

Well Name: **Coors Energy 14-25D**

Surface Location: Coors Energy 13-25D Pad Sec.25-T3N-R64W  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone

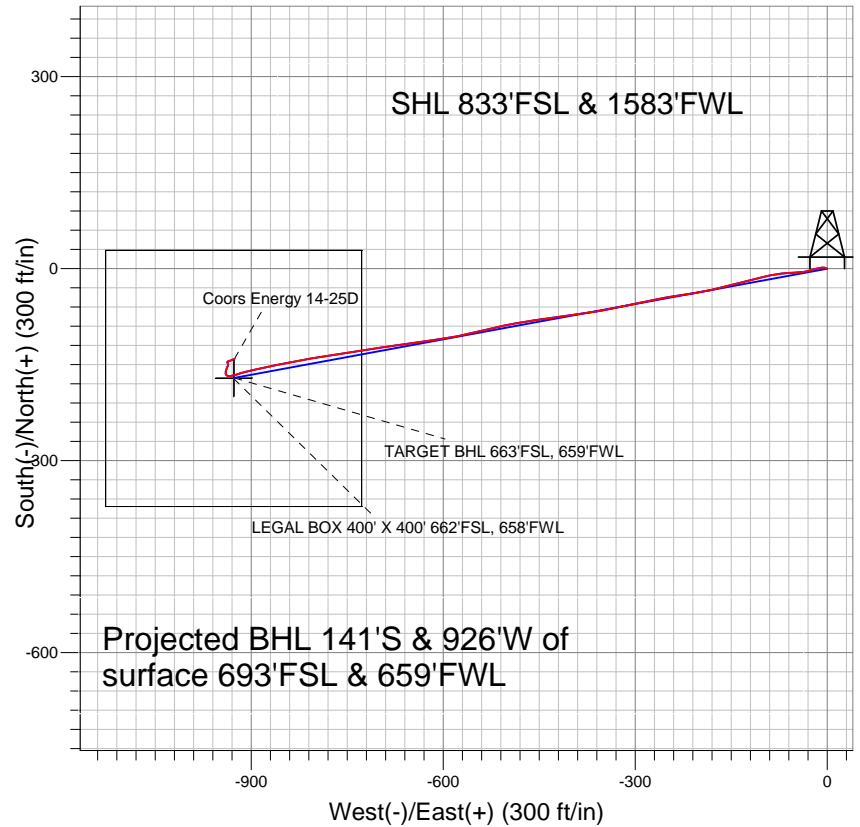
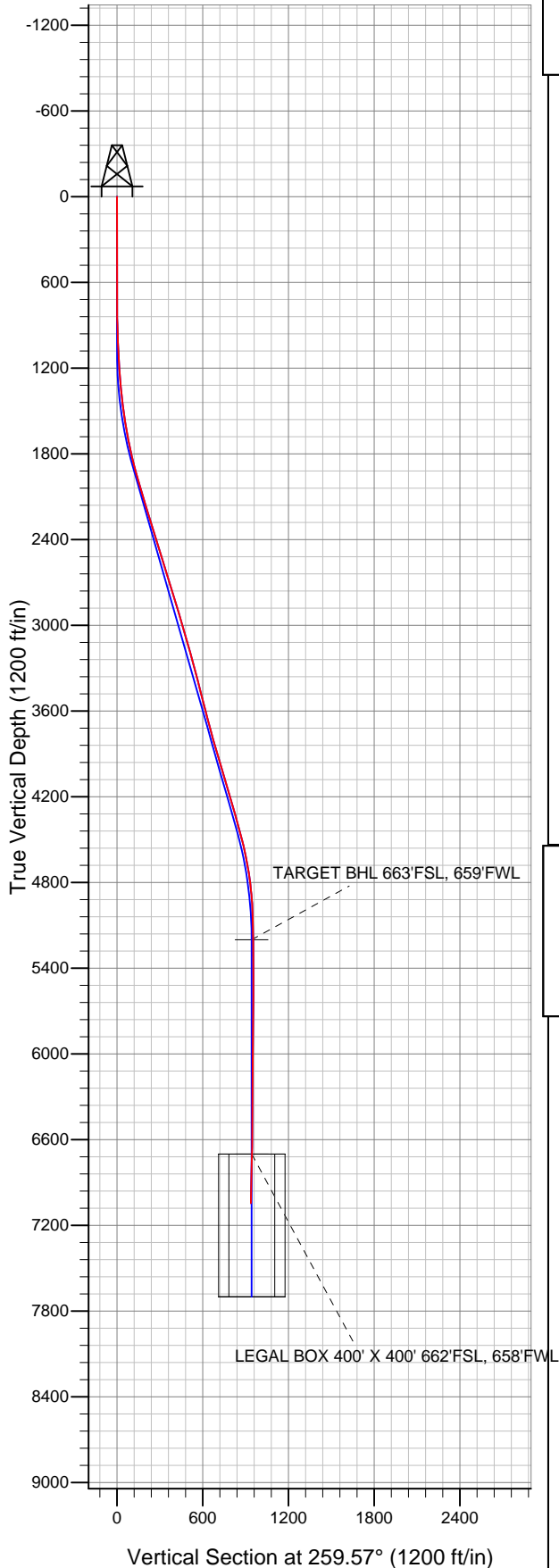
Ground Elevation: 4815.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1314140.99	3278372.42	40° 11' 29.112 N	104° 30' 12.744 W

