

# Gunnison Energy Corp.

Delta County, CO (NAD27)

Sec. 23-T12S-R94W

SPU Cockroft 1294 23-41DH1R

Plan D Rev 0

Plan: Plan D Rev 0 Proposal

## Sperry Drilling Services

### Proposal Report

12 November, 2012

Well Coordinates: 433,343.57 N, 1,329,864.79 E (38° 59' 57.62" N, 107° 51' 29.68" W)

Ground Level: 8,536.00 ft

Local Coordinate Origin:	Centered on Well SPU Cockroft 1294 23-41DH1R
Viewing Datum:	KB-24' @ 8560.00ft (H&P 273)
TVDs to System:	N
North Reference:	True
Unit System:	API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

**HALLIBURTON**

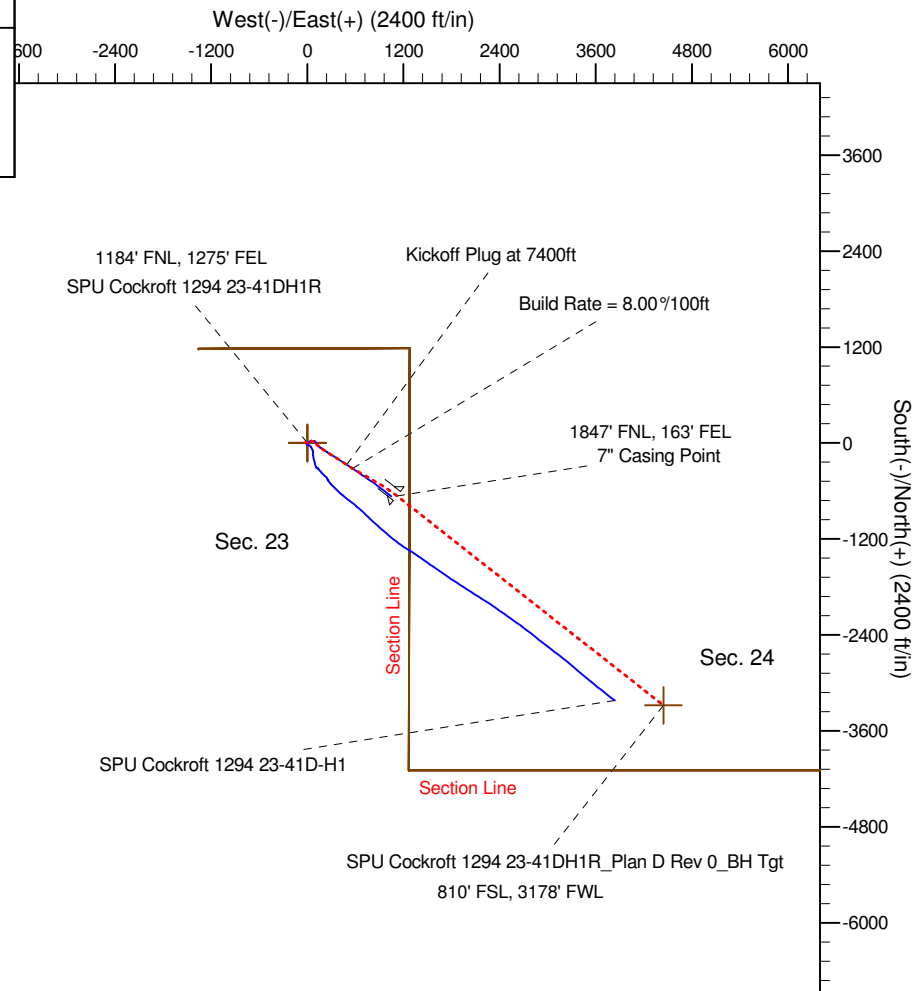
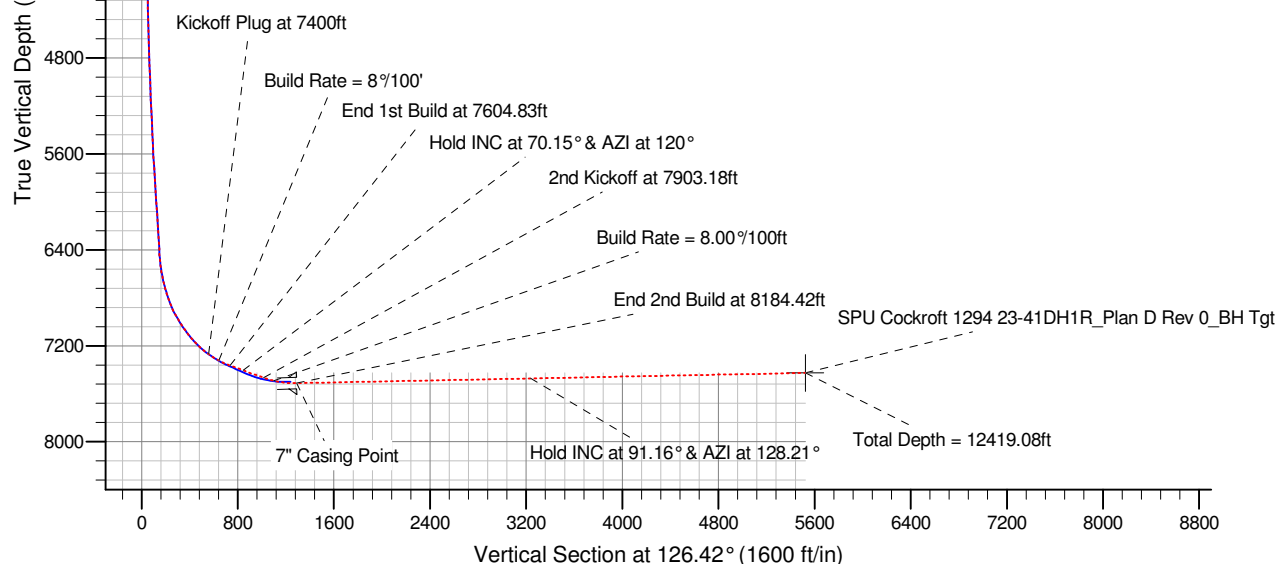
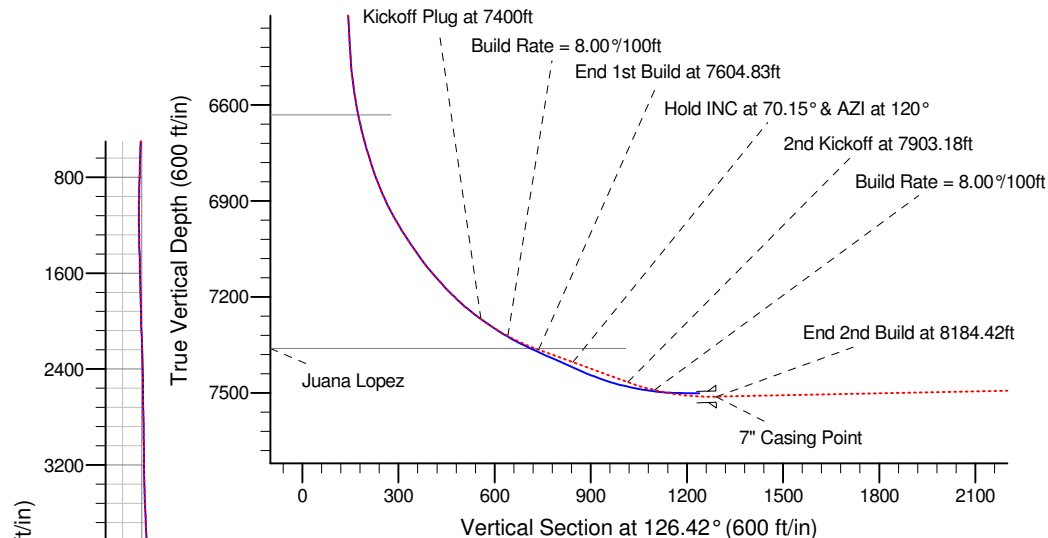
Project: Delta County, CO (NAD27)  
 Site: Sec. 23-T12S-R94W  
 Well: SPU Cockroft 1294 23-41DH1R  
 Wellbore: Plan D Rev 0  
 Design: Plan D Rev 0 Proposal

