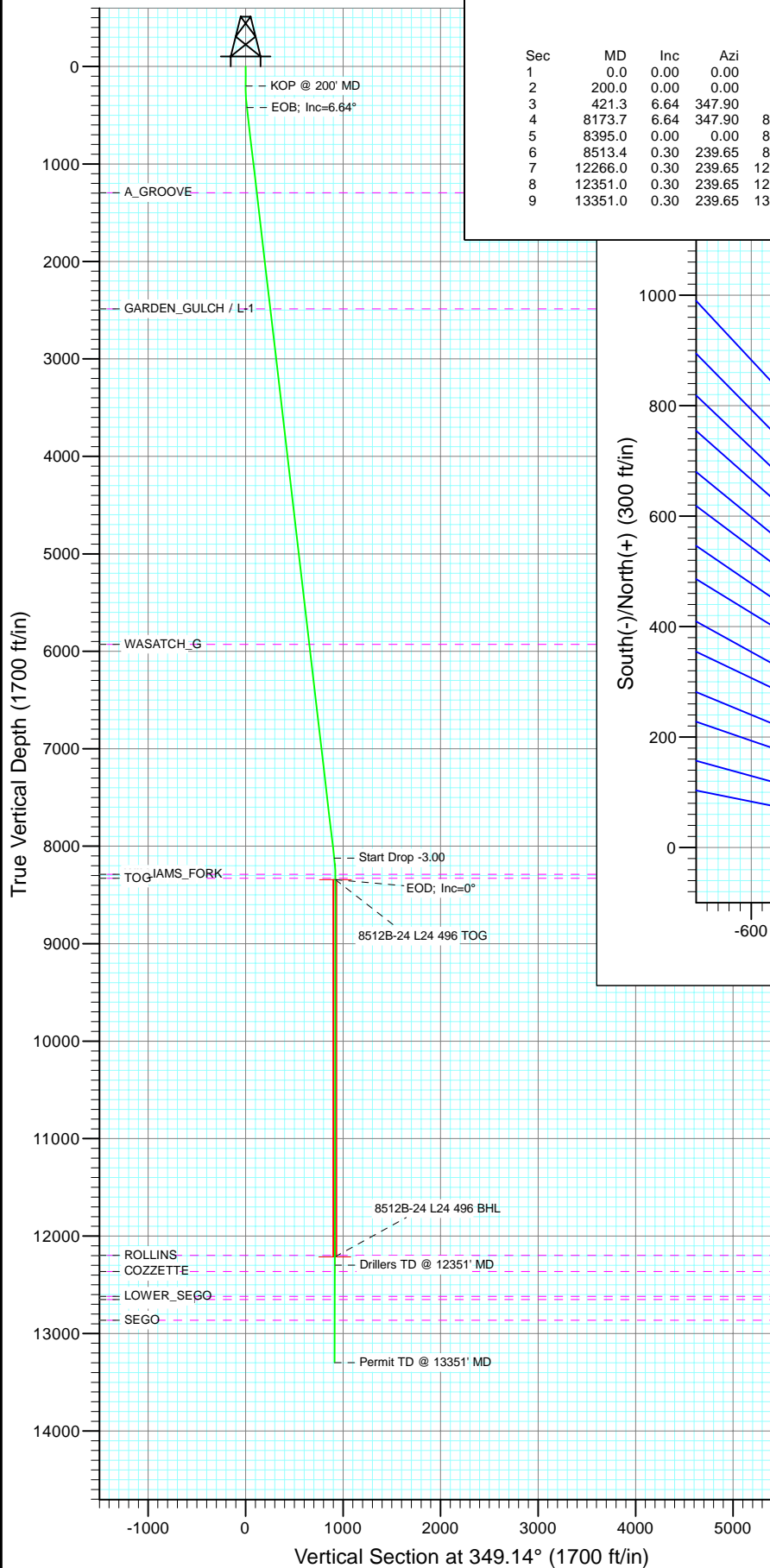
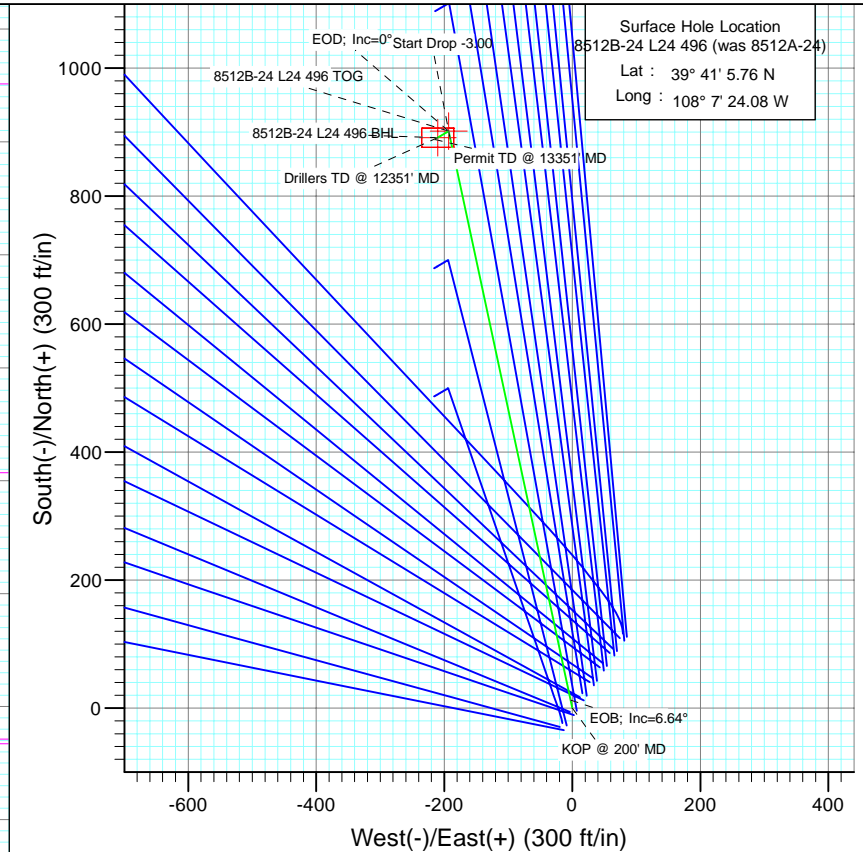




Project: Story Gulch
Site: L24 496
Well: 8512B-24 L24 496 (was 8512A-24)
Wellbore: DD
Design: Plan #2



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	421.3	6.64	347.90	420.8	12.5	-2.7	3.00	347.90	12.8	
4	8173.7	6.64	347.90	8121.2	888.9	-190.6	0.00	0.00	908.9	
5	8395.0	0.00	0.00	8342.0	901.4	-193.3	3.00	180.00	921.7	8512B-24 L24 496 TOG
6	8513.4	0.30	239.65	8460.4	901.2	-193.6	0.25	239.65	921.6	
7	12266.0	0.30	239.65	12213.0	891.4	-210.3	0.00	0.00	915.1	8512B-24 L24 496 BHL
8	12351.0	0.30	239.65	12298.0	891.2	-210.7	0.00	0.00	915.0	
9	13351.0	0.30	239.65	13298.0	888.6	-215.1	0.00	0.00	913.2	



Azimuths to True North
Magnetic North: 10.44°

Magnetic Field
Strength: 52326.4snT
Dip Angle: 65.87°
Date: 5/17/2011
Model: IGRF2010

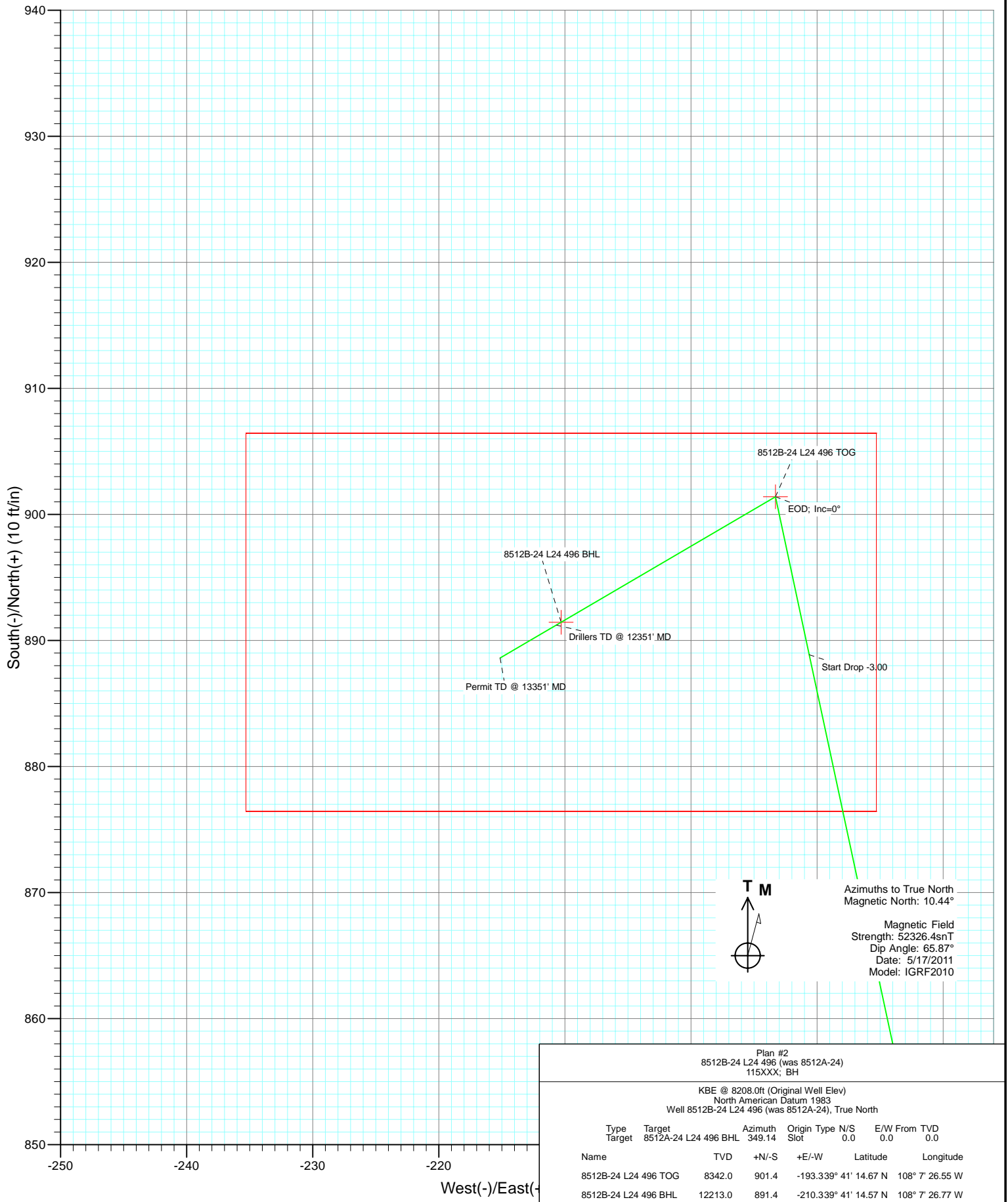
FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
1295.0	1301.4	A_GROOVE
2487.0	2501.4	GARDEN_GULCH / L-1
5928.0	5965.7	WASATCH_G
8289.0	8342.0	WILLIAMS_FORK
8329.0	8382.0	TOG
12198.0	12251.0	ROLLINS
12364.0	12417.0	COZZETTE
12618.0	12671.0	LOWER_SEGO
12651.0	12704.0	CORCORAN
12863.0	12916.0	SEGO

Plan #2 8512B-24 L24 496 (was 8512A-24) 115XXX; BH						
KBE @ 8208.0ft (Original Well Elev) North American Datum 1983 Well 8512B-24 L24 496 (was 8512A-24), True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Target	8512A-24 L24 496 BHL	349.14	Slot	0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
8512B-24 L24 496 TOG	8342.0	901.4	-193.339° 41'	14.67 N	108° 7' 26.55 W	
8512B-24 L24 496 BHL	12213.0	891.4	-210.339° 41'	14.57 N	108° 7' 26.77 W	



Project: Story Gulch
 Site: L24 496
 Well: 8512B-24 L24 496 (was 8512A-24)
 Wellbore: DD
 Design: Plan #2



