



Well Name: **Coors Energy 33-25D**

Surface Location: Coors Energy 33-25D Pad Sec.25-T3N-R64W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

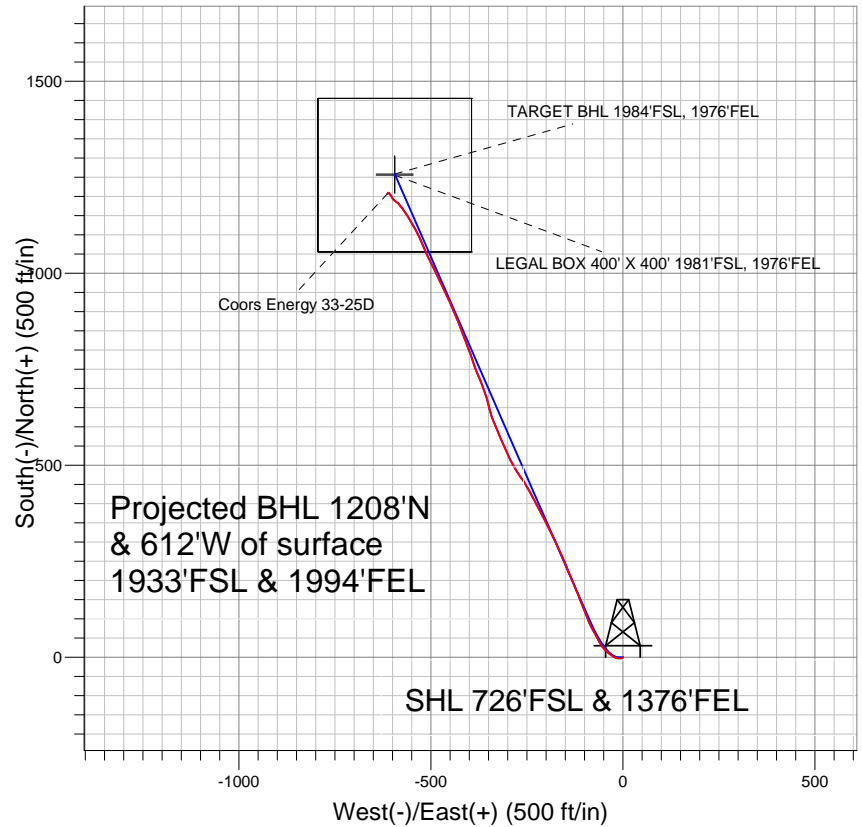
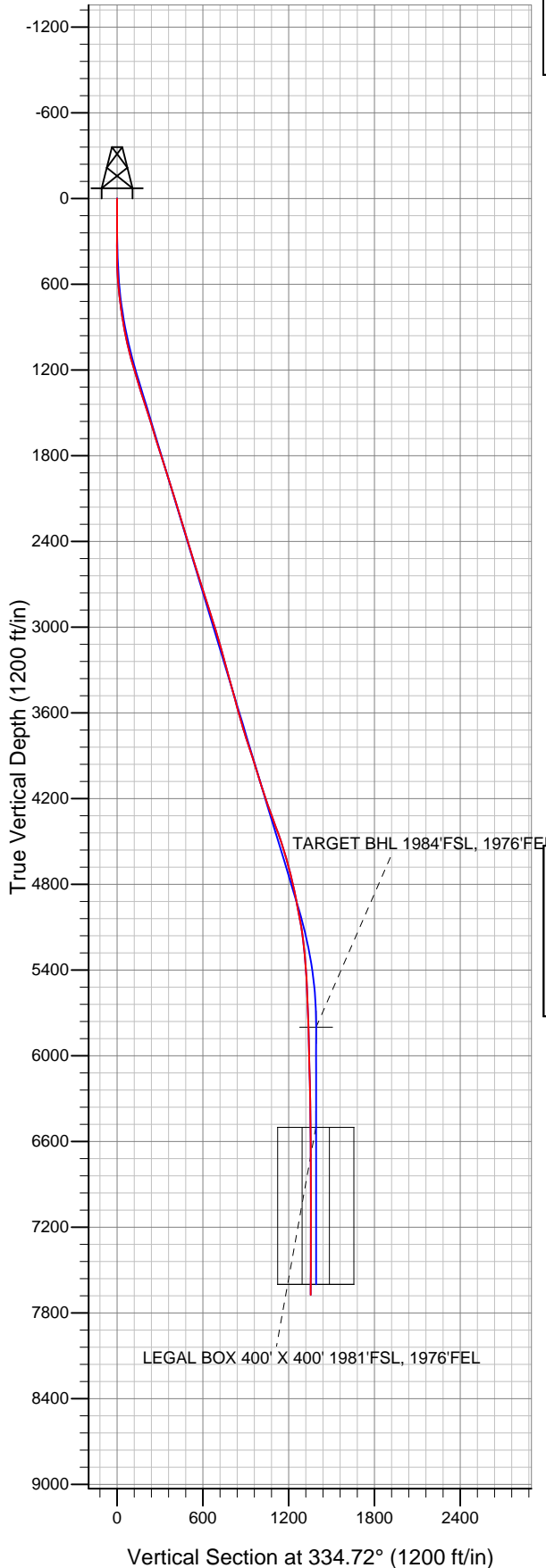
Ground Elevation: 4790.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1314068.68	3280680.96	40° 11' 28.140 N	104° 29' 43.008 W