# Gunnison Energy Corp.

**HALLIBURTON**  
 Sperry Drilling

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7400.00	54.00	123.17	7269.31	-270.75	492.39	0.00	0.00	556.96	
2	7604.83	70.15	120.00	7364.93	-364.90	646.22	8.00	-10.64	736.64	
3	7840.62	70.15	120.00	7445.00	-475.79	838.29	0.00	0.00	957.03	
4	7903.18	70.15	120.00	7466.24	-505.21	889.24	0.00	0.00	1015.50	
5	8184.42	91.16	128.21	7511.73	-660.29	1117.20	8.00	21.90	1291.01	
6	12419.08	91.16	128.21	7426.00	-3278.96	4444.00	0.00	0.00	5522.74	SPU Cockroft 1294 23-41DH1R_BH Tgt



## WELL DETAILS: SPU Cockroft 1294 23-41DH1R

North	Ground Level:	8536.00	Longitude
Easting		Latitude	
433343.57	1329864.79	38° 59' 57.620 N	107° 51' 29.678 W

Plan: Plan D Rev 0 Proposal (SPU Cockroft 1294 23-41DH1R)

Created By: Isaiah Rodolph Date: 11/13/2012

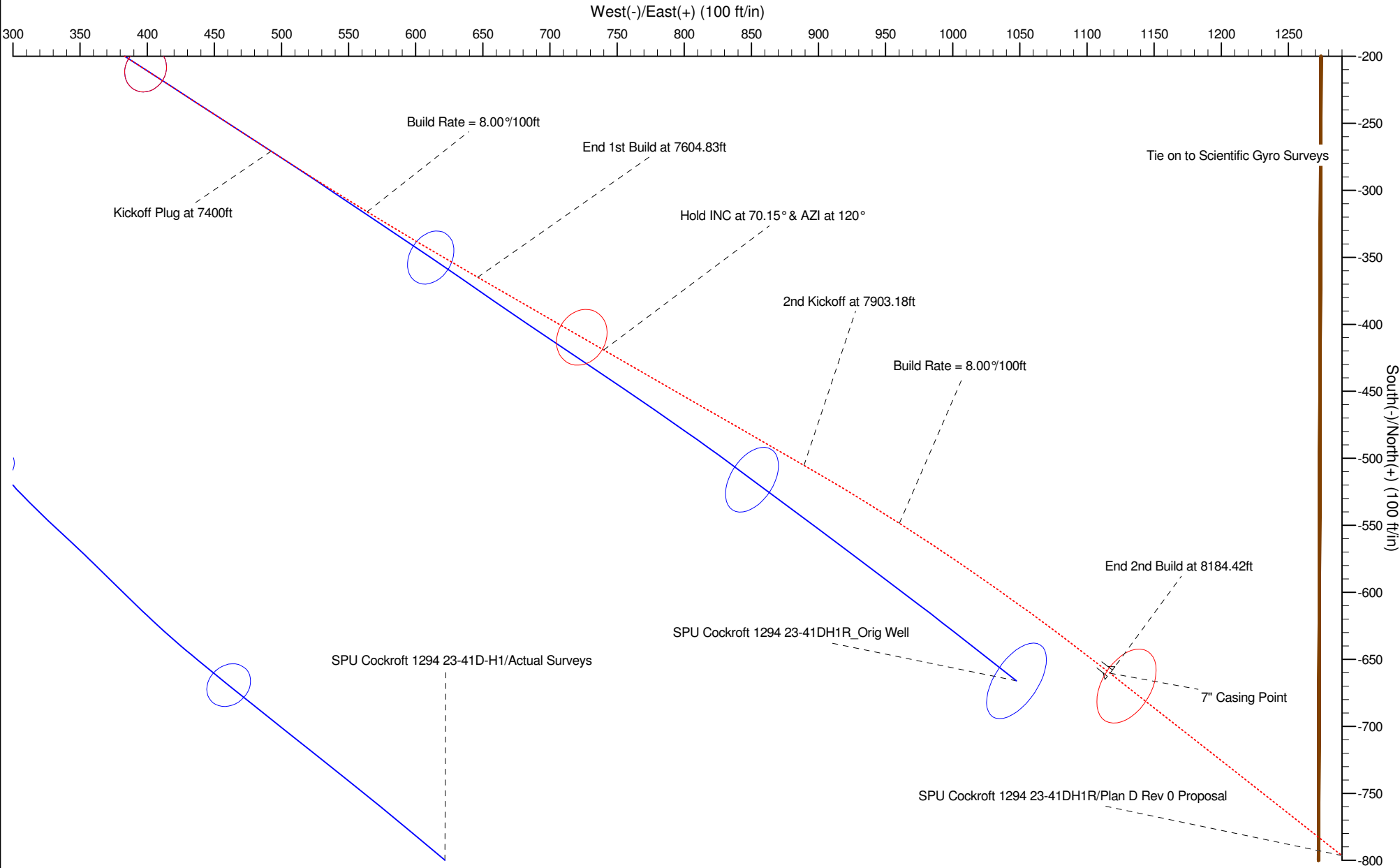
Checked: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

