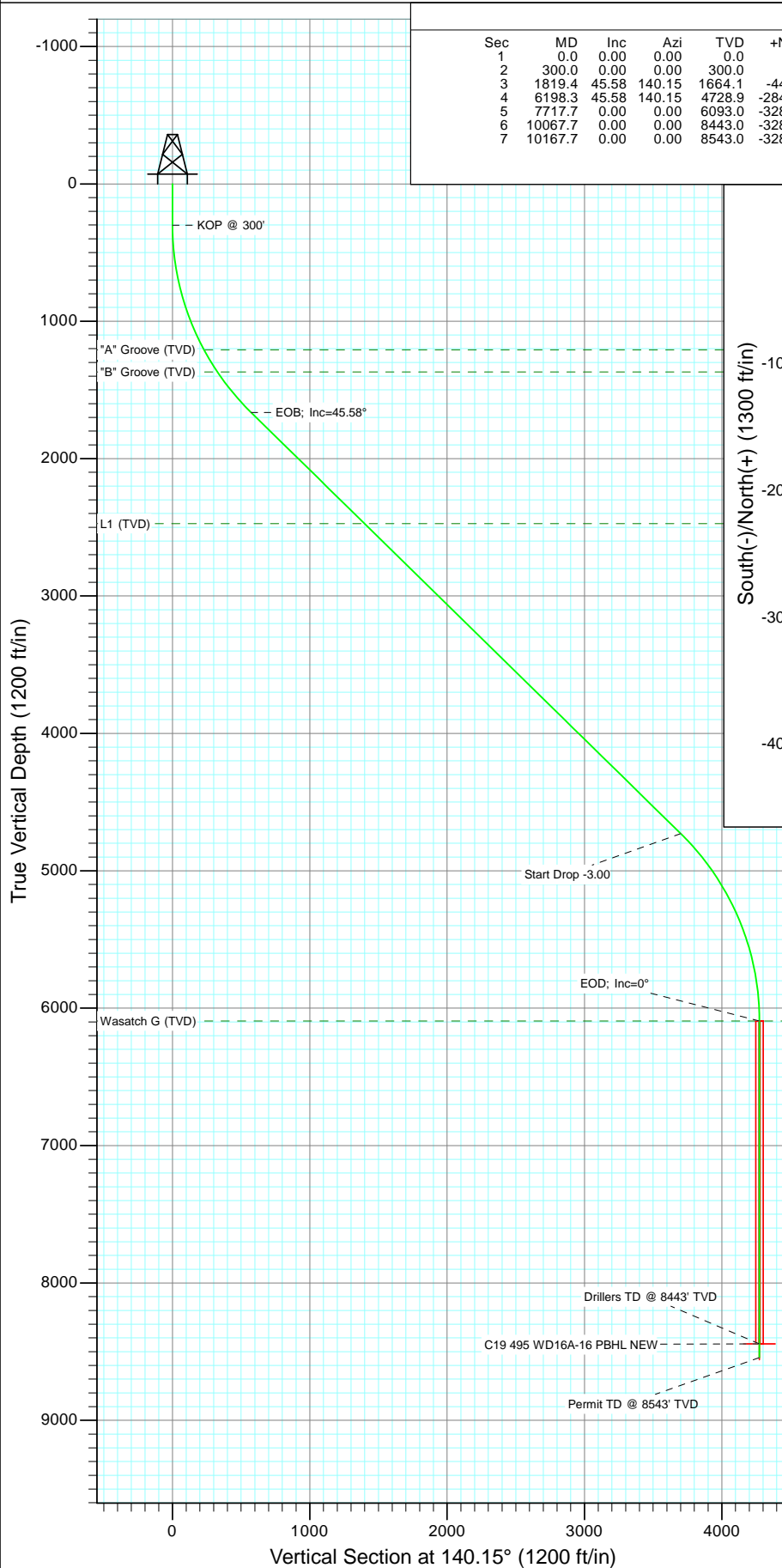




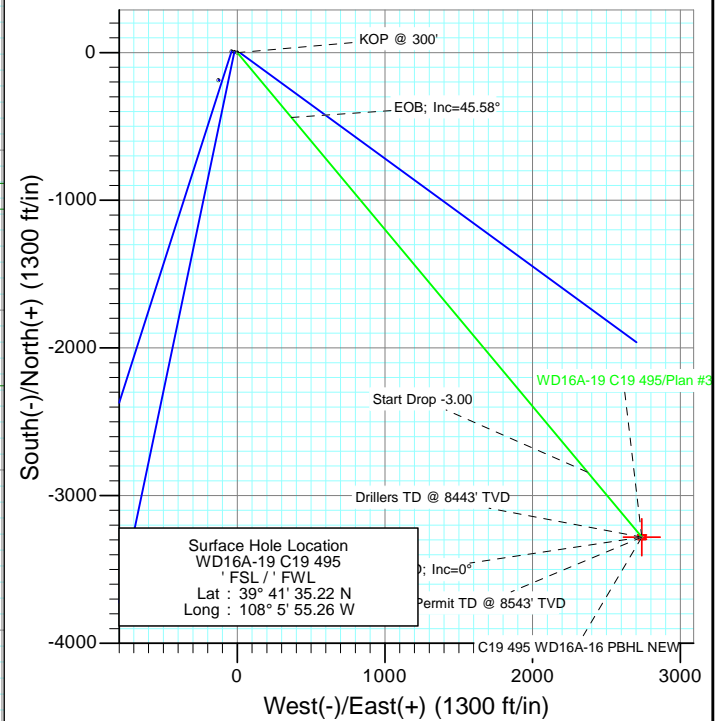
Project: Story Gulch
Site: C19 495
Well: WD16A-19 C19 495
Wellbore: DD
Design: Plan #3



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	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1819.4	45.58	140.15	1664.1	-440.0	367.3	3.00	140.15	573.2	
4	6198.3	45.58	140.15	4728.9	-2841.2	2371.4	0.00	0.00	3700.8	
5	7717.7	0.00	0.00	6093.0	-3281.2	2738.6	3.00	180.00	4274.0	
6	10067.7	0.00	0.00	8443.0	-3281.2	2738.6	0.00	0.00	4274.0	
7	10167.7	0.00	0.00	8543.0	-3281.2	2738.6	0.00	0.00	4274.0	

C19 495 WD16A-16 PBHL NEW



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1208.0	1246.2	"A" Groove (TVD)
1368.0	1433.4	"B" Groove (TVD)
2473.0	2975.1	L1 (TVD)
6093.0	7717.7	Wasatch G (TVD)