Original Well Elev WELL @ 4803.0ft (Original Well Elev)

Slot

## PETROLEUM DEVELOPMENT CORP Weld County CO



### LEGEND

- △ Coors Energy 33-25D, Wellbore #1, Plan #2 (5-02-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
7864'MD & 7674'TVD @ 1354'VS  
0.3 deg Inc 150.3 deg AZ

Project: SEC.25-T3N-R64W  
Site: Coors Energy 33-25D Pad Sec.25-T3N-R64W  
Well: Coors Energy 33-25D  
Plan: Wellbore #1



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.25-T3N-R64W**

**Coors Energy 33-25D Pad Sec.25-T3N-R64W**

**Coors Energy 33-25D**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**01 August, 2011**

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Coors Energy 33-25D
<b>Project:</b>	SEC.25-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4803.0ft (Original Well Elev)
<b>Site:</b>	Coors Energy 33-25D Pad Sec.25-T3N-R64W	<b>MD Reference:</b>	WELL @ 4803.0ft (Original Well Elev)
<b>Well:</b>	Coors Energy 33-25D	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	Landmark

<b>Project</b>	SEC.25-T3N-R64W, Weld County, Colorado		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site	Coors Energy 33-25D Pad Sec.25-T3N-R64W				
Site Position:		Northing:	1,314,068.69ft	Latitude:	40° 11' 28.140 N
From:	Lat/Long	Easting:	3,280,680.96ft	Longitude:	104° 29' 43.008 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.65 °

Well	Coors Energy 33-25D					
Well Position	+N-S	0.0 ft	Northing:	1,314,068.68 ft	Latitude:	40° 11' 28.140 N
	+E-W	0.0 ft	Easting:	3,280,680.96 ft	Longitude:	104° 29' 43.008 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,790.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	5/2/2011	8.72	66.93	53,064

<b>Design</b>	Wellbore #1				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	334.72	

<b>Survey Program</b>	<b>Date</b>	8/1/2011			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
150.0	7,864.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
150.0	0.40	224.90	150.0	-0.4	-0.4	-0.2	0.27	0.27	0.00	
240.0	1.00	215.50	240.0	-1.2	-1.0	-0.7	0.68	0.67	-10.44	
331.0	1.80	235.80	331.0	-2.7	-2.7	-1.3	1.02	0.88	22.31	
422.0	2.60	264.50	421.9	-3.7	-5.9	-0.8	1.47	0.88	31.54	
514.0	4.40	278.00	513.7	-3.4	-11.5	1.8	2.14	1.96	14.67	
607.0	6.60	294.60	606.3	-0.7	-19.9	7.9	2.90	2.37	17.85	
700.0	8.70	306.00	698.5	5.7	-30.4	18.1	2.78	2.26	12.26	
769.0	8.60	305.80	766.7	11.8	-38.9	27.2	0.15	-0.14	-0.29	
864.0	9.70	322.30	860.5	22.3	-49.5	41.3	2.98	1.16	17.37	
959.0	11.60	327.80	953.9	36.7	-59.5	58.6	2.27	2.00	5.79	
1,054.0	13.20	331.90	1,046.6	54.3	-69.7	78.9	1.92	1.68	4.32	

