

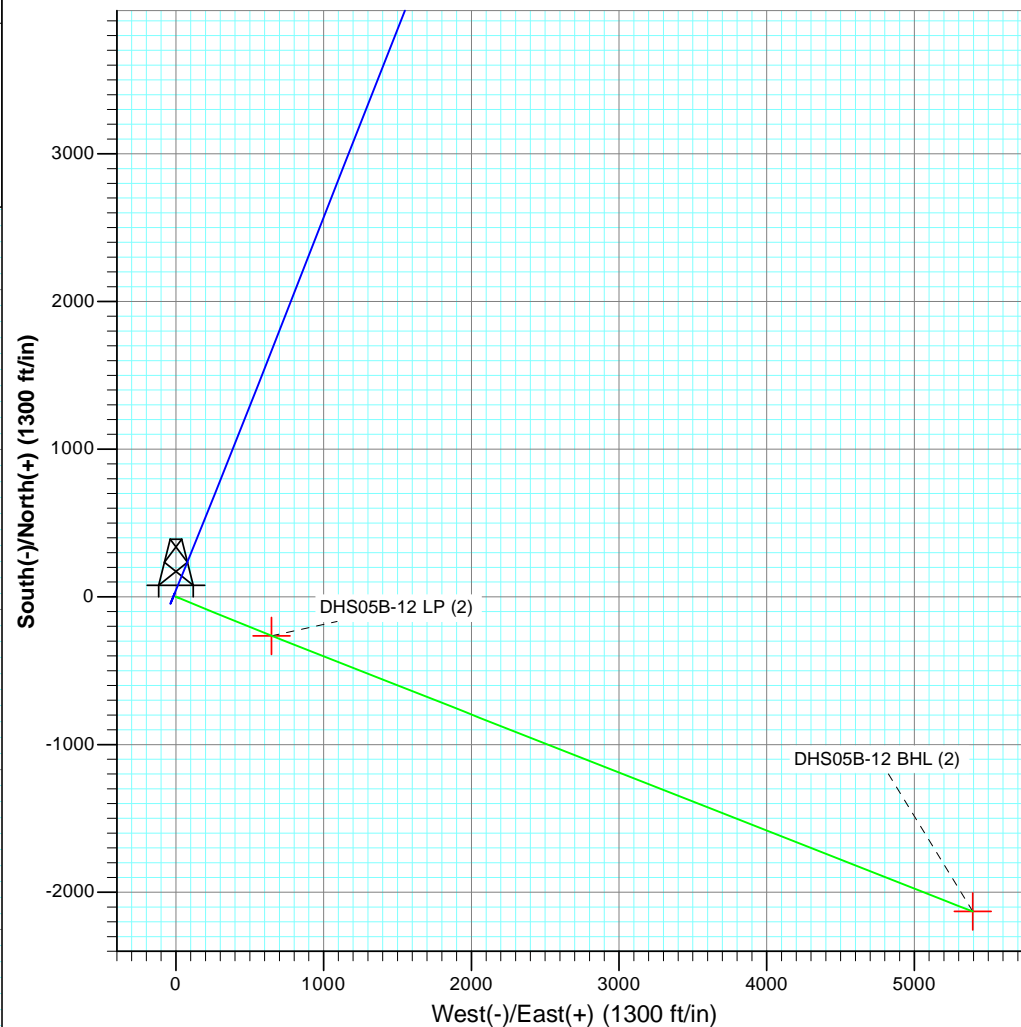
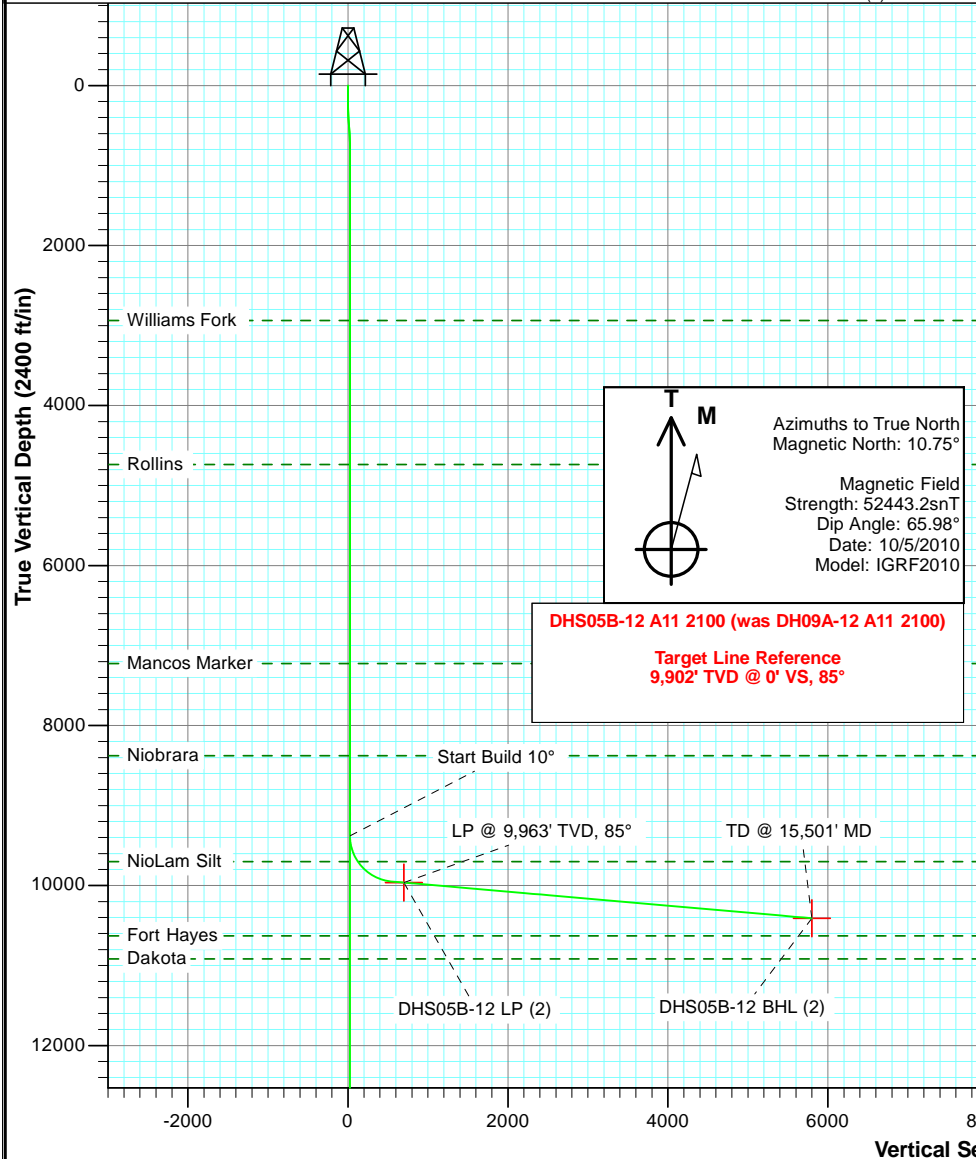


Project: Buckhorn Draw (HZ)
Site: Sec 11-2S-R100W
Well: DHS05B-12 A11 2100 (was DH09A-12 A11 2100)
Wellbore: Hz
Plan: Plan #2



SECTION DETAILS

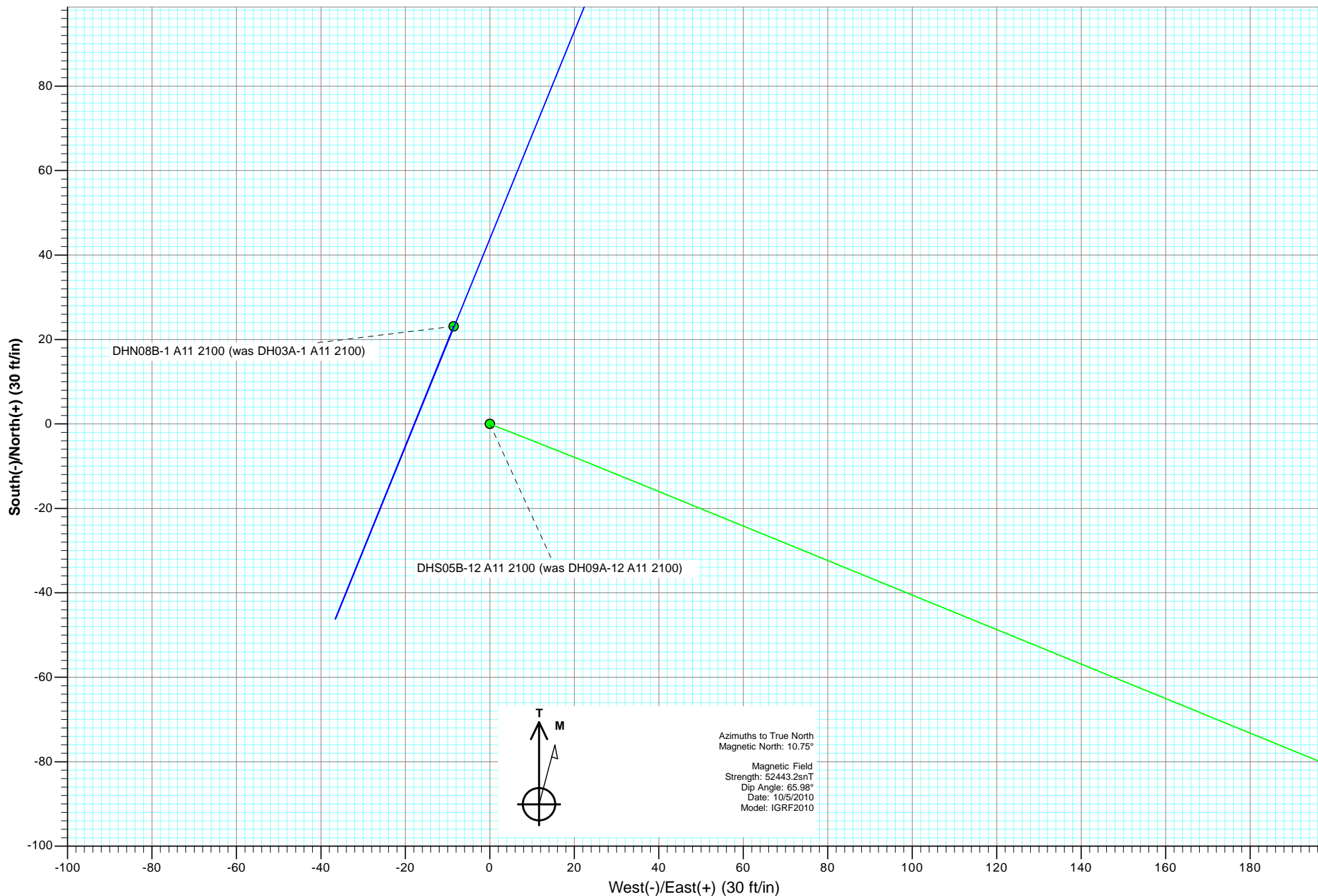
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	400.5	4.01	111.56	400.3	-2.6	6.5	2.00	111.56	7.0	
4	564.6	4.01	111.56	564.0	-6.8	17.2	0.00	0.00	18.5	
5	765.1	0.00	0.00	764.4	-9.4	23.7	2.00	180.00	25.5	
6	9379.7	0.00	0.00	9379.0	-9.4	23.7	0.00	0.00	25.5	
7	10229.7	85.00	112.22	9949.8	-207.2	507.9	10.00	112.22	548.5	
8	10373.8	85.00	112.22	9962.3	-261.5	640.8	0.00	0.00	692.0	
9	10381.3	85.00	111.47	9963.0	-264.2	647.7	10.00	-89.61	699.5	DHS05B-12 LP (2)
10	15501.1	85.00	111.47	10409.0	-2130.8	5394.2	0.00	0.00	5799.8	DHS05B-12 BHL (2)



Plan #2 DHS05B-12 A11 2100 (was DH09A-12 A11 2100) 115XXX; SC						
KBE @ 7963.0ft (Revised Well Elevation) North American Datum 1983 Well DHS05B-12 A11 2100 (was DH09A-12 A11 2100), True North						
Type	Target	Azimuth	Origin	N/S	E/W	From
TD	No Target (Freehand)	111.56	Slot	0.0	0.0	TVD
Name		TVD				Longitude
DHS05B-12 LP (2)		9963.0				108° 34' 34.92 W
DHS05B-12 BHL (2)		10409.0				108° 33' 34.03 W



Project: Buckhorn Draw (HZ)
Site: Sec 11-2S-R100W
Well: DHS05B-12 A11 2100 (was DH09A-12 A11 2100)
Wellbore: HZ
Plan: Plan #2



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

Project	Buckhorn Draw (HZ)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Sec 11-2S-R100W			
Site Position:		Northing:	1,765,302.83 ft	Latitude: 39° 53' 39.77 N
From:	Lat/Long	Easting:	2,136,283.89 ft	Longitude: 108° 34' 43.23 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence: -1.94 °

Well	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)			
Well Position	+N/-S	0.0 ft	Northing:	1,765,302.80 ft