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8512B-24 L24 496 (was 8512A-24)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8512B-24 L24 496 (was 8512A-24)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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		L24 496			
Site Position:		Northing:	1,685,024.52 ft	Latitude:	39° 41' 5.72 N
From:	Lat/Long	Easting:	2,261,789.15 ft	Longitude:	108° 7' 23.99 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	8512B-24 L24 496 (was 8512A-24)					
Well Position	+N/-S	0.0 ft	Northing:	1,685,028.75 ft	Latitude:	39° 41' 5.76 N
	+E/-W	0.0 ft	Easting:	2,261,782.24 ft	Longitude:	108° 7' 24.08 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,193.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/17/2011	10.44	65.87	52,326

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	349.14

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	
421.3	6.64	347.90	420.8	12.5	-2.7	3.00	3.00	0.00	347.90	
8,173.7	6.64	347.90	8,121.2	888.9	-190.6	0.00	0.00	0.00	0.00	
8,395.0	0.00	0.00	8,342.0	901.4	-193.3	3.00	-3.00	0.00	180.00	8512B-24 L24 496 TC
8,513.4	0.30	239.65	8,460.4	901.2	-193.6	0.25	0.25	-101.65	239.65	
12,266.0	0.30	239.65	12,213.0	891.4	-210.3	0.00	0.00	0.00	0.00	8512B-24 L24 496 B+
12,351.0	0.30	239.65	12,298.0	891.2	-210.7	0.00	0.00	0.00	0.00	
13,351.0	0.30	239.65	13,298.0	888.6	-215.1	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 8512B-24 L24 496 (was 8512A-24)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8512B-24 L24 496 (was 8512A-24)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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' MD
300.0	3.00	347.90	300.0	2.6	-0.5	2.6	3.00	3.00	
400.0	6.00	347.90	399.6	10.2	-2.2	10.5	3.00	3.00	
421.3	6.64	347.90	420.8	12.5	-2.7	12.8	3.00	3.00	EOB; Inc=6.64°
500.0	6.64	347.90	499.0	21.4	-4.6	21.9	0.00	0.00	