Project: Delta County, CO (NAD27)  
Site: Sec. 23-T12S-R94W  
SPU Cockroft 1294 23-41DH1R  
Plan D Rev 0  
Plan D Rev 0 Proposal

# Gunnison Energy Corp.



**Plan Report for SPU Cockroft 1294 23-41DH1R - Plan D Rev 0 Proposal**

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)	Toolface Azimuth (°)
7,400.00	54.00	123.17	7,269.31	-270.75	492.39	556.96	0.00	0.00	0.00	0.00
<b>Kickoff Plug at 7400ft</b>										
7,500.00	61.88	121.50	7,322.35	-316.00	563.96	641.42	8.00	7.87	-1.67	-10.64
<b>Build Rate = 8.00°/100ft</b>										
7,593.49	69.25	120.15	7,361.00	-359.56	637.01	726.07	8.00	7.89	-1.44	-9.75
<b>Juana Lopez</b>										
7,600.00	69.77	120.07	7,363.28	-362.62	642.29	732.13	8.00	7.90	-1.36	-9.19
7,604.83	70.15	120.00	7,364.93	-364.90	646.22	736.64	8.00	7.90	-1.35	-9.16
<b>End 1st Build at 7604.83ft</b>										
7,700.00	70.15	120.00	7,397.25	-409.65	723.74	825.59	0.00	0.00	0.00	0.00
7,720.00	70.15	120.00	7,404.04	-419.06	740.03	844.29	0.00	0.00	0.00	0.00
<b>Hold INC at 70.15° &amp; AZI at 120°</b>										
7,800.00	70.15	120.00	7,431.21	-456.68	805.20	919.06	0.00	0.00	0.00	0.00
7,840.62	70.15	120.00	7,445.00	-475.79	838.29	957.03	0.00	0.00	0.00	0.00
7,900.00	70.15	120.00	7,465.16	-503.71	886.65	1,012.53	0.00	0.00	0.00	0.00
7,903.18	70.15	120.00	7,466.24	-505.21	889.24	1,015.50	0.00	0.00	0.00	0.00
<b>2nd Kickoff at 7903.18ft</b>										
7,990.00	76.61	122.66	7,491.06	-548.46	960.25	1,098.32	8.00	7.44	3.06	21.90
<b>Build Rate = 8.00°/100ft</b>										
8,000.00	77.36	122.95	7,493.31	-553.74	968.44	1,108.04	8.00	7.46	2.96	21.14
8,100.00	84.84	125.83	7,508.78	-609.52	1,049.88	1,206.69	8.00	7.48	2.88	21.07
8,184.42	91.16	128.21	7,511.73	-660.30	1,117.20	1,291.01	8.00	7.49	2.81	20.63
<b>End 2nd Build at 8184.42ft - 7" Casing Point</b>										
8,200.00	91.16	128.21	7,511.41	-669.93	1,129.44	1,306.58	0.00	0.00	0.00	0.00
8,300.00	91.16	128.21	7,509.39	-731.77	1,208.00	1,406.51	0.00	0.00	0.00	0.00
8,400.00	91.16	128.21	7,507.36	-793.61	1,286.56	1,506.44	0.00	0.00	0.00	0.00
8,500.00	91.16	128.21	7,505.34	-855.45	1,365.12	1,606.37	0.00	0.00	0.00	0.00
8,600.00	91.16	128.21	7,503.32	-917.29	1,443.68	1,706.30	0.00	0.00	0.00	0.00
8,700.00	91.16	128.21	7,501.29	-979.12	1,522.24	1,806.23	0.00	0.00	0.00	0.00