	+E/-W	0.0 ft	Easting:	2,136,283.89 ft
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft
			Ground Level:	7,941.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/5/2010	10.75	65.98	52,443

Design	Plan #2			
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	111.56

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	
400.5	4.01	111.56	400.3	-2.6	6.5	2.00	2.00	0.00	111.56	
564.6	4.01	111.56	564.0	-6.8	17.2	0.00	0.00	0.00	0.00	
765.1	0.00	0.00	764.4	-9.4	23.7	2.00	-2.00	0.00	180.00	
9,379.7	0.00	0.00	9,379.0	-9.4	23.7	0.00	0.00	0.00	0.00	
10,229.7	85.00	112.22	9,949.8	-207.2	507.9	10.00	10.00	0.00	112.22	
10,373.8	85.00	112.22	9,962.3	-261.5	640.8	0.00	0.00	0.00	0.00	
10,381.3	85.00	111.47	9,963.0	-264.2	647.7	10.00	0.07	-10.04	-89.61	DHS05B-12 LP (2)
15,501.1	85.00	111.47	10,409.0	-2,130.8	5,394.2	0.00	0.00	0.00	0.00	DHS05B-12 BHL (2)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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	2.00	111.56	300.0	-0.6	1.6	1.7	2.00	2.00	
400.5	4.01	111.56	400.3	-2.6	6.5	7.0	2.00	2.00	EOB @ Inc. = 4.01°
500.0	4.01	111.56	499.6	-5.1	13.0	14.0	0.00	0.00	
564.6	4.01	111.56	564.0	-6.8	17.2	18.5	0.00	0.00	Start Drop -2°
600.0	3.30	111.56	599.4	-7.6	19.3	20.7	2.00	-2.00	
700.0	1.30	111.56	699.3	-9.1	23.0	24.8	2.00	-2.00	
765.1	0.00	0.00	764.4	-9.4	23.7	25.5	2.00	-2.00	EOD @ Inc. = 0°
800.0	0.00	0.00	799.3	-9.4	23.7	25.5	0.00	0.00	
900.0	0.00	0.00	899.3	-9.4	23.7	25.5	0.00	0.00	
1,000.0	0.00	0.00	999.3	-9.4	23.7	25.5	0.00	0.00	
1,100.0	0.00	0.00	1,099.3	-9.4	23.7	25.5	0.00	0.00	
1,200.0	0.00	0.00	1,199.3	-9.4	23.7	25.5	0.00	0.00	
1,300.0	0.00	0.00	1,299.3	-9.4	23.7	25.5	0.00	0.00	
1,400.0	0.00	0.00	1,399.3	-9.4	23.7	25.5	0.00	0.00	
1,500.0	0.00	0.00	1,499.3	-9.4	23.7	25.5	0.00	0.00	
1,600.0	0.00	0.00	1,599.3	-9.4	23.7	25.5	0.00	0.00	
1,700.0	0.00	0.00	1,699.3	-9.4	23.7	25.5	0.00	0.00	
