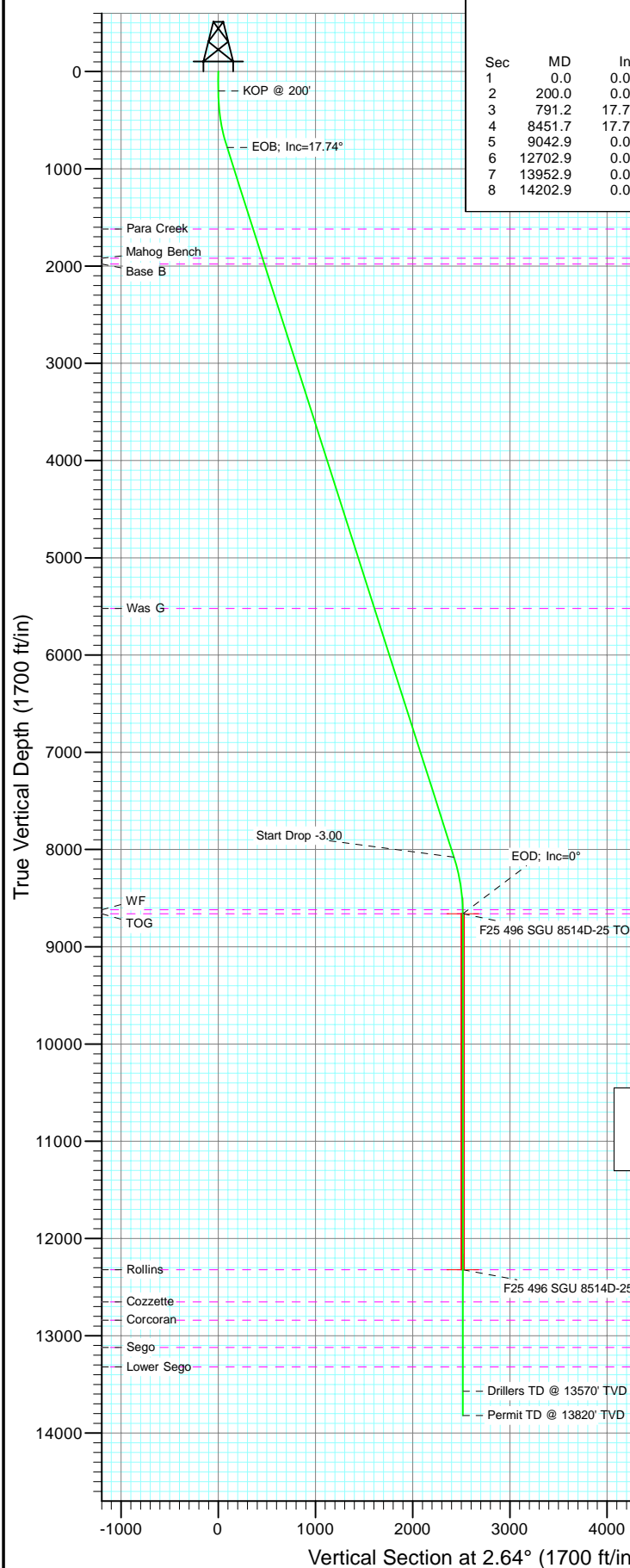
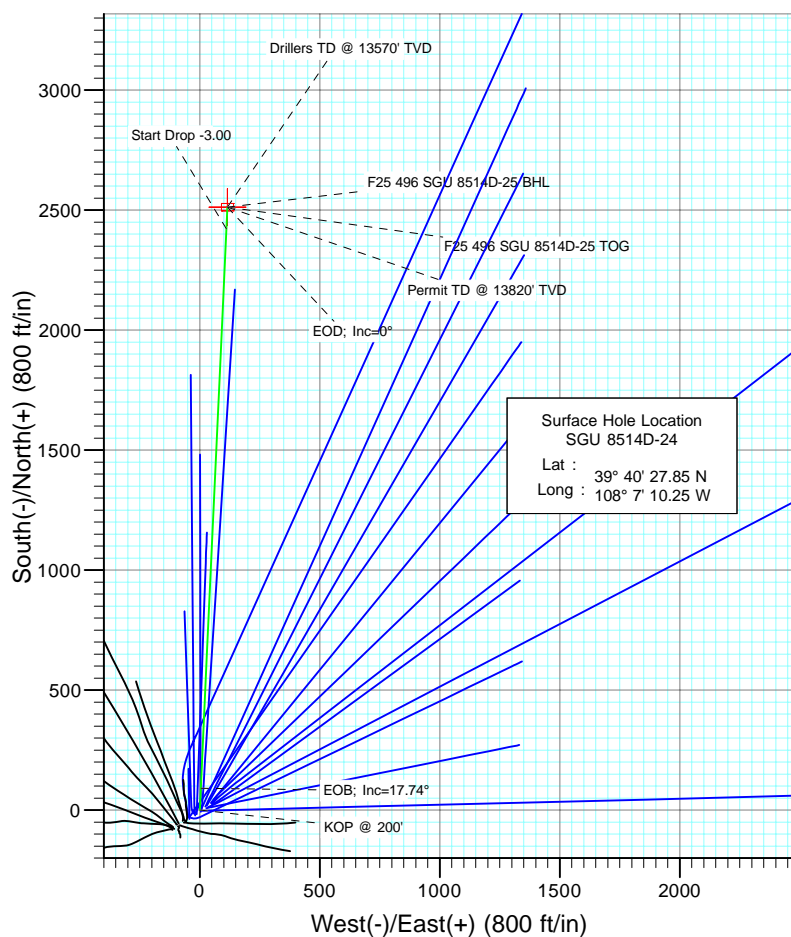




Project: Story Gulch
Site: F25 496
Well: SGU 8514D-24
Wellbore: DD
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	791.2	17.74	2.64	781.8	90.7	4.2	3.00	2.64	90.8	
4	8451.7	17.74	2.64	8078.2	2421.8	111.5	0.00	0.00	2424.3	
5	9042.9	0.00	0.00	8660.0	2512.4	115.7	3.00	180.00	2515.1	F25 496 SGU 8514D-25 TOG
6	12702.9	0.00	0.00	12320.0	2512.4	115.7	0.00	0.00	2515.1	F25 496 SGU 8514D-25 BHL
7	13952.9	0.00	0.00	13570.0	2512.4	115.7	0.00	0.00	2515.1	
8	14202.9	0.00	0.00	13820.0	2512.4	115.7	0.00	0.00	2515.1	



Bottom Hole Location
SGU 8514D-24
Lat : 39° 40' 52.68 N
Long. : 108° 7' 8.77 W



Azimuths to True North
Magnetic North: 10.55°

Magnetic Field
Strength: 52453.6snT
Dip Angle: 65.90°
Date: 5/6/2010
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1620.0	1671.2	Para Creek
1920.0	1986.2	Mahog Bench
1980.0	2049.2	Base B
5520.0	5765.8	Was G
8620.0	9002.9	WF TOG
8660.0	9042.9	TOG
12320.0	12702.9	Rollins
12650.0	13032.9	Cozzette
12840.0	13222.9	Corcoran
13120.0	13502.9	Sego
13320.0	13702.9	Lower Sego

DESIGN DETAILS: Plan #1
105XXX; BH
KBE @ 8320.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
F25 496 SGU 8514D-25 BHL	64	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well SGU 8514D-24
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8320.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8320.0ft (Original Well Elev)
Site:	F25 496	North Reference:	True
Well:	SGU 8514D-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Story Gulch		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	F25 496				
Site Position:		Northing:	1,681,091.06 ft	Latitude:	39° 40' 27.10 N
From:	Lat/Long	Easting:	2,262,632.54 ft	Longitude:	108° 7' 11.76 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	SGU 8514D-24					
Well Position	+N/-S	0.0 ft	Northing:	1,681,163.25 ft	Latitude:	39° 40' 27.85 N
	+E/-W	0.0 ft	Easting:	2,262,752.45 ft	Longitude:	108° 7' 10.25 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,298.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/6/2010	10.55	65.90	52,454

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	2.64

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
791.2	17.74	2.64	781.8	90.7	4.2	3.00	3.00	0.00	2.64	
8,451.7	17.74	2.64	8,078.2	2,421.8	111.5	0.00	0.00	0.00	0.00	
9,042.9	0.00	0.00	8,660.0	2,512.4	115.7	3.00	-3.00	0.00	180.00	F25 496 SGU 8514D-