600.0	6.64	347.90	598.3	32.7	-7.0	33.5	0.00	0.00	
700.0	6.64	347.90	697.6	44.0	-9.4	45.0	0.00	0.00	
800.0	6.64	347.90	797.0	55.3	-11.9	56.6	0.00	0.00	
900.0	6.64	347.90	896.3	66.6	-14.3	68.1	0.00	0.00	
1,000.0	6.64	347.90	995.6	77.9	-16.7	79.7	0.00	0.00	
1,100.0	6.64	347.90	1,095.0	89.2	-19.1	91.3	0.00	0.00	
1,200.0	6.64	347.90	1,194.3	100.5	-21.6	102.8	0.00	0.00	
1,300.0	6.64	347.90	1,293.6	111.9	-24.0	114.4	0.00	0.00	
1,301.4	6.64	347.90	1,295.0	112.0	-24.0	114.5	0.00	0.00	A_GROOVE
1,400.0	6.64	347.90	1,392.9	123.2	-26.4	125.9	0.00	0.00	
1,500.0	6.64	347.90	1,492.3	134.5	-28.8	137.5	0.00	0.00	
1,600.0	6.64	347.90	1,591.6	145.8	-31.3	149.0	0.00	0.00	
1,700.0	6.64	347.90	1,690.9	157.1	-33.7	160.6	0.00	0.00	
1,800.0	6.64	347.90	1,790.3	168.4	-36.1	172.2	0.00	0.00	
1,900.0	6.64	347.90	1,889.6	179.7	-38.5	183.7	0.00	0.00	
2,000.0	6.64	347.90	1,988.9	191.0	-41.0	195.3	0.00	0.00	
2,100.0	6.64	347.90	2,088.2	202.3	-43.4	206.8	0.00	0.00	
2,200.0	6.64	347.90	2,187.6	213.6	-45.8	218.4	0.00	0.00	
2,300.0	6.64	347.90	2,286.9	224.9	-48.2	230.0	0.00	0.00	
2,400.0	6.64	347.90	2,386.2	236.2	-50.7	241.5	0.00	0.00	
2,500.0	6.64	347.90	2,485.6	247.5	-53.1	253.1	0.00	0.00	
2,501.4	6.64	347.90	2,487.0	247.7	-53.1	253.2	0.00	0.00	GARDEN_GULCH / L-1
2,600.0	6.64	347.90	2,584.9	258.8	-55.5	264.6	0.00	0.00	
2,700.0	6.64	347.90	2,684.2	270.1	-57.9	276.2	0.00	0.00	
2,800.0	6.64	347.90	2,783.6	281.4	-60.3	287.7	0.00	0.00	
2,900.0	6.64	347.90	2,882.9	292.7	-62.8	299.3	0.00	0.00	
3,000.0	6.64	347.90	2,982.2	304.0	-65.2	310.9	0.00	0.00	
3,100.0	6.64	347.90	3,081.5	315.3	-67.6	322.4	0.00	0.00	
3,200.0	6.64	347.90	3,180.9	326.6	-70.0	334.0	0.00	0.00	
3,300.0	6.64	347.90	3,280.2	337.9	-72.5	345.5	0.00	0.00	
3,400.0	6.64	347.90	3,379.5	349.2	-74.9	357.1	0.00	0.00	
3,500.0	6.64	347.90	3,478.9	360.5	-77.3	368.7	0.00	0.00	