1,800.0	0.00	0.00	1,799.3	-9.4	23.7	25.5	0.00	0.00	
1,900.0	0.00	0.00	1,899.3	-9.4	23.7	25.5	0.00	0.00	
2,000.0	0.00	0.00	1,999.3	-9.4	23.7	25.5	0.00	0.00	
2,100.0	0.00	0.00	2,099.3	-9.4	23.7	25.5	0.00	0.00	
2,200.0	0.00	0.00	2,199.3	-9.4	23.7	25.5	0.00	0.00	
2,300.0	0.00	0.00	2,299.3	-9.4	23.7	25.5	0.00	0.00	
2,400.0	0.00	0.00	2,399.3	-9.4	23.7	25.5	0.00	0.00	
2,500.0	0.00	0.00	2,499.3	-9.4	23.7	25.5	0.00	0.00	
2,600.0	0.00	0.00	2,599.3	-9.4	23.7	25.5	0.00	0.00	
2,700.0	0.00	0.00	2,699.3	-9.4	23.7	25.5	0.00	0.00	
2,800.0	0.00	0.00	2,799.3	-9.4	23.7	25.5	0.00	0.00	
2,900.0	0.00	0.00	2,899.3	-9.4	23.7	25.5	0.00	0.00	
2,938.7	0.00	0.00	2,938.0	-9.4	23.7	25.5	0.00	0.00	Williams Fork
3,000.0	0.00	0.00	2,999.3	-9.4	23.7	25.5	0.00	0.00	
3,100.0	0.00	0.00	3,099.3	-9.4	23.7	25.5	0.00	0.00	
3,200.0	0.00	0.00	3,199.3	-9.4	23.7	25.5	0.00	0.00	
3,300.0	0.00	0.00	3,299.3	-9.4	23.7	25.5	0.00	0.00	
3,400.0	0.00	0.00	3,399.3	-9.4	23.7	25.5	0.00	0.00	
3,500.0	0.00	0.00	3,499.3	-9.4	23.7	25.5	0.00	0.00	
3,600.0	0.00	0.00	3,599.3	-9.4	23.7	25.5	0.00	0.00	
3,700.0	0.00	0.00	3,699.3	-9.4	23.7	25.5	0.00	0.00	
3,800.0	0.00	0.00	3,799.3	-9.4	23.7	25.5	0.00	0.00	
3,900.0	0.00	0.00	3,899.3	-9.4	23.7	25.5	0.00	0.00	
4,000.0	0.00	0.00	3,999.3	-9.4	23.7	25.5	0.00	0.00	
4,100.0	0.00	0.00	4,099.3	-9.4	23.7	25.5	0.00	0.00	
4,200.0	0.00	0.00	4,199.3	-9.4	23.7	25.5	0.00	0.00	
4,300.0	0.00	0.00	4,299.3	-9.4	23.7	25.5	0.00	0.00	
4,400.0	0.00	0.00	4,399.3	-9.4	23.7	25.5	0.00	0.00	
4,500.0	0.00	0.00	4,499.3	-9.4	23.7	25.5	0.00	0.00	
4,600.0	0.00	0.00	4,599.3	-9.4	23.7	25.5	0.00	0.00	
4,700.0	0.00	0.00	4,699.3	-9.4	23.7	25.5	0.00	0.00	
4,739.7	0.00	0.00	4,739.0	-9.4	23.7	25.5	0.00	0.00	Rollins

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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	0.00	0.00	4,799.3	-9.4	23.7	25.5	0.00	0.00	