12,702.9	0.00	0.00	12,320.0	2,512.4	115.7	0.00	0.00	0.00	0.00	F25 496 SGU 8514D-
13,952.9	0.00	0.00	13,570.0	2,512.4	115.7	0.00	0.00	0.00	0.00	
14,202.9	0.00	0.00	13,820.0	2,512.4	115.7	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well SGU 8514D-24
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8320.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8320.0ft (Original Well Elev)
Site:	F25 496	North Reference:	True
Well:	SGU 8514D-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
300.0	3.00	2.64	300.0	2.6	0.1	2.6	3.00	3.00	
400.0	6.00	2.64	399.6	10.5	0.5	10.5	3.00	3.00	
500.0	9.00	2.64	498.8	23.5	1.1	23.5	3.00	3.00	
600.0	12.00	2.64	597.1	41.7	1.9	41.7	3.00	3.00	
700.0	15.00	2.64	694.3	65.0	3.0	65.1	3.00	3.00	
791.2	17.74	2.64	781.8	90.7	4.2	90.8	3.00	3.00	EOB; Inc=17.74°
800.0	17.74	2.64	790.2	93.4	4.3	93.5	0.00	0.00	
900.0	17.74	2.64	885.4	123.8	5.7	123.9	0.00	0.00	
1,000.0	17.74	2.64	980.7	154.2	7.1	154.4	0.00	0.00	
1,100.0	17.74	2.64	1,075.9	184.6	8.5	184.8	0.00	0.00	
1,200.0	17.74	2.64	1,171.2	215.1	9.9	215.3	0.00	0.00	
1,300.0	17.74	2.64	1,266.4	245.5	11.3	245.8	0.00	0.00	
1,400.0	17.74	2.64	1,361.7	275.9	12.7	276.2	0.00	0.00	
1,500.0	17.74	2.64	1,456.9	306.4	14.1	306.7	0.00	0.00	
1,600.0	17.74	2.64	1,552.2	336.8	15.5	337.2	0.00	0.00	
1,671.2	17.74	2.64	1,620.0	358.5	16.5	358.8	0.00	0.00	Para Creek
1,700.0	17.74	2.64	1,647.4	367.2	16.9	367.6	0.00	0.00	
1,800.0	17.74	2.64	1,742.7	397.7	18.3	398.1	0.00	0.00	
1,900.0	17.74	2.64	1,837.9	428.1	19.7	428.5	0.00	0.00	
1,986.2	17.74	2.64	1,920.0	454.3	20.9	454.8	0.00	0.00	Mahog Bench
2,000.0	17.74	2.64	1,933.2	458.5	21.1	459.0	0.00	0.00	
2,049.2	17.74	2.64	1,980.0	473.5	21.8	474.0	0.00	0.00	Base B
2,100.0	17.74	2.64	2,028.4	488.9	22.5	489.5	0.00	0.00	
2,200.0	17.74	2.64	2,123.6	519.4	23.9	519.9	0.00	0.00	
2,300.0	17.74	2.64	2,218.9	549.8	25.3	550.4	0.00	0.00	
2,400.0	17.74	2.64	2,314.1	580.2	26.7	580.9	0.00	0.00	
2,500.0	17.74	2.64	2,409.4	610.7	28.1	611.3	0.00	0.00	
2,600.0	17.74	2.64	2,504.6	641.1	29.5	641.8	0.00	0.00	
2,700.0	17.74	2.64	2,599.9	671.5	30.9	672.2	0.00	0.00	
2,800.0	17.74	2.64	2,695.1	702.0	32.3	702.7	0.00	0.00	
2,900.0	17.74	2.64	2,790.4	732.4	33.7	733.2	0.00	0.00	
3,000.0	17.74	2.64	2,885.6	762.8	35.1	763.6	0.00	0.00	
3,100.0	17.74	2.64	2,980.9	793.2	36.5	794.1	0.00	0.00	
3,200.0	17.74	2.64	3,076.1	823.7	37.9	824.5	0.00	0.00	
3,300.0	17.74	2.64	3,171.4	854.1	39.3	855.0	0.00	0.00	
3,400.0	17.74	2.64	3,266.6	884.5	40.7	885.5	0.00	0.00	
3,500.0	17.74	2.64	3,361.9	915.0	42.1	915.9	0.00	0.00	