8,800.00	91.16	128.21	7,499.27	-1,040.96	1,600.81	1,906.16	0.00	0.00	0.00	0.00
8,900.00	91.16	128.21	7,497.24	-1,102.80	1,679.37	2,006.10	0.00	0.00	0.00	0.00
9,000.00	91.16	128.21	7,495.22	-1,164.64	1,757.93	2,106.03	0.00	0.00	0.00	0.00
9,100.00	91.16	128.21	7,493.19	-1,226.48	1,836.49	2,205.96	0.00	0.00	0.00	0.00
9,200.00	91.16	128.21	7,491.17	-1,288.32	1,915.05	2,305.89	0.00	0.00	0.00	0.00
9,300.00	91.16	128.21	7,489.14	-1,350.16	1,993.61	2,405.82	0.00	0.00	0.00	0.00
9,400.00	91.16	128.21	7,487.12	-1,412.00	2,072.17	2,505.75	0.00	0.00	0.00	0.00
9,500.00	91.16	128.21	7,485.10	-1,473.83	2,150.73	2,605.68	0.00	0.00	0.00	0.00
9,600.00	91.16	128.21	7,483.07	-1,535.67	2,229.30	2,705.61	0.00	0.00	0.00	0.00
9,700.00	91.16	128.21	7,481.05	-1,597.51	2,307.86	2,805.54	0.00	0.00	0.00	0.00
9,800.00	91.16	128.21	7,479.02	-1,659.35	2,386.42	2,905.47	0.00	0.00	0.00	0.00
9,900.00	91.16	128.21	7,477.00	-1,721.19	2,464.98	3,005.40	0.00	0.00	0.00	0.00
10,000.00	91.16	128.21	7,474.97	-1,783.03	2,543.54	3,105.34	0.00	0.00	0.00	0.00
10,100.00	91.16	128.21	7,472.95	-1,844.87	2,622.10	3,205.27	0.00	0.00	0.00	0.00
10,130.00	91.16	128.21	7,472.34	-1,863.42	2,645.67	3,235.25	0.00	0.00	0.00	0.00
<b>Hold INC at 91.16° &amp; AZI at 128.21°</b>										
10,200.00	91.16	128.21	7,470.92	-1,906.71	2,700.66	3,305.20	0.00	0.00	0.00	0.00
10,300.00	91.16	128.21	7,468.90	-1,968.54	2,779.22	3,405.13	0.00	0.00	0.00	0.00
10,400.00	91.16	128.21	7,466.88	-2,030.38	2,857.79	3,505.06	0.00	0.00	0.00	0.00
10,500.00	91.16	128.21	7,464.85	-2,092.22	2,936.35	3,604.99	0.00	0.00	0.00	0.00
10,600.00	91.16	128.21	7,462.83	-2,154.06	3,014.91	3,704.92	0.00	0.00	0.00	0.00
10,700.00	91.16	128.21	7,460.80	-2,215.90	3,093.47	3,804.85	0.00	0.00	0.00	0.00
10,800.00	91.16	128.21	7,458.78	-2,277.74	3,172.03	3,904.78	0.00	0.00	0.00	0.00
10,900.00	91.16	128.21	7,456.75	-2,339.58	3,250.59	4,004.71	0.00	0.00	0.00	0.00
11,000.00	91.16	128.21	7,454.73	-2,401.42	3,329.15	4,104.64	0.00	0.00	0.00	0.00
11,100.00	91.16	128.21	7,452.70	-2,463.25	3,407.71	4,204.58	0.00	0.00	0.00	0.00
11,200.00	91.16	128.21	7,450.68	-2,525.09	3,486.28	4,304.51	0.00	0.00	0.00	0.00
11,300.00	91.16	128.21	7,448.66	-2,586.93	3,564.84	4,404.44	0.00	0.00	0.00	0.00
11,400.00	91.16	128.21	7,446.63	-2,648.77	3,643.40	4,504.37	0.00	0.00	0.00	0.00