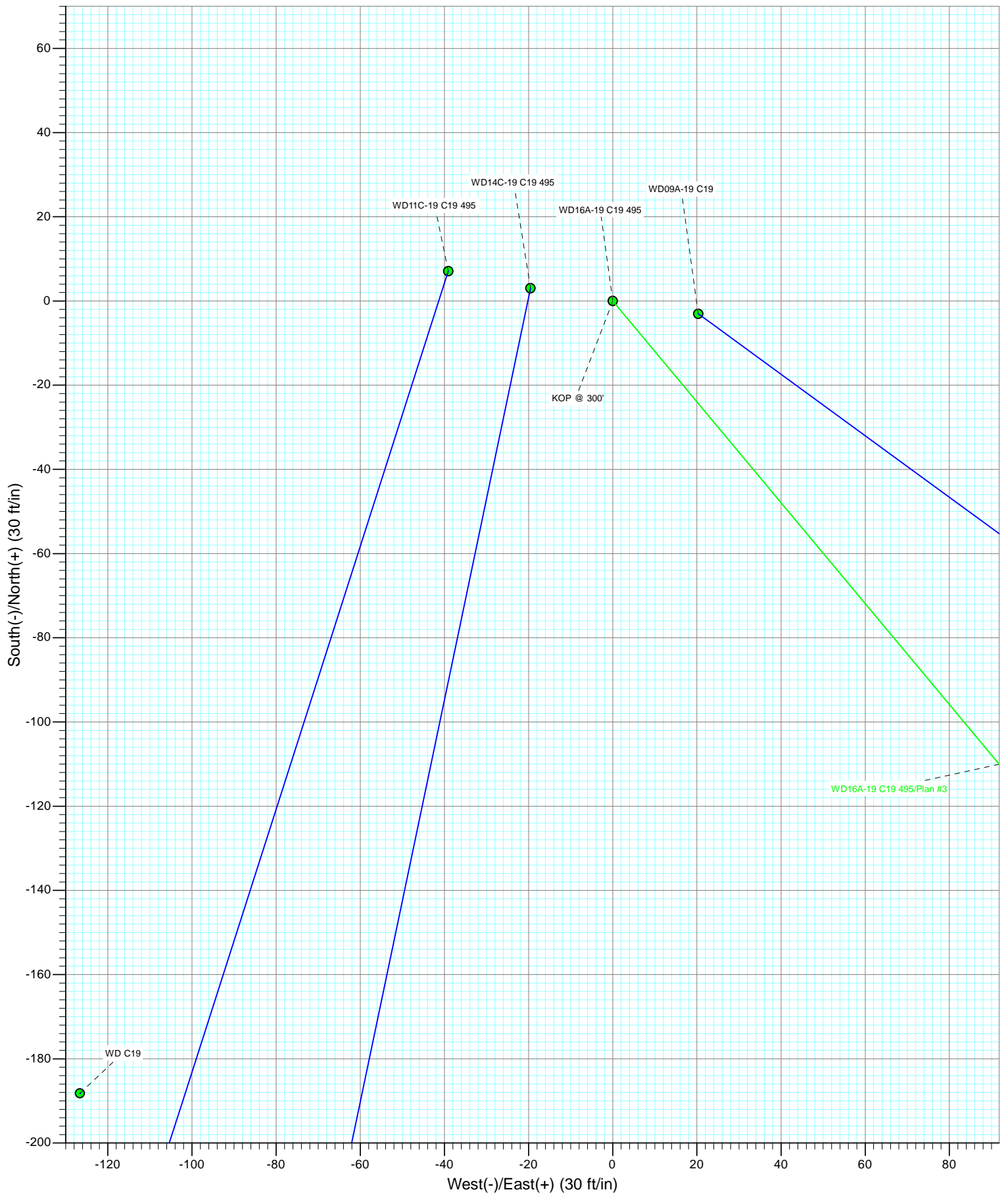
Azimuths to True North
Magnetic North: 10.42°

Magnetic Field
Strength: 52321.0snT
Dip Angle: 65.88°
Date: 7/5/2011
Model: IGRF2010

Plan #3 WD16A-19 C19 495 15x00; LR KBE @ 8153.0ft (Original Well Elev) GL @ 8131.0 North American Datum 1983 Well WD16A-19 C19 495, True North							
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD	
Target	C19 495 WD16A-16 PBHL NEW	140.15	Slot	0.0	0.0	0.0	
Name	C19 495 WD16A-16 PBHL NEW	TVD 8443.0	+N/-S -3281.2	+E/-W 2738.6	Latitude 39° 41' 27.9 N	Longitude 108° 5' 20.23 W	



Project: Story Gulch
Site: C19 495
Well: WD16A-19 C19 495
Wellbore: DD
Design: Plan #3



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WD16A-19 C19 495
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8153.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8153.0ft (Original Well Elev)
Site:	C19 495	North Reference:	True
Well:	WD16A-19 C19 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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		C19 495			
Site Position:		Northing:	1,687,624.39 ft	Latitude:	39° 41' 33.36 N
From:	Lat/Long	Easting:	2,268,676.50 ft	Longitude:	108° 5' 56.88 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.64 °

Well	WD16A-19 C19 495					
Well Position	+N/-S	0.0 ft	Northing:	1,687,808.88 ft	Latitude:	39° 41' 35.22 N
	+E/-W	0.0 ft	Easting:	2,268,808.46 ft	Longitude:	108° 5' 55.26 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,131.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/5/2011	10.42	65.88	52,321