3,600.0	6.64	347.90	3,578.2	371.9	-79.7	380.2	0.00	0.00	
3,700.0	6.64	347.90	3,677.5	383.2	-82.2	391.8	0.00	0.00	
3,800.0	6.64	347.90	3,776.8	394.5	-84.6	403.3	0.00	0.00	
3,900.0	6.64	347.90	3,876.2	405.8	-87.0	414.9	0.00	0.00	
4,000.0	6.64	347.90	3,975.5	417.1	-89.4	426.5	0.00	0.00	
4,100.0	6.64	347.90	4,074.8	428.4	-91.9	438.0	0.00	0.00	
4,200.0	6.64	347.90	4,174.2	439.7	-94.3	449.6	0.00	0.00	
4,300.0	6.64	347.90	4,273.5	451.0	-96.7	461.1	0.00	0.00	
4,400.0	6.64	347.90	4,372.8	462.3	-99.1	472.7	0.00	0.00	
4,500.0	6.64	347.90	4,472.2	473.6	-101.6	484.2	0.00	0.00	
4,600.0	6.64	347.90	4,571.5	484.9	-104.0	495.8	0.00	0.00	
4,700.0	6.64	347.90	4,670.8	496.2	-106.4	507.4	0.00	0.00	
4,800.0	6.64	347.90	4,770.1	507.5	-108.8	518.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8512B-24 L24 496 (was 8512A-24)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8512B-24 L24 496 (was 8512A-24)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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
4,900.0	6.64	347.90	4,869.5	518.8	-111.3	530.5	0.00	0.00	
5,000.0	6.64	347.90	4,968.8	530.1	-113.7	542.0	0.00	0.00	
5,100.0	6.64	347.90	5,068.1	541.4	-116.1	553.6	0.00	0.00	
5,200.0	6.64	347.90	5,167.5	552.7	-118.5	565.2	0.00	0.00	
5,300.0	6.64	347.90	5,266.8	564.0	-121.0	576.7	0.00	0.00	
5,400.0	6.64	347.90	5,366.1	575.3	-123.4	588.3	0.00	0.00	
5,500.0	6.64	347.90	5,465.4	586.6	-125.8	599.8	0.00	0.00	
5,600.0	6.64	347.90	5,564.8	597.9	-128.2	611.4	0.00	0.00	
5,700.0	6.64	347.90	5,664.1	609.2	-130.6	622.9	0.00	0.00	
5,800.0	6.64	347.90	5,763.4	620.5	-133.1	634.5	0.00	0.00	
5,900.0	6.64	347.90	5,862.8	631.9	-135.5	646.1	0.00	0.00	
5,965.7	6.64	347.90	5,928.0	639.3	-137.1	653.7	0.00	0.00	WASATCH_G
6,000.0	6.64	347.90	5,962.1	643.2	-137.9	657.6	0.00	0.00	
6,100.0	6.64	347.90	6,061.4	654.5	-140.3	669.2	0.00	0.00	
