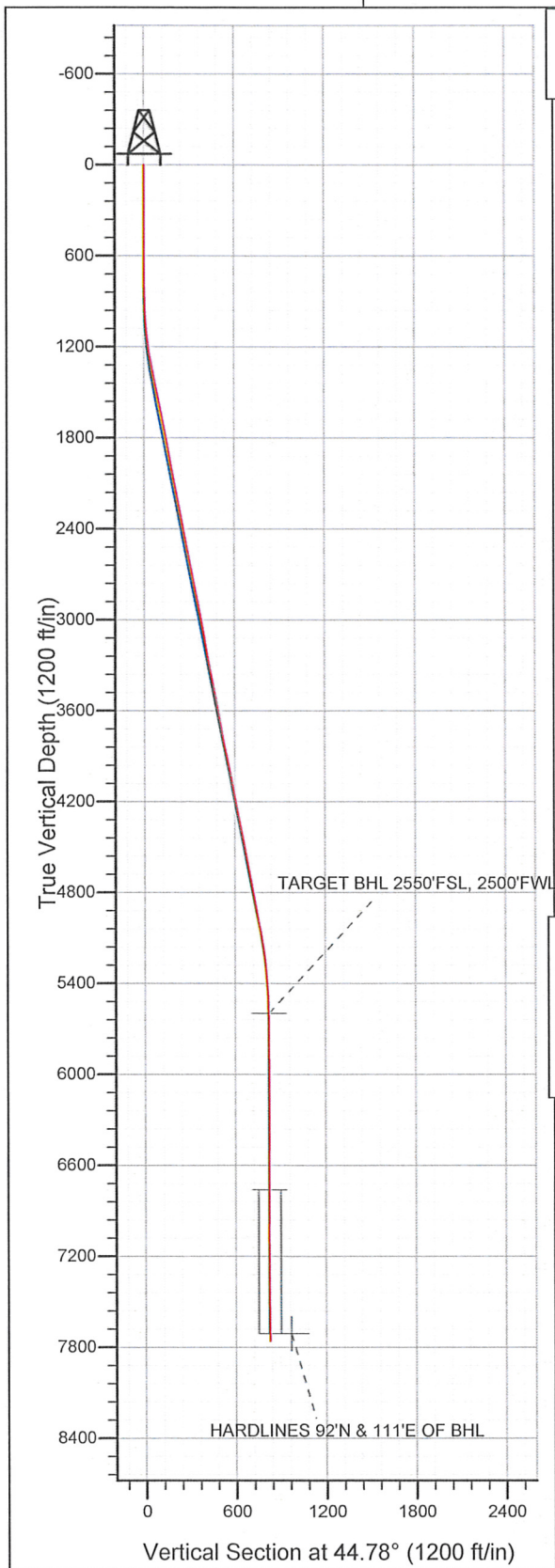
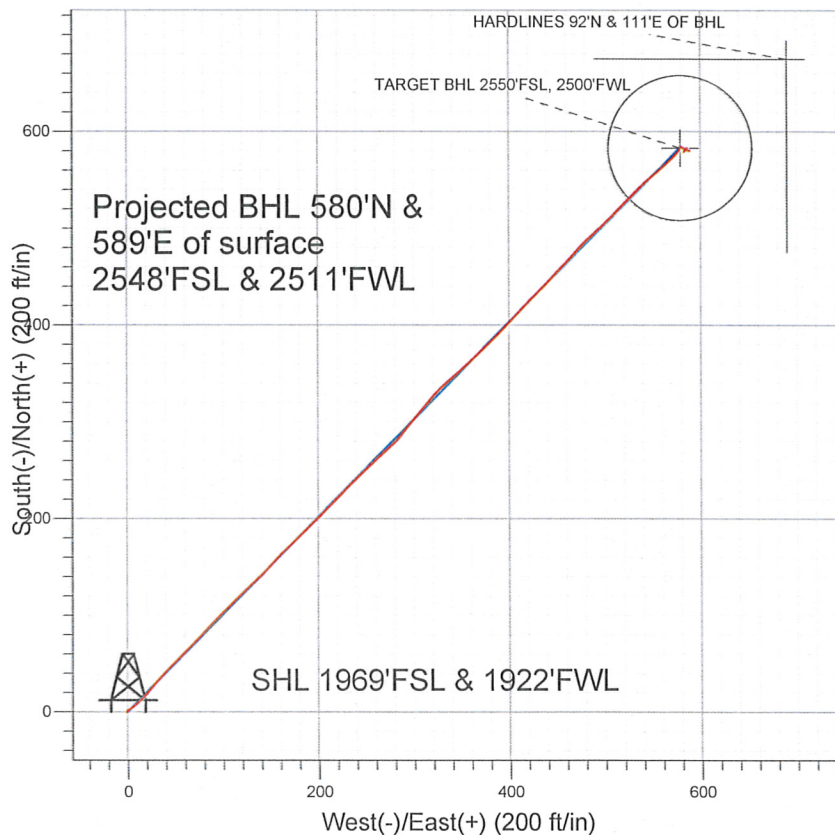