Design	Plan #3			
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	140.15

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,819.4	45.58	140.15	1,664.1	-440.0	367.3	3.00	3.00	0.00	140.15	
6,198.3	45.58	140.15	4,728.9	-2,841.2	2,371.4	0.00	0.00	0.00	0.00	
7,717.7	0.00	0.00	6,093.0	-3,281.2	2,738.6	3.00	-3.00	0.00	180.00	
10,067.7	0.00	0.00	8,443.0	-3,281.2	2,738.6	0.00	0.00	0.00	0.00	C19 495 WD16A-16 F
10,167.7	0.00	0.00	8,543.0	-3,281.2	2,738.6	0.00	0.00	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WD16A-19 C19 495
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8153.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8153.0ft (Original Well Elev)
Site:	C19 495	North Reference:	True
Well:	WD16A-19 C19 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	3.00	140.15	400.0	-2.0	1.7	2.6	3.00	3.00	
500.0	6.00	140.15	499.6	-8.0	6.7	10.5	3.00	3.00	
600.0	9.00	140.15	598.8	-18.1	15.1	23.5	3.00	3.00	
700.0	12.00	140.15	697.1	-32.0	26.7	41.7	3.00	3.00	
800.0	15.00	140.15	794.3	-50.0	41.7	65.1	3.00	3.00	
900.0	18.00	140.15	890.2	-71.8	59.9	93.5	3.00	3.00	
1,000.0	21.00	140.15	984.4	-97.4	81.3	126.9	3.00	3.00	
1,100.0	24.00	140.15	1,076.8	-126.8	105.8	165.1	3.00	3.00	
1,200.0	27.00	140.15	1,167.1	-159.8	133.4	208.2	3.00	3.00	
1,246.2	28.39	140.15	1,208.0	-176.3	147.2	229.7	3.00	3.00	"A" Groove (TVD)
1,300.0	30.00	140.15	1,254.9	-196.4	164.0	255.9	3.00	3.00	
1,400.0	33.00	140.15	1,340.2	-236.6	197.4	308.1	3.00	3.00	
1,433.4	34.00	140.15	1,368.0	-250.7	209.2	326.5	3.00	3.00	"B" Groove (TVD)
1,500.0	36.00	140.15	1,422.6	-280.0	233.7	364.8	3.00	3.00	
1,600.0	39.00	140.15	1,501.9	-326.8	272.7	425.6	3.00	3.00	
1,700.0	42.00	140.15	1,577.9	-376.6	314.3	490.6	3.00	3.00	
1,800.0	45.00	140.15	1,650.5	-429.5	358.4	559.4	3.00	3.00	
1,819.4	45.58	140.15	1,664.1	-440.0	367.3	573.2	3.00	3.00	EOB; Inc=45.58°
1,900.0	45.58	140.15	1,720.5	-484.2	404.2	630.7	0.00	0.00	
2,000.0	45.58	140.15	1,790.5	-539.1	449.9	702.2	0.00	0.00	
2,100.0	45.58	140.15	1,860.5	-593.9	495.7	773.6	0.00	0.00	
2,200.0	45.58	140.15	1,930.5	-648.7	541.5	845.0	0.00	0.00	
2,300.0	45.58	140.15	2,000.5	-703.6	587.2	916.4	0.00	0.00	
2,400.0	45.58	140.15	2,070.5	-758.4	633.0	987.9	0.00	0.00	
2,500.0	45.58	140.15	2,140.5	-813.2	678.8	1,059.3	0.00	0.00	
2,600.0	45.58	140.15	2,210.5	-868.1	724.5	1,130.7	0.00	0.00	
2,700.0	45.58	140.15	2,280.4	-922.9	770.3	1,202.1	0.00	0.00	
2,800.0	45.58	140.15	2,350.4	-977.8	816.1	1,273.6	0.00	0.00	
2,900.0	45.58	140.15	2,420.4	-1,032.6	861.8	1,345.0	0.00	0.00	
2,975.1	45.58	140.15	2,473.0	-1,073.8	896.2	1,398.6	0.00	0.00	L1 (TVD)
3,000.0	45.58	140.15	2,490.4	-1,087.4	907.6	1,416.4	0.00	0.00	
3,100.0	45.58	140.15	2,560.4	-1,142.3	953.4	1,487.8	0.00	0.00	
3,200.0	45.58	140.15	2,630.4	-1,197.1	999.1	1,559.3	0.00	0.00	
3,300.0	45.58	140.15	2,700.4	-1,251.9	1,044.9	1,630.7	0.00	0.00	
3,400.0	45.58	140.15	2,770.4	-1,306.8	1,090.7	1,702.1	0.00	0.00	
3,500.0	45.58	140.15	2,840.4	-1,361.6	1,136.4	1,773.5	0.00	0.00	
3,600.0	45.58	140.15	2,910.4	-1,416.4	1,182.2	1,845.0	0.00	0.00	
3,700.0	45.58	140.15	2,980.3	-1,471.3	1,228.0	1,916.4	0.00	0.00	