## Plan Report for SPU Cockroft 1294 23-41DH1R - Plan D Rev 0 Proposal

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)	Toolface Azimuth (°)
11,500.00	91.16	128.21	7,444.61	-2,710.61	3,721.96	4,604.30	0.00	0.00	0.00	0.00
11,600.00	91.16	128.21	7,442.58	-2,772.45	3,800.52	4,704.23	0.00	0.00	0.00	0.00
11,700.00	91.16	128.21	7,440.56	-2,834.29	3,879.08	4,804.16	0.00	0.00	0.00	0.00
11,800.00	91.16	128.21	7,438.53	-2,896.13	3,957.64	4,904.09	0.00	0.00	0.00	0.00
11,900.00	91.16	128.21	7,436.51	-2,957.96	4,036.20	5,004.02	0.00	0.00	0.00	0.00
12,000.00	91.16	128.21	7,434.48	-3,019.80	4,114.77	5,103.95	0.00	0.00	0.00	0.00
12,100.00	91.16	128.21	7,432.46	-3,081.64	4,193.33	5,203.88	0.00	0.00	0.00	0.00
12,200.00	91.16	128.21	7,430.44	-3,143.48	4,271.89	5,303.82	0.00	0.00	0.00	0.00
12,300.00	91.16	128.21	7,428.41	-3,205.32	4,350.45	5,403.75	0.00	0.00	0.00	0.00
12,400.00	91.16	128.21	7,426.39	-3,267.16	4,429.01	5,503.68	0.00	0.00	0.00	0.00
12,419.08	91.16	128.21	7,426.00	-3,278.96	4,444.00	5,522.74	0.00	0.00	0.00	0.00

SPU Cockroft 1294 23-41DH1R\_Plan D Rev 0\_BH Tgt

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,400.00	7,269.31	-270.75	492.39	Kickoff Plug at 7400ft
7,500.00	7,322.35	-316.00	563.96	Build Rate = 8.00°/100ft
7,604.83	7,364.93	-364.90	646.22	End 1st Build at 7604.83ft
7,720.00	7,404.04	-419.06	740.03	Hold INC at 70.15° & AZI at 120°
7,903.18	7,466.24	-505.21	889.24	2nd Kickoff at 7903.18ft
7,990.00	7,491.06	-548.46	960.25	Build Rate = 8.00°/100ft
8,184.42	7,511.73	-660.30	1,117.20	End 2nd Build at 8184.42ft
10,130.00	7,472.34	-1,863.42	2,645.67	Hold INC at 91.16° & AZI at 128.21°
12,419.08	7,426.00	-3,278.96	4,444.00	Total Depth = 12419.08ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
Target	SPU Cockroft 1294 23-41DH1R_Plan D Rev 0_BH Tgt	126.42	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
266.00	7,400.00	Sperry MWD Surveys	MWD
7,400.00	12,419.08	Plan D Rev 0 Proposal	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,184.42	7,511.73	7" Casing Point	7	8-3/4

## Plan Report for SPU Cockroft 1294 23-41DH1R - Plan D Rev 0 Proposal

### Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	7,767.00	Dakota			
898.33	898.00	Williams Fork			
3,150.68	3,149.00	Cameo B Coal			
3,277.71	3,276.00	Rollins SS			
3,741.98	3,740.00	Cozzette SS			
3,934.17	3,932.00	Corcoran SS			
5,226.13	5,223.00	Hot Gamma Marker			
6,638.11	6,631.00	Niobrara			
7,593.49	7,361.00	Juana Lopez			

### Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
SPU Cockroft 1294 23-41DH1R_Plan D Rev 0_BH Tgt	7,426.00	-3,278.96	4,444.00	Point
SPU Cockroft 1294 23-41DH1R_East Section Line	12.00	0.04	0.00	Polygon
SPU Cockroft 1294 23-41DH1R_North Section Line	12.00	0.04	0.00	Polygon
SPU Cockroft 1294 23-41DH1R_South Section Line	12.00	0.04	0.00	Polygon

**North Reference Sheet for Sec. 23-T12S-R94W - SPU Cockroft 1294 23-41DH1R -  
Plan D Rev 0**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to KB-24' @ 8560.00ft (DHS 20). Northing and Easting are relative to SPU Cockroft 1294 23-41DH1R

Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:39° 45' 0.000 N°

False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99993748

Grid Coordinates of Well: 433,343.57 ft N, 1,329,864.79 ft E

Geographical Coordinates of Well: 38° 59' 57.62" N, 107° 51' 29.68" W

Grid Convergence at Surface is: -1.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,419.08ft  
the Bottom Hole Displacement is 5,522.74ft in the Direction of 126.42° (True).

Magnetic Convergence at surface is: -11.55° (13 November 2012, , BGGM2012)