3,600.0	17.74	2.64	3,457.1	945.4	43.5	946.4	0.00	0.00	
3,700.0	17.74	2.64	3,552.4	975.8	44.9	976.9	0.00	0.00	
3,800.0	17.74	2.64	3,647.6	1,006.3	46.3	1,007.3	0.00	0.00	
3,900.0	17.74	2.64	3,742.9	1,036.7	47.7	1,037.8	0.00	0.00	
4,000.0	17.74	2.64	3,838.1	1,067.1	49.1	1,068.2	0.00	0.00	
4,100.0	17.74	2.64	3,933.3	1,097.5	50.5	1,098.7	0.00	0.00	
4,200.0	17.74	2.64	4,028.6	1,128.0	51.9	1,129.2	0.00	0.00	
4,300.0	17.74	2.64	4,123.8	1,158.4	53.3	1,159.6	0.00	0.00	
4,400.0	17.74	2.64	4,219.1	1,188.8	54.7	1,190.1	0.00	0.00	
4,500.0	17.74	2.64	4,314.3	1,219.3	56.1	1,220.6	0.00	0.00	
4,600.0	17.74	2.64	4,409.6	1,249.7	57.5	1,251.0	0.00	0.00	
4,700.0	17.74	2.64	4,504.8	1,280.1	58.9	1,281.5	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well SGU 8514D-24
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8320.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8320.0ft (Original Well Elev)
Site:	F25 496	North Reference:	True
Well:	SGU 8514D-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	17.74	2.64	4,600.1	1,310.6	60.3	1,311.9	0.00	0.00	
4,900.0	17.74	2.64	4,695.3	1,341.0	61.7	1,342.4	0.00	0.00	
5,000.0	17.74	2.64	4,790.6	1,371.4	63.1	1,372.9	0.00	0.00	
5,100.0	17.74	2.64	4,885.8	1,401.8	64.5	1,403.3	0.00	0.00	
5,200.0	17.74	2.64	4,981.1	1,432.3	65.9	1,433.8	0.00	0.00	
5,300.0	17.74	2.64	5,076.3	1,462.7	67.3	1,464.3	0.00	0.00	
5,400.0	17.74	2.64	5,171.6	1,493.1	68.7	1,494.7	0.00	0.00	
5,500.0	17.74	2.64	5,266.8	1,523.6	70.1	1,525.2	0.00	0.00	
5,600.0	17.74	2.64	5,362.1	1,554.0	71.5	1,555.6	0.00	0.00	
5,700.0	17.74	2.64	5,457.3	1,584.4	72.9	1,586.1	0.00	0.00	
5,765.8	17.74	2.64	5,520.0	1,604.5	73.9	1,606.2	0.00	0.00	Was G
5,800.0	17.74	2.64	5,552.6	1,614.9	74.3	1,616.6	0.00	0.00	
5,900.0	17.74	2.64	5,647.8	1,645.3	75.7	1,647.0	0.00	0.00	
6,000.0	17.74	2.64	5,743.0	1,675.7	77.1	1,677.5	0.00	0.00	
6,100.0	17.74	2.64	5,838.3	1,706.1	78.5	1,707.9	0.00	0.00	
6,200.0	17.74	2.64	5,933.5	1,736.6	80.0	1,738.4	0.00	0.00	
6,300.0	17.74	2.64	6,028.8	1,767.0	81.4	1,768.9	0.00	0.00	
6,400.0	17.74	2.64	6,124.0	1,797.4	82.8	1,799.3	0.00	0.00	
6,500.0	17.74	2.64	6,219.3	1,827.9	84.2	1,829.8	0.00	0.00	
6,600.0	17.74	2.64	6,314.5	1,858.3	85.6	1,860.3	0.00	0.00	
6,700.0	17.74	2.64	6,409.8	1,888.7	87.0	1,890.7	0.00	0.00	
6,800.0	17.74	2.64	6,505.0	1,919.2	88.4	1,921.2	0.00	0.00	
6,900.0	17.74	2.64	6,600.3	1,949.6	89.8	1,951.6	0.00	0.00	
7,000.0	17.74	2.64	6,695.5	1,980.0	91.2	1,982.1	0.00	0.00	