Well Name: **Dechant State H36-21D**
 Surface Location: Dechant State H36-21D Pad Sec.36-T3N-R65W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone
 Ground Elevation: 4819.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1309549.05 3247306.37 40° 10' 46.992 N 104° 36' 53.640 W
 Original Well Elev WELL @ 4832.0ft (Original Well Elev)



NOBLE ENERGY INC WELD COUNTY CO



LEGEND

- Dechant State H36-21D, Wellbore #1, Noble Dechant State H36-21D Plan #3 (11-05-10) VI
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 7836'MD & 7760'TVD @ 827'VS
 1.0 deg Inc 98.5 deg AZ

Project: SEC.36-T3N-R65W
 Site: Dechant State H36-21D Pad Sec.36-T3N-R65W
 Well: Dechant State H36-21D
 Plan: Wellbore #1

Company: NOBLE ENERGY INC WELD COUNTY CO
 Project: SEC.36-T3N-R65W
 Site: Dechant State H36-21D Pad Sec.36-T3N-R65W
 Well: Dechant State H36-21D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Dechant State H36-21D Pad Sec.36-T3N-R65W
 TVD Reference: WELL @ 4832.0ft (Original Well Elev)
 MD Reference: WELL @ 4832.0ft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: Landmark

Project	SEC.36-T3N-R65W, 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	Dechant State H36-21D Pad Sec.36-T3N-R65W				
Site Position:		Northing:	1,309,549.05 ft	Latitude:	40° 10' 46.992 N
From:	Lat/Long	Easting:	3,247,306.37 ft	Longitude:	104° 36' 53.640 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.57 °

Well	Dechant State H36-21D					
Well Position	+N/-S	0.0 ft	Northing:	1,309,549.05 ft	Latitude:	40° 10' 46.992 N
	+E/-W	0.0 ft	Easting:	3,247,306.37 ft	Longitude:	104° 36' 53.640 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,819.0 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/5/2010	8.85	66.92	53,096

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	44.78	

Survey Program	Date 4/26/2011				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
812.0	7,836.0	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
812.0	0.20	17.20	812.0	1.3	0.4	1.3	0.02	0.02	0.00
874.0	1.00	50.90	874.0	1.8	0.9	1.9	1.36	1.29	54.35
967.0	2.50	54.20	966.9	3.5	3.1	4.7	1.62	1.61	3.55
1,060.0	5.10	55.60	1,059.7	7.0	8.2	10.8	2.80	2.80	1.51
1,155.0	6.70	42.50	1,154.2	13.5	15.4	20.4	2.19	1.68	-13.79
1,248.0	8.70	40.30	1,246.4	22.8	23.6	32.9	2.17	2.15	-2.37
1,342.0	10.90	42.60	1,339.0	34.8	34.3	48.9	2.38	2.34	2.45
1,435.0	11.50	44.20	1,430.2	47.9	46.7	66.9	0.73	0.65	1.72
1,529.0	11.80	44.90	1,522.3	61.5	60.0	85.9	0.35	0.32	0.74
1,622.0	11.70	44.20	1,613.4	75.0	73.3	104.8	0.19	-0.11	-0.75
1,716.0	11.20	42.30	1,705.5	88.5	86.1	123.5	0.67	-0.53	-2.02