6,200.0	6.64	347.90	6,160.8	665.8	-142.8	680.7	0.00	0.00	
6,300.0	6.64	347.90	6,260.1	677.1	-145.2	692.3	0.00	0.00	
6,400.0	6.64	347.90	6,359.4	688.4	-147.6	703.9	0.00	0.00	
6,500.0	6.64	347.90	6,458.7	699.7	-150.0	715.4	0.00	0.00	
6,600.0	6.64	347.90	6,558.1	711.0	-152.5	727.0	0.00	0.00	
6,700.0	6.64	347.90	6,657.4	722.3	-154.9	738.5	0.00	0.00	
6,800.0	6.64	347.90	6,756.7	733.6	-157.3	750.1	0.00	0.00	
6,900.0	6.64	347.90	6,856.1	744.9	-159.7	761.7	0.00	0.00	
7,000.0	6.64	347.90	6,955.4	756.2	-162.2	773.2	0.00	0.00	
7,100.0	6.64	347.90	7,054.7	767.5	-164.6	784.8	0.00	0.00	
7,200.0	6.64	347.90	7,154.0	778.8	-167.0	796.3	0.00	0.00	
7,300.0	6.64	347.90	7,253.4	790.1	-169.4	807.9	0.00	0.00	
7,400.0	6.64	347.90	7,352.7	801.4	-171.9	819.4	0.00	0.00	
7,500.0	6.64	347.90	7,452.0	812.7	-174.3	831.0	0.00	0.00	
7,600.0	6.64	347.90	7,551.4	824.0	-176.7	842.6	0.00	0.00	
7,700.0	6.64	347.90	7,650.7	835.3	-179.1	854.1	0.00	0.00	
7,800.0	6.64	347.90	7,750.0	846.6	-181.6	865.7	0.00	0.00	
7,900.0	6.64	347.90	7,849.4	857.9	-184.0	877.2	0.00	0.00	
8,000.0	6.64	347.90	7,948.7	869.2	-186.4	888.8	0.00	0.00	
8,100.0	6.64	347.90	8,048.0	880.5	-188.8	900.4	0.00	0.00	
8,173.7	6.64	347.90	8,121.2	888.9	-190.6	908.9	0.00	0.00	Start Drop -3.00
8,200.0	5.85	347.90	8,147.4	891.7	-191.2	911.7	3.00	-3.00	
8,300.0	2.85	347.90	8,247.1	899.1	-192.8	919.3	3.00	-3.00	
8,342.0	1.59	347.90	8,289.0	900.7	-193.1	920.9	3.00	-3.00	WILLIAMS_FORK
8,382.0	0.39	347.90	8,329.0	901.4	-193.3	921.6	3.00	-3.00	TOG
8,395.0	0.00	0.00	8,342.0	901.4	-193.3	921.7	3.00	-3.00	EOD; Inc=0° - 8512B-24 L24 496 TOG - 8512A
8,400.0	0.01	239.65	8,347.0	901.4	-193.3	921.7	0.25	0.25	
8,500.0	0.26	239.65	8,447.0	901.3	-193.5	921.6	0.25	0.25	
8,513.4	0.30	239.65	8,460.4	901.2	-193.6	921.6	0.25	0.25	