Original Well Elev WELL @ 4828.0ft (Original Well Elev)

Slot

## PETROLEUM DEVELOPMENT CORP Weld County CO



### LEGEND

- ✕ Coors Energy 14-25D, Wellbore #1, Plan #4 (5-12-11) V0
- Wellbore #1
- Survey #1

## Final Survey Plot

Projected Final Survey -  
7168'MD & 7045'TVD @ 937'VS  
1.1 deg Inc 58.7 deg AZ

Project: SEC.25-T3N-R64W  
Site: Coors Energy 13-25D Pad Sec.25-T3N-R64W  
Well: Coors Energy 14-25D  
Plan: Wellbore #1



## **Directional**

# **PETROLEUM DEVELOPMENT CORP Weld County CO**

**SEC.25-T3N-R64W**

**Coors Energy 13-25D Pad Sec.25-T3N-R64W**

**Coors Energy 14-25D**

**Wellbore #1**

**Survey: Survey #1**

## **Standard Survey Report**

**21 July, 2011**

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Coors Energy 14-25D
<b>Project:</b>	SEC.25-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4828.0ft (Original Well Elev)
<b>Site:</b>	Coors Energy 13-25D Pad Sec.25-T3N-R64W	<b>MD Reference:</b>	WELL @ 4828.0ft (Original Well Elev)
<b>Well:</b>	Coors Energy 14-25D	<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

<b>Site</b>	Coors Energy 13-25D Pad Sec.25-T3N-R64W		
<b>Site Position:</b>		<b>Northing:</b>	1,314,206.56 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,278,371.68 ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40° 11' 29.760 N
		<b>Longitude:</b>	104° 30' 12.744 W
		<b>Grid Convergence:</b>	0.64 °

<b>Well</b>	Coors Energy 14-25D		
<b>Well Position</b>	<b>+N-S</b>	0.0 ft	<b>Northing:</b> 1,314,140.99 ft
	<b>+E-W</b>	0.0 ft	<b>Easting:</b> 3,278,372.42 ft
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40° 11' 29.112 N
		<b>Longitude:</b>	104° 30' 12.744 W
		<b>Ground Level:</b>	4,815.0 ft

<b>Wellbore</b>	Wellbore #1		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>
	IGRF2010	5/12/2011	8.72
			<b>Dip Angle (°)</b>
			66.93
			<b>Field Strength (nT)</b>
			53,060

<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>
	0.0	0.0	0.0
			<b>Direction (°)</b>
			259.57