Company: NOBLE ENERGY INC WELD COUNTY CO
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 Well: Dechant State H36-21D
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Site Dechant State H36-21D Pad
 Sec.36-T3N-R65W
 TVD Reference: WELL @ 4832.0ft (Original Well Elev)
 MD Reference: WELL @ 4832.0ft (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)
1,810.0	11.20	45.90	1,797.7	101.6	98.8	141.7	0.74	0.00	3.83
1,905.0	10.80	45.20	1,891.0	114.3	111.7	159.9	0.44	-0.42	-0.74
1,998.0	10.90	46.60	1,982.3	126.5	124.3	177.4	0.30	0.11	1.51
2,090.0	11.30	47.30	2,072.6	138.6	137.2	195.1	0.46	0.43	0.76
2,184.0	11.00	41.80	2,164.8	151.5	150.0	213.2	1.18	-0.32	-5.85
2,277.0	10.50	45.10	2,256.2	164.1	161.9	230.5	0.85	-0.54	3.55
2,370.0	11.00	48.20	2,347.5	176.0	174.5	247.9	0.82	0.54	3.33
2,463.0	11.10	45.20	2,438.8	188.3	187.5	265.7	0.63	0.11	-3.23
2,557.0	11.30	45.30	2,531.0	201.1	200.4	283.9	0.21	0.21	0.11
2,652.0	11.30	43.20	2,624.2	214.4	213.4	302.6	0.43	0.00	-2.21
2,746.0	12.10	46.10	2,716.2	228.0	226.8	321.6	1.06	0.85	3.09
2,839.0	11.30	44.90	2,807.3	241.2	240.3	340.5	0.90	-0.86	-1.29
2,933.0	10.90	46.20	2,899.5	253.9	253.2	358.6	0.50	-0.43	1.38
3,026.0	10.00	49.10	2,991.0	265.2	265.6	375.4	1.12	-0.97	3.12
3,120.0	10.60	45.70	3,083.5	276.6	278.0	392.2	0.91	0.64	-3.62
3,213.0	10.10	36.80	3,175.0	289.1	289.0	408.8	1.80	-0.54	-9.57
3,306.0	10.90	41.60	3,266.4	302.2	299.7	425.7	1.27	0.86	5.16
3,400.0	10.50	39.40	3,358.8	315.5	311.1	443.1	0.61	-0.43	-2.34
3,494.0	10.90	41.90	3,451.1	328.7	322.4	460.5	0.65	0.43	2.66
3,588.0	11.40	49.70	3,543.4	341.4	335.5	478.6	1.69	0.53	8.30
3,681.0	9.40	48.30	3,634.8	352.4	348.1	495.3	2.17	-2.15	-1.51
3,774.0	10.80	48.10	3,726.4	363.2	360.3	511.6	1.51	1.51	-0.22
3,868.0	11.10	43.70	3,818.7	375.7	373.1	529.5	0.94	0.32	-4.68
3,961.0	11.60	47.50	3,909.9	388.4	386.2	547.8	0.97	0.54	4.09
4,054.0	12.30	42.60	4,000.9	402.1	399.8	567.0	1.32	0.75	-5.27
4,148.0	10.80	42.30	4,093.0	415.9	412.5	585.8	1.60	-1.60	-0.32
4,242.0	10.80	46.00	4,185.3	428.6	424.8	603.4	0.74	0.00	3.94
4,336.0	11.70	44.50	4,277.5	441.5	437.8	621.7	1.01	0.96	-1.60
4,429.0	10.90	43.60	4,368.7	454.6	450.4	640.0	0.88	-0.86	-0.97
4,523.0	11.80	42.90	4,460.8	468.1	463.1	658.5	0.97	0.96	-0.74
4,617.0	11.20	42.90	4,553.0	481.8	475.9	677.2	0.64	-0.64	0.00
4,711.0	10.30	48.80	4,645.3	494.0	488.4	694.7	1.51	-0.96	6.28
4,804.0	9.50	45.70	4,736.9	504.8	500.2	710.7	1.03	-0.86	-3.33
4,898.0	10.20	43.90	4,829.5	516.3	511.5	726.7	0.81	0.74	-1.91
4,991.0	10.60	43.40	4,921.0	528.4	523.1	743.5	0.44	0.43	-0.54
5,085.0	11.60	46.10	5,013.2	541.2	535.8	761.6	1.20	1.06	2.87
5,178.0	10.00	49.30	5,104.6	553.0	548.7	779.0	1.84	-1.72	3.44
5,272.0	7.30	49.10	5,197.5	562.2	559.4	793.1	2.87	-2.87	-0.21
5,365.0	6.10	46.40	5,289.9	569.5	567.4	803.9	1.33	-1.29	-2.90
5,458.0	4.70	44.90	5,382.5	575.6	573.7	812.7	1.51	-1.51	-1.61
5,551.0	2.40	36.60	5,475.3	579.9	577.6	818.4	2.53	-2.47	-8.92
5,645.0	1.80	11.70	5,569.2	582.9	579.0	821.6	1.15	-0.64	-26.49
5,675.8	1.22	19.50	5,600.0	583.7	579.2	822.3	2.00	-1.89	25.34
TARGET BHL 2550'FSL, 2500'FWL									
5,738.0	0.50	100.50	5,662.2	584.3	579.7	823.1	2.00	-1.16	130.17
5,831.0	0.90	109.90	5,755.2	583.9	580.8	823.6	0.45	0.43	10.11
5,924.0	1.20	120.20	5,848.2	583.2	582.3	824.2	0.38	0.32	11.08
6,020.0	0.40	95.40	5,944.2	582.7	583.5	824.6	0.89	-0.83	-25.83
6,114.0	1.20	126.00	6,038.2	582.0	584.7	825.0	0.94	0.85	32.55
6,208.0	1.10	35.10	6,132.1	582.2	586.0	826.0	1.75	-0.11	-96.70
6,301.0	0.10	34.30	6,225.1	583.0	586.5	827.0	1.08	-1.08	-0.86
6,393.0	0.20	215.96	6,317.1	582.9	586.5	826.9	0.33	0.11	-193.85
6,487.0	0.30	246.60	6,411.1	582.7	586.2	826.5	0.17	0.11	32.60