8,600.0	0.30	239.65	8,547.0	901.0	-194.0	921.4	0.00	0.00	
8,700.0	0.30	239.65	8,647.0	900.8	-194.4	921.3	0.00	0.00	
8,800.0	0.30	239.65	8,747.0	900.5	-194.8	921.1	0.00	0.00	
8,900.0	0.30	239.65	8,847.0	900.2	-195.3	920.9	0.00	0.00	
9,000.0	0.30	239.65	8,947.0	900.0	-195.7	920.7	0.00	0.00	
9,100.0	0.30	239.65	9,047.0	899.7	-196.2	920.6	0.00	0.00	
9,200.0	0.30	239.65	9,147.0	899.5	-196.6	920.4	0.00	0.00	
9,300.0	0.30	239.65	9,247.0	899.2	-197.1	920.2	0.00	0.00	
9,400.0	0.30	239.65	9,347.0	898.9	-197.5	920.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8512B-24 L24 496 (was 8512A-24)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8512B-24 L24 496 (was 8512A-24)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
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
9,500.0	0.30	239.65	9,447.0	898.7	-198.0	919.9	0.00	0.00	
9,600.0	0.30	239.65	9,547.0	898.4	-198.4	919.7	0.00	0.00	
9,700.0	0.30	239.65	9,647.0	898.1	-198.9	919.5	0.00	0.00	
9,800.0	0.30	239.65	9,747.0	897.9	-199.3	919.4	0.00	0.00	
9,900.0	0.30	239.65	9,847.0	897.6	-199.7	919.2	0.00	0.00	
10,000.0	0.30	239.65	9,947.0	897.4	-200.2	919.0	0.00	0.00	
10,100.0	0.30	239.65	10,047.0	897.1	-200.6	918.8	0.00	0.00	
10,200.0	0.30	239.65	10,147.0	896.8	-201.1	918.7	0.00	0.00	
10,300.0	0.30	239.65	10,247.0	896.6	-201.5	918.5	0.00	0.00	
10,400.0	0.30	239.65	10,347.0	896.3	-202.0	918.3	0.00	0.00	
10,500.0	0.30	239.65	10,447.0	896.1	-202.4	918.2	0.00	0.00	
10,600.0	0.30	239.65	10,547.0	895.8	-202.9	918.0	0.00	0.00	
10,700.0	0.30	239.65	10,647.0	895.5	-203.3	917.8	0.00	0.00	
10,800.0	0.30	239.65	10,747.0	895.3	-203.8	917.6	0.00	0.00	
10,900.0	0.30	239.65	10,847.0	895.0	-204.2	917.5	0.00	0.00	
11,000.0	0.30	239.65	10,947.0	894.8	-204.6	917.3	0.00	0.00	
11,100.0	0.30	239.65	11,047.0	894.5	-205.1	917.1	0.00	0.00	