4,900.0	0.00	0.00	4,899.3	-9.4	23.7	25.5	0.00	0.00	
5,000.0	0.00	0.00	4,999.3	-9.4	23.7	25.5	0.00	0.00	
5,100.0	0.00	0.00	5,099.3	-9.4	23.7	25.5	0.00	0.00	
5,200.0	0.00	0.00	5,199.3	-9.4	23.7	25.5	0.00	0.00	
5,300.0	0.00	0.00	5,299.3	-9.4	23.7	25.5	0.00	0.00	
5,400.0	0.00	0.00	5,399.3	-9.4	23.7	25.5	0.00	0.00	
5,500.0	0.00	0.00	5,499.3	-9.4	23.7	25.5	0.00	0.00	
5,600.0	0.00	0.00	5,599.3	-9.4	23.7	25.5	0.00	0.00	
5,700.0	0.00	0.00	5,699.3	-9.4	23.7	25.5	0.00	0.00	
5,800.0	0.00	0.00	5,799.3	-9.4	23.7	25.5	0.00	0.00	
5,900.0	0.00	0.00	5,899.3	-9.4	23.7	25.5	0.00	0.00	
6,000.0	0.00	0.00	5,999.3	-9.4	23.7	25.5	0.00	0.00	
6,100.0	0.00	0.00	6,099.3	-9.4	23.7	25.5	0.00	0.00	
6,200.0	0.00	0.00	6,199.3	-9.4	23.7	25.5	0.00	0.00	
6,300.0	0.00	0.00	6,299.3	-9.4	23.7	25.5	0.00	0.00	
6,400.0	0.00	0.00	6,399.3	-9.4	23.7	25.5	0.00	0.00	
6,500.0	0.00	0.00	6,499.3	-9.4	23.7	25.5	0.00	0.00	
6,600.0	0.00	0.00	6,599.3	-9.4	23.7	25.5	0.00	0.00	
6,700.0	0.00	0.00	6,699.3	-9.4	23.7	25.5	0.00	0.00	
6,800.0	0.00	0.00	6,799.3	-9.4	23.7	25.5	0.00	0.00	
6,900.0	0.00	0.00	6,899.3	-9.4	23.7	25.5	0.00	0.00	
7,000.0	0.00	0.00	6,999.3	-9.4	23.7	25.5	0.00	0.00	
7,100.0	0.00	0.00	7,099.3	-9.4	23.7	25.5	0.00	0.00	
7,200.0	0.00	0.00	7,199.3	-9.4	23.7	25.5	0.00	0.00	
7,225.7	0.00	0.00	7,225.0	-9.4	23.7	25.5	0.00	0.00	Mancos Marker
7,300.0	0.00	0.00	7,299.3	-9.4	23.7	25.5	0.00	0.00	
7,400.0	0.00	0.00	7,399.3	-9.4	23.7	25.5	0.00	0.00	
7,500.0	0.00	0.00	7,499.3	-9.4	23.7	25.5	0.00	0.00	
7,600.0	0.00	0.00	7,599.3	-9.4	23.7	25.5	0.00	0.00	
7,700.0	0.00	0.00	7,699.3	-9.4	23.7	25.5	0.00	0.00	
7,800.0	0.00	0.00	7,799.3	-9.4	23.7	25.5	0.00	0.00	
7,900.0	0.00	0.00	7,899.3	-9.4	23.7	25.5	0.00	0.00	
8,000.0	0.00	0.00	7,999.3	-9.4	23.7	25.5	0.00	0.00	
8,100.0	0.00	0.00	8,099.3	-9.4	23.7	25.5	0.00	0.00	
8,200.0	0.00	0.00	8,199.3	-9.4	23.7	25.5	0.00	0.00	