<b>Survey Program</b>	<b>Date</b> 7/21/2011		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>
800.0	7,168.0	Survey #1 (Wellbore #1)	MWD
			<b>Description</b>
			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
800.0	0.10	251.90	800.0	-0.2	-0.7	0.7	0.01	0.01	0.00
895.0	1.50	307.70	895.0	0.5	-1.7	1.6	1.52	1.47	58.74
990.0	2.70	278.10	989.9	1.6	-4.9	4.6	1.66	1.26	-31.16
1,085.0	3.20	262.40	1,084.8	1.6	-9.8	9.3	1.00	0.53	-16.53
1,180.0	3.50	250.70	1,179.6	0.2	-15.1	14.8	0.78	0.32	-12.32
1,275.0	4.40	255.60	1,274.4	-1.6	-21.4	21.3	1.01	0.95	5.16
1,370.0	6.00	257.80	1,369.0	-3.6	-29.8	29.9	1.70	1.68	2.32
1,464.0	7.00	263.40	1,462.4	-5.3	-40.3	40.6	1.26	1.06	5.96
1,560.0	8.50	267.20	1,557.5	-6.3	-53.2	53.4	1.65	1.56	3.96
1,654.0	10.70	263.80	1,650.2	-7.6	-68.8	69.0	2.42	2.34	-3.62
1,749.0	11.80	259.60	1,743.4	-10.3	-87.1	87.5	1.44	1.16	-4.42

<b>Company:</b>	PETROLEUM DEVELOPMENT CORP Weld County CO	<b>Local Co-ordinate Reference:</b>	Well Coors Energy 14-25D
<b>Project:</b>	SEC.25-T3N-R64W	<b>TVD Reference:</b>	WELL @ 4828.0ft (Original Well Elev)
<b>Site:</b>	Coors Energy 13-25D Pad Sec.25-T3N-R64W	<b>MD Reference:</b>	WELL @ 4828.0ft (Original Well Elev)
<b>Well:</b>	Coors Energy 14-25D	<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)
1,844.0	13.70	255.40	1,836.0	-14.9	-107.6	108.5	2.22	2.00	-4.42
1,939.0	15.10	255.90	1,928.1	-20.7	-130.4	132.0	1.48	1.47	0.53
2,034.0	16.50	255.60	2,019.5	-27.1	-155.5	157.8	1.48	1.47	-0.32
2,129.0	16.50	257.90	2,110.6	-33.3	-181.8	184.8	0.69	0.00	2.42
2,224.0	16.70	260.70	2,201.6	-38.3	-208.4	211.9	0.87	0.21	2.95
2,319.0	18.00	261.30	2,292.3	-42.7	-236.4	240.2	1.38	1.37	0.63
2,414.0	16.90	258.30	2,382.9	-47.7	-264.4	268.7	1.50	-1.16	-3.16
2,509.0	17.10	259.40	2,473.8	-53.1	-291.7	296.5	0.40	0.21	1.16
2,604.0	17.40	257.40	2,564.5	-58.8	-319.3	324.7	0.70	0.32	-2.11
2,698.0	17.00	259.10	2,654.3	-64.5	-346.5	352.4	0.68	-0.43	1.81
2,793.0	17.60	262.20	2,745.0	-69.0	-374.4	380.7	1.16	0.63	3.26
2,888.0	17.20	262.50	2,835.6	-72.8	-402.5	409.1	0.43	-0.42	0.32
2,983.0	16.20	261.20	2,926.6	-76.7	-429.5	436.3	1.12	-1.05	-1.37
3,077.0	15.50	261.90	3,017.0	-80.4	-454.9	462.0	0.77	-0.74	0.74
3,172.0	15.90	261.00	3,108.5	-84.3	-480.4	487.7	0.49	0.42	-0.95
3,267.0	15.60	256.90	3,199.9	-89.2	-505.7	513.4	1.21	-0.32	-4.32
3,362.0	15.70	257.30	3,291.4	-94.9	-530.6	539.0	0.15	0.11	0.42
3,457.0	14.50	256.70	3,383.1	-100.5	-554.7	563.8	1.27	-1.26	-0.63
3,551.0	14.20	258.70	3,474.2	-105.5	-577.5	587.1	0.62	-0.32	2.13
3,646.0	14.40	261.20	3,566.3	-109.5	-600.6	610.5	0.68	0.21	2.63
3,741.0	14.70	263.10	3,658.2	-112.8	-624.2	634.4	0.59	0.32	2.00
3,837.0	15.40	262.10	3,750.9	-116.0	-649.0	659.2	0.78	0.73	-1.04