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Coors Energy 33-25D
<b>Project:</b>	SEC.25-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4803.0ft (Original Well Elev)
<b>Site:</b>	Coors Energy 33-25D Pad Sec.25-T3N-R64W	<b>MD Reference:</b>	WELL @ 4803.0ft (Original Well Elev)
<b>Well:</b>	Coors Energy 33-25D	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
1,149.0	15.10	331.90	1,138.7	74.8	-80.6	102.1	2.00	2.00	0.00
1,244.0	17.40	338.50	1,230.0	99.0	-91.7	128.6	3.10	2.42	6.95
1,339.0	17.40	338.20	1,320.6	125.4	-102.1	157.0	0.09	0.00	-0.32
1,434.0	17.70	339.70	1,411.2	152.1	-112.4	185.5	0.57	0.32	1.58
1,529.0	17.80	336.30	1,501.7	178.9	-123.3	214.4	1.10	0.11	-3.58
1,624.0	17.50	338.30	1,592.2	205.5	-134.4	243.2	0.71	-0.32	2.11
1,719.0	17.20	334.80	1,682.9	231.5	-145.7	271.5	1.14	-0.32	-3.68
1,814.0	17.70	338.40	1,773.5	257.6	-157.0	300.0	1.25	0.53	3.79
1,909.0	17.70	336.30	1,864.0	284.3	-168.1	328.8	0.67	0.00	-2.21
2,004.0	17.30	333.90	1,954.6	310.2	-180.1	357.4	0.87	-0.42	-2.53
2,098.0	17.60	334.00	2,044.3	335.5	-192.5	385.6	0.32	0.32	0.11
2,193.0	16.60	331.00	2,135.1	360.3	-205.4	413.5	1.40	-1.05	-3.16
2,288.0	16.80	331.80	2,226.1	384.3	-218.4	440.7	0.32	0.21	0.84
2,383.0	17.60	332.20	2,316.8	409.1	-231.6	468.8	0.85	0.84	0.42
2,478.0	16.90	332.70	2,407.6	434.0	-244.6	496.9	0.75	-0.74	0.53
2,573.0	16.90	327.40	2,498.5	457.9	-258.4	524.4	1.62	0.00	-5.58
2,668.0	17.30	325.00	2,589.3	481.1	-274.0	552.1	0.85	0.42	-2.53
2,763.0	17.30	331.60	2,680.0	505.1	-288.8	580.1	2.06	0.00	6.95
2,858.0	18.00	335.20	2,770.5	530.9	-301.7	608.9	1.36	0.74	3.79
2,953.0	17.90	336.60	2,860.9	557.6	-313.6	638.1	0.47	-0.11	1.47
3,048.0	18.30	339.70	2,951.2	585.0	-324.6	667.6	1.10	0.42	3.26
3,143.0	16.50	334.80	3,041.8	611.2	-335.5	695.9	2.44	-1.89	-5.16
3,239.0	15.20	345.00	3,134.2	635.7	-344.6	722.0	3.20	-1.35	10.63
3,333.0	16.50	346.30	3,224.6	660.6	-350.9	747.2	1.43	1.38	1.38
3,428.0	15.70	339.70	3,315.9	685.7	-358.6	773.2	2.10	-0.84	-6.95
3,521.0	15.40	340.30	3,405.5	709.2	-367.1	798.0	0.37	-0.32	0.65
3,616.0	14.60	336.10	3,497.3	732.0	-376.2	822.5	1.42	-0.84	-4.42
3,711.0	15.60	340.30	3,589.0	755.0	-385.4	847.2	1.56	1.05	4.42
3,806.0	16.00	341.80	3,680.4	779.4	-393.8	872.9	0.60	0.42	1.58
3,901.0	18.70	339.10	3,771.1	806.1	-403.3	901.1	2.97	2.84	-2.84
3,996.0	18.20	338.30	3,861.2	834.1	-414.2	931.1	0.59	-0.53	-0.84
4,091.0	16.40	339.40	3,951.9	860.4	-424.4	959.3	1.93	-1.89	1.16
4,186.0	17.20	337.70	4,042.8	886.0	-434.4	986.7	0.99	0.84	-1.79
4,281.0	19.30	337.40	4,133.0	913.5	-445.8	1,016.4	2.21	2.21	-0.32
4,376.0	18.40	334.50	4,223.0	941.5	-458.3	1,047.1	1.37	-0.95	-3.05
4,471.0	20.40	334.10	4,312.6	969.9	-472.0	1,078.6	2.11	2.11	-0.42
4,566.0	19.90	334.10	4,401.7	999.4	-486.3	1,111.3	0.53	-0.53	0.00
4,661.0	18.70	333.00	4,491.4	1,027.5	-500.3	1,142.7	1.32	-1.26	-1.16
4,756.0	16.80	336.80	4,581.9	1,053.7	-512.6	1,171.7	2.34	-2.00	4.00
4,851.0	15.20	336.10	4,673.2	1,077.7	-523.0	1,197.8	1.70	-1.68	-0.74
4,946.0	13.00	334.70	4,765.3	1,098.7	-532.7	1,221.0	2.34	-2.32	-1.47
5,041.0	12.00	331.00	4,858.1	1,117.0	-542.0	1,241.5	1.35	-1.05	-3.89
5,135.0	10.90	327.10	4,950.2	1,133.1	-551.6	1,260.1	1.43	-1.17	-4.15
5,230.0	10.40	328.50	5,043.6	1,147.9	-560.9	1,277.5	0.59	-0.53	1.47
5,325.0	8.50	328.30	5,137.3	1,161.2	-569.1	1,293.0	2.00	-2.00	-0.21
5,420.0	6.70	323.00	5,231.4	1,171.6	-576.1	1,305.4	2.03	-1.89	-5.58
5,515.0	5.10	317.50	5,325.9	1,179.1	-582.3	1,314.9	1.78	-1.68	-5.79
5,610.0	3.80	307.40	5,420.6	1,184.2	-587.7	1,321.7	1.59	-1.37	-10.63
5,705.0	3.20	307.00	5,515.5	1,187.7	-592.3	1,326.9	0.63	-0.63	-0.42
5,800.0	2.90	307.40	5,610.3	1,190.7	-596.3	1,331.3	0.32	-0.32	0.42
5,894.0	2.00	320.80	5,704.2	1,193.4	-599.2	1,335.0	1.13	-0.96	14.26
5,989.0	1.70	331.30	5,799.2	1,196.0	-601.0	1,338.1	0.48	-0.32	11.05
5,991.3	1.70	331.42	5,801.5	1,196.0	-601.0	1,338.1	0.26	-0.22	5.02