8,300.0	0.00	0.00	8,299.3	-9.4	23.7	25.5	0.00	0.00	
8,376.7	0.00	0.00	8,376.0	-9.4	23.7	25.5	0.00	0.00	Niobrara
8,400.0	0.00	0.00	8,399.3	-9.4	23.7	25.5	0.00	0.00	
8,500.0	0.00	0.00	8,499.3	-9.4	23.7	25.5	0.00	0.00	
8,600.0	0.00	0.00	8,599.3	-9.4	23.7	25.5	0.00	0.00	
8,700.0	0.00	0.00	8,699.3	-9.4	23.7	25.5	0.00	0.00	
8,800.0	0.00	0.00	8,799.3	-9.4	23.7	25.5	0.00	0.00	
8,900.0	0.00	0.00	8,899.3	-9.4	23.7	25.5	0.00	0.00	
9,000.0	0.00	0.00	8,999.3	-9.4	23.7	25.5	0.00	0.00	
9,100.0	0.00	0.00	9,099.3	-9.4	23.7	25.5	0.00	0.00	
9,200.0	0.00	0.00	9,199.3	-9.4	23.7	25.5	0.00	0.00	
9,300.0	0.00	0.00	9,299.3	-9.4	23.7	25.5	0.00	0.00	
9,379.7	0.00	0.00	9,379.0	-9.4	23.7	25.5	0.00	0.00	Start Build 10°
9,400.0	2.03	112.22	9,399.3	-9.5	24.0	25.9	10.00	10.00	
9,450.0	7.03	112.22	9,449.1	-11.0	27.7	29.8	10.00	10.00	
9,500.0	12.03	112.22	9,498.4	-14.1	35.4	38.1	10.00	10.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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
9,550.0	17.03	112.22	9,546.8	-18.9	47.0	50.6	10.00	10.00	
9,600.0	22.03	112.22	9,593.9	-25.2	62.4	67.3	10.00	10.00	
9,650.0	27.03	112.22	9,639.4	-33.0	81.6	88.1	10.00	10.00	
9,700.0	32.03	112.22	9,682.9	-42.4	104.4	112.7	10.00	10.00	
9,720.5	34.07	112.22	9,700.0	-46.6	114.8	123.9	10.00	10.00	NioLam Silt
9,750.0	37.03	112.22	9,724.0	-53.1	130.7	141.0	10.00	10.00	
9,800.0	42.03	112.22	9,762.6	-65.1	160.1	172.8	10.00	10.00	
9,850.0	47.03	112.22	9,798.2	-78.4	192.6	207.9	10.00	10.00	
9,900.0	52.03	112.22	9,830.7	-92.7	227.8	245.9	10.00	10.00	
9,950.0	57.03	112.22	9,859.7	-108.1	265.5	286.6	10.00	10.00	
10,000.0	62.03	112.22	9,885.0	-124.4	305.3	329.7	10.00	10.00	
10,050.0	67.03	112.22	9,906.5	-141.5	347.1	374.8	10.00	10.00	
10,100.0	72.03	112.22	9,924.0	-159.2	390.5	421.6	10.00	10.00	
10,150.0	77.03	112.22	9,937.3	-177.4	435.1	469.8	10.00	10.00	