11,200.0	0.30	239.65	11,147.0	894.2	-205.5	916.9	0.00	0.00	
11,300.0	0.30	239.65	11,247.0	894.0	-206.0	916.8	0.00	0.00	
11,400.0	0.30	239.65	11,347.0	893.7	-206.4	916.6	0.00	0.00	
11,500.0	0.30	239.65	11,447.0	893.4	-206.9	916.4	0.00	0.00	
11,600.0	0.30	239.65	11,547.0	893.2	-207.3	916.3	0.00	0.00	
11,700.0	0.30	239.65	11,647.0	892.9	-207.8	916.1	0.00	0.00	
11,800.0	0.30	239.65	11,747.0	892.7	-208.2	915.9	0.00	0.00	
11,900.0	0.30	239.65	11,847.0	892.4	-208.7	915.7	0.00	0.00	
12,000.0	0.30	239.65	11,947.0	892.1	-209.1	915.6	0.00	0.00	
12,100.0	0.30	239.65	12,047.0	891.9	-209.6	915.4	0.00	0.00	
12,200.0	0.30	239.65	12,147.0	891.6	-210.0	915.2	0.00	0.00	
12,251.0	0.30	239.65	12,198.0	891.5	-210.2	915.1	0.00	0.00	ROLLINS
12,265.5	0.30	239.65	12,212.5	891.5	-210.3	915.1	0.00	0.00	8512A-24 L24 496 BHL
12,266.0	0.30	239.65	12,213.0	891.4	-210.3	915.1	0.00	0.00	8512B-24 L24 496 BHL
12,300.0	0.30	239.65	12,247.0	891.4	-210.4	915.0	0.00	0.00	
12,351.0	0.30	239.65	12,298.0	891.2	-210.7	915.0	0.00	0.00	Drillers TD @ 12351' MD
12,400.0	0.30	239.65	12,347.0	891.1	-210.9	914.9	0.00	0.00	
12,417.0	0.30	239.65	12,364.0	891.1	-211.0	914.8	0.00	0.00	COZZETTE
12,500.0	0.30	239.65	12,447.0	890.8	-211.3	914.7	0.00	0.00	
12,600.0	0.30	239.65	12,547.0	890.6	-211.8	914.5	0.00	0.00	
12,671.0	0.30	239.65	12,618.0	890.4	-212.1	914.4	0.00	0.00	LOWER_SEGO
12,700.0	0.30	239.65	12,647.0	890.3	-212.2	914.4	0.00	0.00	
12,704.0	0.30	239.65	12,651.0	890.3	-212.2	914.4	0.00	0.00	CORCORAN
12,800.0	0.30	239.65	12,747.0	890.1	-212.7	914.2	0.00	0.00	
12,900.0	0.30	239.65	12,847.0	889.8	-213.1	914.0	0.00	0.00	
12,916.0	0.30	239.65	12,863.0	889.8	-213.2	914.0	0.00	0.00	SEGO
13,000.0	0.30	239.65	12,947.0	889.5	-213.6	913.8	0.00	0.00	
13,100.0	0.30	239.65	13,047.0	889.3	-214.0	913.7	0.00	0.00	
13,200.0	0.30	239.65	13,147.0	889.0	-214.5	913.5	0.00	0.00	