Company: NOBLE ENERGY INC WELD COUNTY CO
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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)
6,580.0	0.90	217.50	6,504.1	582.0	585.5	825.6	0.70	0.65	-31.29
6,674.0	0.70	230.00	6,598.1	581.1	584.6	824.3	0.28	-0.21	13.30
6,767.0	0.50	209.80	6,691.1	580.4	584.0	823.3	0.31	-0.22	-21.72
6,837.9	0.28	214.72	6,762.0	580.0	583.7	822.8	0.32	-0.32	6.94
TARGET CIRCLE 2500'FNL, 2500'FWL									
6,862.0	0.20	218.90	6,786.1	579.9	583.7	822.7	0.32	-0.31	17.34
6,955.0	0.30	233.80	6,879.1	579.6	583.4	822.3	0.13	0.11	16.02
7,049.0	0.10	53.90	6,973.1	579.5	583.2	822.2	0.43	-0.21	-191.38
7,143.0	0.40	61.20	7,067.1	579.7	583.6	822.6	0.32	0.32	7.77
7,236.0	0.50	34.70	7,160.1	580.2	584.1	823.3	0.25	0.11	-28.49
7,330.0	0.30	47.60	7,254.1	580.7	584.5	823.9	0.23	-0.21	13.72
7,424.0	0.10	273.40	7,348.1	580.9	584.6	824.1	0.40	-0.21	-142.77
7,517.0	0.50	85.40	7,441.1	580.9	584.9	824.4	0.64	0.43	184.95
7,611.0	0.50	85.40	7,535.1	581.0	585.8	825.0	0.00	0.00	0.00
7,705.0	1.00	102.80	7,629.1	580.8	587.0	825.7	0.58	0.53	18.51
7,789.3	1.00	98.58	7,713.4	580.6	588.4	826.6	0.09	0.00	-5.00
HARDLINES 92'N & 111'E OF BHL									
7,791.0	1.00	98.50	7,715.1	580.6	588.4	826.6	0.09	0.00	-5.00
7,836.0	1.00	98.50	7,760.1	580.4	589.2	827.0	0.00	0.00	0.00

Checked By: _____ Approved By: _____ Date: _____