10,200.0	82.03	112.22	9,946.4	-196.0	480.6	519.0	10.00	10.00	
10,229.7	85.00	112.22	9,949.8	-207.2	507.9	548.5	10.00	10.00	
10,300.0	85.00	112.22	9,955.9	-233.6	572.7	618.5	0.00	0.00	
10,373.8	85.00	112.22	9,962.3	-261.5	640.8	692.0	0.00	0.00	
10,381.3	85.00	111.47	9,963.0	-264.2	647.7	699.5	10.00	0.07	LP @ 9,963' TVD, 85°
10,400.0	85.00	111.47	9,964.6	-271.0	665.0	718.1	0.02	0.00	
10,500.0	85.00	111.47	9,973.3	-307.5	757.7	817.7	0.00	0.00	
10,600.0	85.00	111.47	9,982.0	-344.0	850.4	917.3	0.00	0.00	
10,700.0	85.00	111.47	9,990.8	-380.4	943.2	1,017.0	0.00	0.00	
10,800.0	85.00	111.47	9,999.5	-416.9	1,035.9	1,116.6	0.00	0.00	
10,900.0	85.00	111.47	10,008.2	-453.3	1,128.6	1,216.2	0.00	0.00	
11,000.0	85.00	111.47	10,016.9	-489.8	1,221.3	1,315.8	0.00	0.00	
11,100.0	85.00	111.47	10,025.6	-526.3	1,314.0	1,415.4	0.00	0.00	
11,200.0	85.00	111.47	10,034.3	-562.7	1,406.7	1,515.1	0.00	0.00	
11,300.0	85.00	111.47	10,043.0	-599.2	1,499.4	1,614.7	0.00	0.00	
11,400.0	85.00	111.47	10,051.7	-635.6	1,592.1	1,714.3	0.00	0.00	
11,500.0	85.00	111.47	10,060.5	-672.1	1,684.8	1,813.9	0.00	0.00	
11,600.0	85.00	111.47	10,069.2	-708.5	1,777.5	1,913.5	0.00	0.00	
11,700.0	85.00	111.47	10,077.9	-745.0	1,870.2	2,013.2	0.00	0.00	
11,800.0	85.00	111.47	10,086.6	-781.5	1,963.0	2,112.8	0.00	0.00	
11,900.0	85.00	111.47	10,095.3	-817.9	2,055.7	2,212.4	0.00	0.00	
12,000.0	85.00	111.47	10,104.0	-854.4	2,148.4	2,312.0	0.00	0.00	
12,100.0	85.00	111.47	10,112.7	-890.8	2,241.1	2,411.6	0.00	0.00	
12,200.0	85.00	111.47	10,121.4	-927.3	2,333.8	2,511.3	0.00	0.00	
12,300.0	85.00	111.47	10,130.1	-963.8	2,426.5	2,610.9	0.00	0.00	
12,400.0	85.00	111.47	10,138.9	-1,000.2	2,519.2	2,710.5	0.00	0.00	
12,500.0	85.00	111.47	10,147.6	-1,036.7	2,611.9	2,810.1	0.00	0.00	
12,600.0	85.00	111.47	10,156.3	-1,073.1	2,704.6	2,909.7	0.00	0.00	
12,700.0	85.00	111.47	10,165.0	-1,109.6	2,797.3	3,009.4	0.00	0.00	