3,931.0	16.50	260.70	3,841.3	-119.9	-674.5	685.1	1.24	1.17	-1.49
4,025.0	16.70	261.20	3,931.4	-124.1	-701.0	711.9	0.26	0.21	0.53
4,120.0	16.10	262.00	4,022.5	-128.0	-727.6	738.7	0.67	-0.63	0.84
4,216.0	15.80	261.90	4,114.8	-131.7	-753.7	765.1	0.31	-0.31	-0.10
4,310.0	16.30	260.00	4,205.2	-135.8	-779.3	791.0	0.77	0.53	-2.02
4,405.0	16.40	260.00	4,296.3	-140.5	-805.7	817.8	0.11	0.11	0.00
4,500.0	15.70	259.00	4,387.6	-145.2	-831.5	844.1	0.79	-0.74	-1.05
4,595.0	14.70	260.00	4,479.3	-149.8	-856.0	869.0	1.09	-1.05	1.05
4,689.0	12.30	258.20	4,570.7	-153.9	-877.5	890.9	2.59	-2.55	-1.91
4,784.0	10.90	257.40	4,663.7	-157.9	-896.2	910.0	1.48	-1.47	-0.84
4,879.0	8.30	252.40	4,757.4	-162.0	-911.5	925.8	2.87	-2.74	-5.26
4,974.0	5.80	253.60	4,851.7	-165.4	-922.7	937.4	2.64	-2.63	1.26
5,069.0	3.40	258.70	4,946.4	-167.3	-930.0	944.9	2.56	-2.53	5.37
5,164.0	1.30	264.70	5,041.3	-168.0	-933.9	948.8	2.22	-2.21	6.32
5,259.0	1.20	285.50	5,136.3	-167.8	-935.9	950.8	0.49	-0.11	21.89
5,322.5	1.13	294.60	5,199.8	-167.4	-937.1	951.9	0.31	-0.12	14.32
TARGET BHL 663'FSL, 659'FWL									
5,354.0	1.10	299.50	5,231.2	-167.1	-937.6	952.4	0.31	-0.08	15.58
5,449.0	0.90	317.00	5,326.2	-166.1	-938.9	953.5	0.38	-0.21	18.42
5,544.0	1.10	342.70	5,421.2	-164.7	-939.7	954.0	0.51	0.21	27.05
5,638.0	1.10	2.50	5,515.2	-162.9	-940.0	953.9	0.40	0.00	21.06
5,733.0	1.50	9.70	5,610.2	-160.8	-939.7	953.3	0.45	0.42	7.58
5,828.0	1.50	15.30	5,705.1	-158.3	-939.2	952.3	0.15	0.00	5.89
5,923.0	1.30	13.20	5,800.1	-156.1	-938.6	951.3	0.22	-0.21	-2.21
6,018.0	0.60	48.00	5,895.1	-154.7	-938.0	950.5	0.92	-0.74	36.63
6,113.0	0.70	31.10	5,990.1	-153.9	-937.3	949.7	0.23	0.11	-17.79
6,208.0	0.90	26.70	6,085.1	-152.7	-936.7	948.8	0.22	0.21	-4.63
6,303.0	1.10	2.70	6,180.1	-151.1	-936.3	948.2	0.48	0.21	-25.26
6,398.0	1.50	357.00	6,275.0	-149.0	-936.3	947.8	0.44	0.42	-6.00
6,492.0	1.10	321.20	6,369.0	-147.1	-936.9	948.1	0.94	-0.43	-38.09
6,587.0	0.70	23.50	6,464.0	-145.8	-937.3	948.2	1.04	-0.42	65.58

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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)
6,682.0	1.10	69.30	6,559.0	-145.0	-936.2	947.0	0.83	0.42	48.21
6,777.0	1.40	72.70	6,654.0	-144.3	-934.2	944.9	0.33	0.32	3.58
6,822.9	1.45	70.50	6,699.9	-143.9	-933.2	943.8	0.16	0.10	-4.80
<b>LEGAL BOX 400' X 400' 662'FSL, 658'FWL</b>									
6,872.0	1.50	68.30	6,748.9	-143.5	-932.0	942.6	0.16	0.11	-4.48
6,967.0	1.20	67.50	6,843.9	-142.6	-929.9	940.4	0.32	-0.32	-0.84
7,062.0	1.10	68.30	6,938.9	-141.9	-928.1	938.5	0.11	-0.11	0.84
7,168.0	1.10	58.70	7,044.9	-141.0	-926.3	936.5	0.17	0.00	-9.06

Checked By: _____	Approved By: _____	Date: _____
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