7,100.0	17.74	2.64	6,790.8	2,010.4	92.6	2,012.6	0.00	0.00	
7,200.0	17.74	2.64	6,886.0	2,040.9	94.0	2,043.0	0.00	0.00	
7,300.0	17.74	2.64	6,981.3	2,071.3	95.4	2,073.5	0.00	0.00	
7,400.0	17.74	2.64	7,076.5	2,101.7	96.8	2,104.0	0.00	0.00	
7,500.0	17.74	2.64	7,171.8	2,132.2	98.2	2,134.4	0.00	0.00	
7,600.0	17.74	2.64	7,267.0	2,162.6	99.6	2,164.9	0.00	0.00	
7,700.0	17.74	2.64	7,362.3	2,193.0	101.0	2,195.3	0.00	0.00	
7,800.0	17.74	2.64	7,457.5	2,223.5	102.4	2,225.8	0.00	0.00	
7,900.0	17.74	2.64	7,552.7	2,253.9	103.8	2,256.3	0.00	0.00	
8,000.0	17.74	2.64	7,648.0	2,284.3	105.2	2,286.7	0.00	0.00	
8,100.0	17.74	2.64	7,743.2	2,314.7	106.6	2,317.2	0.00	0.00	
8,200.0	17.74	2.64	7,838.5	2,345.2	108.0	2,347.7	0.00	0.00	
8,300.0	17.74	2.64	7,933.7	2,375.6	109.4	2,378.1	0.00	0.00	
8,400.0	17.74	2.64	8,029.0	2,406.0	110.8	2,408.6	0.00	0.00	
8,451.7	17.74	2.64	8,078.2	2,421.8	111.5	2,424.3	0.00	0.00	Start Drop -3.00
8,500.0	16.29	2.64	8,124.4	2,435.9	112.1	2,438.5	3.00	-3.00	
8,600.0	13.29	2.64	8,221.1	2,461.4	113.3	2,464.0	3.00	-3.00	
8,700.0	10.29	2.64	8,319.0	2,481.8	114.3	2,484.4	3.00	-3.00	
8,800.0	7.29	2.64	8,417.8	2,497.0	115.0	2,499.7	3.00	-3.00	
8,900.0	4.29	2.64	8,517.3	2,507.1	115.4	2,509.8	3.00	-3.00	
9,000.0	1.29	2.64	8,617.1	2,512.0	115.6	2,514.6	3.00	-3.00	
9,002.9	1.20	2.64	8,620.0	2,512.0	115.7	2,514.7	3.00	-3.00	WF
9,042.9	0.00	0.00	8,660.0	2,512.4	115.7	2,515.1	3.00	-3.00	EOD; Inc=0° - TOG - F25 496 SGU 8514D-25 1
9,100.0	0.00	0.00	8,717.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,200.0	0.00	0.00	8,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,300.0	0.00	0.00	8,917.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,400.0	0.00	0.00	9,017.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,500.0	0.00	0.00	9,117.1	2,512.4	115.7	2,515.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well SGU 8514D-24
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8320.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8320.0ft (Original Well Elev)
Site:	F25 496	North Reference:	True
Well:	SGU 8514D-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,600.0	0.00	0.00	9,217.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,700.0	0.00	0.00	9,317.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,800.0	0.00	0.00	9,417.1	2,512.4	115.7	2,515.1	0.00	0.00	