13,300.0	0.30	239.65	13,247.0	888.8	-214.9	913.3	0.00	0.00	
13,351.0	0.30	239.65	13,298.0	888.6	-215.1	913.2	0.00	0.00	Permit TD @ 13351' MD

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8512B-24 L24 496 (was 8512A-24)
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8512B-24 L24 496 (was 8512A-24)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
8512A-24 L24 496 BHL	0.00	0.00	12,213.0	1,091.8	-209.5	1,686,126.14	2,261,604.34	39° 41' 16.55 N	108° 7' 26.76 W
- plan misses target center by 200.3ft at 12265.5ft MD (12212.5 TVD, 891.5 N, -210.3 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
8512B-24 L24 496 TOG	0.00	0.00	8,342.0	901.4	-193.3	1,685,935.36	2,261,615.04	39° 41' 14.67 N	108° 7' 26.55 W
- plan hits target center									
- Point									
8512A-24 L24 496 TOG	0.00	0.00	8,342.0	1,101.8	-192.5	1,686,135.62	2,261,621.66	39° 41' 16.65 N	108° 7' 26.54 W
- plan misses target center by 200.4ft at 8395.0ft MD (8342.0 TVD, 901.4 N, -193.3 E)									
- Point									
8512B-24 L24 496 BHL	0.00	0.00	12,213.0	891.4	-210.3	1,685,925.90	2,261,597.77	39° 41' 14.57 N	108° 7' 26.77 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,301.4	1,295.0	A_GROOVE				
2,501.4	2,487.0	GARDEN_GULCH / L-1				
5,965.7	5,928.0	WASATCH_G				
8,342.0	8,289.0	WILLIAMS_FORK				
8,382.0	8,329.0	TOG				
12,251.0	12,198.0	ROLLINS				
12,417.0	12,364.0	COZZETTE				
12,671.0	12,618.0	LOWER_SEGO				
12,704.0	12,651.0	CORCORAN				
12,916.0	12,863.0	SEGO				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)		
200.0	200.0	0.0	0.0	KOP @ 200' MD	
421.3	420.8	12.5	-2.7	EOB; Inc=6.64°	
8,173.7	8,121.2	888.9	-190.6	Start Drop -3.00	
8,395.0	8,342.0	901.4	-193.3	EOD; Inc=0°	
12,351.0	12,298.0	891.2	-210.7	Drillers TD @ 12351' MD	
13,351.0	13,298.0	888.6	-215.1	Permit TD @ 13351' MD	