3,800.0	45.58	140.15	3,050.3	-1,526.1	1,273.7	1,987.8	0.00	0.00	
3,900.0	45.58	140.15	3,120.3	-1,580.9	1,319.5	2,059.2	0.00	0.00	
4,000.0	45.58	140.15	3,190.3	-1,635.8	1,365.3	2,130.7	0.00	0.00	
4,100.0	45.58	140.15	3,260.3	-1,690.6	1,411.0	2,202.1	0.00	0.00	
4,200.0	45.58	140.15	3,330.3	-1,745.4	1,456.8	2,273.5	0.00	0.00	
4,300.0	45.58	140.15	3,400.3	-1,800.3	1,502.6	2,344.9	0.00	0.00	
4,400.0	45.58	140.15	3,470.3	-1,855.1	1,548.3	2,416.4	0.00	0.00	
4,500.0	45.58	140.15	3,540.3	-1,909.9	1,594.1	2,487.8	0.00	0.00	
4,600.0	45.58	140.15	3,610.2	-1,964.8	1,639.9	2,559.2	0.00	0.00	
4,700.0	45.58	140.15	3,680.2	-2,019.6	1,685.6	2,630.6	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WD16A-19 C19 495
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8153.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8153.0ft (Original Well Elev)
Site:	C19 495	North Reference:	True
Well:	WD16A-19 C19 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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	45.58	140.15	3,750.2	-2,074.5	1,731.4	2,702.1	0.00	0.00	
4,900.0	45.58	140.15	3,820.2	-2,129.3	1,777.2	2,773.5	0.00	0.00	
5,000.0	45.58	140.15	3,890.2	-2,184.1	1,822.9	2,844.9	0.00	0.00	
5,100.0	45.58	140.15	3,960.2	-2,239.0	1,868.7	2,916.3	0.00	0.00	
5,200.0	45.58	140.15	4,030.2	-2,293.8	1,914.5	2,987.8	0.00	0.00	
5,300.0	45.58	140.15	4,100.2	-2,348.6	1,960.2	3,059.2	0.00	0.00	
5,400.0	45.58	140.15	4,170.2	-2,403.5	2,006.0	3,130.6	0.00	0.00	
5,500.0	45.58	140.15	4,240.1	-2,458.3	2,051.8	3,202.0	0.00	0.00	
5,600.0	45.58	140.15	4,310.1	-2,513.1	2,097.5	3,273.5	0.00	0.00	
5,700.0	45.58	140.15	4,380.1	-2,568.0	2,143.3	3,344.9	0.00	0.00	
5,800.0	45.58	140.15	4,450.1	-2,622.8	2,189.1	3,416.3	0.00	0.00	
5,900.0	45.58	140.15	4,520.1	-2,677.6	2,234.8	3,487.7	0.00	0.00	
6,000.0	45.58	140.15	4,590.1	-2,732.5	2,280.6	3,559.2	0.00	0.00	
6,100.0	45.58	140.15	4,660.1	-2,787.3	2,326.4	3,630.6	0.00	0.00	
6,198.3	45.58	140.15	4,728.9	-2,841.2	2,371.4	3,700.8	0.00	0.00	Start Drop -3.00
6,200.0	45.53	140.15	4,730.1	-2,842.1	2,372.1	3,702.0	3.00	-3.00	
6,300.0	42.53	140.15	4,802.0	-2,895.5	2,416.7	3,771.5	3.00	-3.00	
6,400.0	39.53	140.15	4,877.4	-2,945.9	2,458.7	3,837.1	3.00	-3.00	
6,500.0	36.53	140.15	4,956.1	-2,993.2	2,498.2	3,898.7	3.00	-3.00	
6,600.0	33.53	140.15	5,038.0	-3,037.2	2,535.0	3,956.1	3.00	-3.00	
6,700.0	30.53	140.15	5,122.8	-3,078.0	2,569.0	4,009.2	3.00	-3.00	
6,800.0	27.53	140.15	5,210.2	-3,115.2	2,600.1	4,057.7	3.00	-3.00	
6,900.0	24.53	140.15	5,300.1	-3,148.9	2,628.2	4,101.6	3.00	-3.00	
7,000.0	21.53	140.15	5,392.1	-3,178.9	2,653.2	4,140.7	3.00	-3.00	
7,100.0	18.53	140.15	5,486.0	-3,205.2	2,675.2	4,174.9	3.00	-3.00	
7,200.0	15.53	140.15	5,581.6	-3,227.7	2,693.9	4,204.2	3.00	-3.00	
7,300.0	12.53	140.15	5,678.6	-3,246.3	2,709.5	4,228.5	3.00	-3.00	
7,400.0	9.53	140.15	5,776.8	-3,261.0	2,721.7	4,247.6	3.00	-3.00	
7,500.0	6.53	140.15	5,875.8	-3,271.7	2,730.7	4,261.6	3.00	-3.00	
7,600.0	3.53	140.15	5,975.4	-3,278.5	2,736.3	4,270.3	3.00	-3.00	
7,700.0	0.53	140.15	6,075.3	-3,281.2	2,738.6	4,273.9	3.00	-3.00	
7,717.7	0.00	0.00	6,093.0	-3,281.2	2,738.6	4,274.0	3.00	-3.00	EOD; Inc=0° - Wasatch G (TVD)