9,900.0	0.00	0.00	9,517.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,000.0	0.00	0.00	9,617.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,100.0	0.00	0.00	9,717.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,200.0	0.00	0.00	9,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,300.0	0.00	0.00	9,917.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,400.0	0.00	0.00	10,017.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,500.0	0.00	0.00	10,117.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,600.0	0.00	0.00	10,217.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,700.0	0.00	0.00	10,317.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,800.0	0.00	0.00	10,417.1	2,512.4	115.7	2,515.1	0.00	0.00	
10,900.0	0.00	0.00	10,517.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,000.0	0.00	0.00	10,617.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,100.0	0.00	0.00	10,717.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,200.0	0.00	0.00	10,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,300.0	0.00	0.00	10,917.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,400.0	0.00	0.00	11,017.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,500.0	0.00	0.00	11,117.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,600.0	0.00	0.00	11,217.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,700.0	0.00	0.00	11,317.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,800.0	0.00	0.00	11,417.1	2,512.4	115.7	2,515.1	0.00	0.00	
11,900.0	0.00	0.00	11,517.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,000.0	0.00	0.00	11,617.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,100.0	0.00	0.00	11,717.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,200.0	0.00	0.00	11,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,300.0	0.00	0.00	11,917.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,400.0	0.00	0.00	12,017.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,500.0	0.00	0.00	12,117.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,600.0	0.00	0.00	12,217.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,700.0	0.00	0.00	12,317.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,702.9	0.00	0.00	12,320.0	2,512.4	115.7	2,515.1	0.00	0.00	Rollins - F25 496 SGU 8514D-25 BHL
12,800.0	0.00	0.00	12,417.1	2,512.4	115.7	2,515.1	0.00	0.00	
12,900.0	0.00	0.00	12,517.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,000.0	0.00	0.00	12,617.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,032.9	0.00	0.00	12,650.0	2,512.4	115.7	2,515.1	0.00	0.00	Cozzette