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Coors Energy 33-25D
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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Wellbore #1	<b>Database:</b>	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)
<b>TARGET BHL 1984'FSL, 1976'FEL</b>									
6,084.0	1.50	336.70	5,894.2	1,198.3	-602.1	1,340.7	0.26	-0.21	5.70
6,179.0	1.30	328.80	5,989.1	1,200.4	-603.2	1,343.0	0.29	-0.21	-8.32
6,274.0	1.30	329.70	6,084.1	1,202.3	-604.3	1,345.2	0.02	0.00	0.95
6,369.0	1.10	318.80	6,179.1	1,203.9	-605.4	1,347.1	0.32	-0.21	-11.47
6,464.0	1.10	317.40	6,274.1	1,205.2	-606.6	1,348.9	0.03	0.00	-1.47
6,559.0	1.00	328.50	6,369.1	1,206.6	-607.7	1,350.6	0.24	-0.11	11.68
6,654.0	0.80	309.00	6,464.0	1,207.7	-608.6	1,352.0	0.38	-0.21	-20.53
6,690.2	0.68	311.36	6,500.2	1,208.0	-609.0	1,352.4	0.33	-0.32	6.52
<b>LEGAL BOX 400' X 400' 1981'FSL, 1976'FEL</b>									
6,749.0	0.50	317.50	6,559.0	1,208.5	-609.4	1,353.0	0.33	-0.31	10.44
6,844.0	0.30	318.50	6,654.0	1,208.9	-609.9	1,353.6	0.21	-0.21	1.05
6,938.0	0.30	284.30	6,748.0	1,209.2	-610.3	1,354.0	0.19	0.00	-36.38
7,033.0	0.30	287.60	6,843.0	1,209.3	-610.8	1,354.3	0.02	0.00	3.47
7,128.0	0.20	301.50	6,938.0	1,209.5	-611.1	1,354.6	0.12	-0.11	14.63
7,223.0	0.40	244.30	7,033.0	1,209.4	-611.6	1,354.8	0.35	0.21	-60.21
7,318.0	0.40	220.60	7,128.0	1,209.0	-612.1	1,354.6	0.17	0.00	-24.95
7,413.0	0.30	209.00	7,223.0	1,208.6	-612.4	1,354.4	0.13	-0.11	-12.21
7,508.0	0.10	171.40	7,318.0	1,208.3	-612.5	1,354.1	0.24	-0.21	-39.58
7,603.0	0.10	289.90	7,413.0	1,208.2	-612.6	1,354.1	0.18	0.00	124.74
7,698.0	0.10	19.80	7,508.0	1,208.3	-612.7	1,354.2	0.15	0.00	94.63
7,814.0	0.30	150.30	7,624.0	1,208.1	-612.5	1,354.0	0.32	0.17	112.50
7,864.0	0.30	150.30	7,674.0	1,207.9	-612.3	1,353.7	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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