7,800.0	0.00	0.00	6,175.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
7,900.0	0.00	0.00	6,275.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,000.0	0.00	0.00	6,375.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,100.0	0.00	0.00	6,475.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,200.0	0.00	0.00	6,575.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,300.0	0.00	0.00	6,675.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,400.0	0.00	0.00	6,775.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,500.0	0.00	0.00	6,875.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,600.0	0.00	0.00	6,975.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,700.0	0.00	0.00	7,075.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,800.0	0.00	0.00	7,175.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
8,900.0	0.00	0.00	7,275.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,000.0	0.00	0.00	7,375.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,100.0	0.00	0.00	7,475.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,200.0	0.00	0.00	7,575.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,300.0	0.00	0.00	7,675.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,400.0	0.00	0.00	7,775.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,500.0	0.00	0.00	7,875.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,600.0	0.00	0.00	7,975.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,700.0	0.00	0.00	8,075.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well WD16A-19 C19 495
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8153.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8153.0ft (Original Well Elev)
Site:	C19 495	North Reference:	True
Well:	WD16A-19 C19 495	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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
9,800.0	0.00	0.00	8,175.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
9,900.0	0.00	0.00	8,275.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
10,000.0	0.00	0.00	8,375.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
10,067.7	0.00	0.00	8,443.0	-3,281.2	2,738.6	4,274.0	0.00	0.00	Drillers TD @ 8443' TVD - C19 495 WD16A-16
10,100.0	0.00	0.00	8,475.3	-3,281.2	2,738.6	4,274.0	0.00	0.00	
10,167.7	0.00	0.00	8,543.0	-3,281.2	2,738.6	4,274.0	0.00	0.00	Permit TD @ 8543' TVD

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
C19 495 WD16A-16 PBI - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	8,443.0	-3,281.2	2,738.6	1,684,450.64	2,271,452.13	39° 41' 2.79 N	108° 5' 20.23 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,246.2	1,208.0	"A" Groove (TVD)		0.00	
1,433.4	1,368.0	"B" Groove (TVD)		0.00	
2,975.1	2,473.0	L1 (TVD)		0.00	
7,717.7	6,093.0	Wasatch G (TVD)		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'
1,819.4	1,664.1	-440.0	367.3	EOB; Inc=45.58°
6,198.3	4,728.9	-2,841.2	2,371.4	Start Drop -3.00
7,717.7	6,093.0	-3,281.2	2,738.6	EOD; Inc=0°
10,067.7	8,443.0	-3,281.2	2,738.6	Drillers TD @ 8443' TVD
10,167.7	8,543.0	-3,281.2	2,738.6	Permit TD @ 8543' TVD