13,100.0	0.00	0.00	12,717.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,200.0	0.00	0.00	12,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,222.9	0.00	0.00	12,840.0	2,512.4	115.7	2,515.1	0.00	0.00	Corcoran
13,300.0	0.00	0.00	12,917.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,400.0	0.00	0.00	13,017.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,500.0	0.00	0.00	13,117.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,502.9	0.00	0.00	13,120.0	2,512.4	115.7	2,515.1	0.00	0.00	Sego
13,600.0	0.00	0.00	13,217.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,700.0	0.00	0.00	13,317.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,702.9	0.00	0.00	13,320.0	2,512.4	115.7	2,515.1	0.00	0.00	Lower Sego
13,800.0	0.00	0.00	13,417.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,900.0	0.00	0.00	13,517.1	2,512.4	115.7	2,515.1	0.00	0.00	
13,952.9	0.00	0.00	13,570.0	2,512.4	115.7	2,515.1	0.00	0.00	Drillers TD @ 13570' TVD
14,000.0	0.00	0.00	13,617.1	2,512.4	115.7	2,515.1	0.00	0.00	
14,100.0	0.00	0.00	13,717.1	2,512.4	115.7	2,515.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well SGU 8514D-24
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8320.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8320.0ft (Original Well Elev)
Site:	F25 496	North Reference:	True
Well:	SGU 8514D-24	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,200.0	0.00	0.00	13,817.1	2,512.4	115.7	2,515.1	0.00	0.00	
14,202.9	0.00	0.00	13,820.0	2,512.4	115.7	2,515.1	0.00	0.00	

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
F25 496 SGU 8514D-25	0.00	0.00	8,660.0	2,512.4	115.7	1,683,671.30	2,262,940.50	39° 40' 52.68 N	108° 7' 8.77 W
- plan hits target center									
- Point									
F25 496 SGU 8514D-25	0.00	0.00	12,320.0	2,512.4	115.7	1,683,671.30	2,262,940.50	39° 40' 52.68 N	108° 7' 8.77 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,671.2	1,620.0	Para Creek		0.00	
1,986.2	1,920.0	Mahog Bench		0.00	
2,049.2	1,980.0	Base B		0.00	
5,765.8	5,520.0	Was G		0.00	
9,002.9	8,620.0	WF		0.00	
9,042.9	8,660.0	TOG		0.00	
12,702.9	12,320.0	Rollins		0.00	
13,032.9	12,650.0	Cozzette		0.00	
13,222.9	12,840.0	Corcoran		0.00	
13,502.9	13,120.0	Sego		0.00	
13,702.9	13,320.0	Lower Sego		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
791.2	781.8	90.7	4.2	EOB; Inc=17.74°
8,451.7	8,078.2	2,421.8	111.5	Start Drop -3.00
9,042.9	8,660.0	2,512.4	115.7	EOD; Inc=0°
13,952.9	13,570.0	2,512.4	115.7	Drillers TD @ 13570' TVD
14,202.9	13,820.0	2,512.4	115.7	Permit TD @ 13820' TVD