12,800.0	85.00	111.47	10,173.7	-1,146.0	2,890.0	3,109.0	0.00	0.00	
12,900.0	85.00	111.47	10,182.4	-1,182.5	2,982.7	3,208.6	0.00	0.00	
13,000.0	85.00	111.47	10,191.1	-1,219.0	3,075.5	3,308.2	0.00	0.00	
13,100.0	85.00	111.47	10,199.8	-1,255.4	3,168.2	3,407.8	0.00	0.00	
13,200.0	85.00	111.47	10,208.5	-1,291.9	3,260.9	3,507.5	0.00	0.00	
13,300.0	85.00	111.47	10,217.3	-1,328.3	3,353.6	3,607.1	0.00	0.00	
13,400.0	85.00	111.47	10,226.0	-1,364.8	3,446.3	3,706.7	0.00	0.00	
13,500.0	85.00	111.47	10,234.7	-1,401.2	3,539.0	3,806.3	0.00	0.00	
13,600.0	85.00	111.47	10,243.4	-1,437.7	3,631.7	3,905.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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
13,700.0	85.00	111.47	10,252.1	-1,474.2	3,724.4	4,005.6	0.00	0.00	
13,800.0	85.00	111.47	10,260.8	-1,510.6	3,817.1	4,105.2	0.00	0.00	
13,900.0	85.00	111.47	10,269.5	-1,547.1	3,909.8	4,204.8	0.00	0.00	
14,000.0	85.00	111.47	10,278.2	-1,583.5	4,002.5	4,304.4	0.00	0.00	
14,100.0	85.00	111.47	10,286.9	-1,620.0	4,095.3	4,404.0	0.00	0.00	
14,200.0	85.00	111.47	10,295.7	-1,656.5	4,188.0	4,503.6	0.00	0.00	
14,300.0	85.00	111.47	10,304.4	-1,692.9	4,280.7	4,603.3	0.00	0.00	
14,400.0	85.00	111.47	10,313.1	-1,729.4	4,373.4	4,702.9	0.00	0.00	
14,500.0	85.00	111.47	10,321.8	-1,765.8	4,466.1	4,802.5	0.00	0.00	
14,600.0	85.00	111.47	10,330.5	-1,802.3	4,558.8	4,902.1	0.00	0.00	
14,700.0	85.00	111.47	10,339.2	-1,838.7	4,651.5	5,001.7	0.00	0.00	
14,800.0	85.00	111.47	10,347.9	-1,875.2	4,744.2	5,101.4	0.00	0.00	
14,900.0	85.00	111.47	10,356.6	-1,911.7	4,836.9	5,201.0	0.00	0.00	
15,000.0	85.00	111.47	10,365.4	-1,948.1	4,929.6	5,300.6	0.00	0.00	
15,100.0	85.00	111.47	10,374.1	-1,984.6	5,022.3	5,400.2	0.00	0.00	
15,200.0	85.00	111.47	10,382.8	-2,021.0	5,115.0	5,499.8	0.00	0.00	
15,300.0	85.00	111.47	10,391.5	-2,057.5	5,207.8	5,599.5	0.00	0.00	
15,400.0	85.00	111.47	10,400.2	-2,094.0	5,300.5	5,699.1	0.00	0.00	
15,501.1	85.00	111.47	10,409.0	-2,130.8	5,394.2	5,799.8	0.00	0.00	TD @ 15,501' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
DHS05B-12 LP (2) - plan hits target center - Point	0.00	0.00	9,963.0	-264.2	647.7	1,765,016.76	2,136,922.30	39° 53' 37.16 N	108° 34' 34.92 W
DH09A-12 Landing Pt - plan misses target center by 925.7ft at 10563.3ft MD (9978.9 TVD, -330.6 N, 816.4 E) - Point	0.00	0.00	10,901.0	-293.9	744.2	1,764,983.87	2,137,017.73	39° 53' 36.87 N	108° 34' 33.68 W
DHS05B-12 BHL (2) - plan hits target center - Point	0.00	0.00	10,409.0	-2,130.8	5,394.2	1,762,990.46	2,141,602.76	39° 53' 18.71 N	108° 33' 34.03 W
DH09A-12 Permit TD - plan misses target center by 317.0ft at 15501.1ft MD (10409.0 TVD, -2130.8 N, 5394.2 E) - Point	0.00	0.00	10,726.0	-2,130.8	5,394.2	1,762,990.46	2,141,602.76	39° 53' 18.71 N	108° 33' 34.03 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,938.7	2,938.0	Williams Fork		0.00	
4,739.7	4,739.0	Rollins		0.00	
7,225.7	7,225.0	Mancos Marker		0.00	
8,376.7	8,376.0	Niobrara		0.00	
9,720.5	9,700.0	NioLam Silt		0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHS05B-12 A11 2100 (was DH09A-12 A11
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Project:	Buckhorn Draw (HZ)	MD Reference:	KBE @ 7963.0ft (Revised Well Elevation)
Site:	Sec 11-2S-R100W	North Reference:	True
Well:	DHS05B-12 A11 2100 (was DH09A-12 A11 2100)	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #2		

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'
400.5	400.3	-2.6	6.5	EOB @ Inc. = 4.01°
564.6	564.0	-6.8	17.2	Start Drop -2°
765.1	764.4	-9.4	23.7	EOD @ Inc. = 0°
9,379.7	9,379.0	-9.4	23.7	Start Build 10°
10,381.3	9,963.0	-207.2	507.9	LP @ 9,963' TVD, 85°
15,501.1	10,409.0	-261.5	640.8	TD @ 15,501' MD