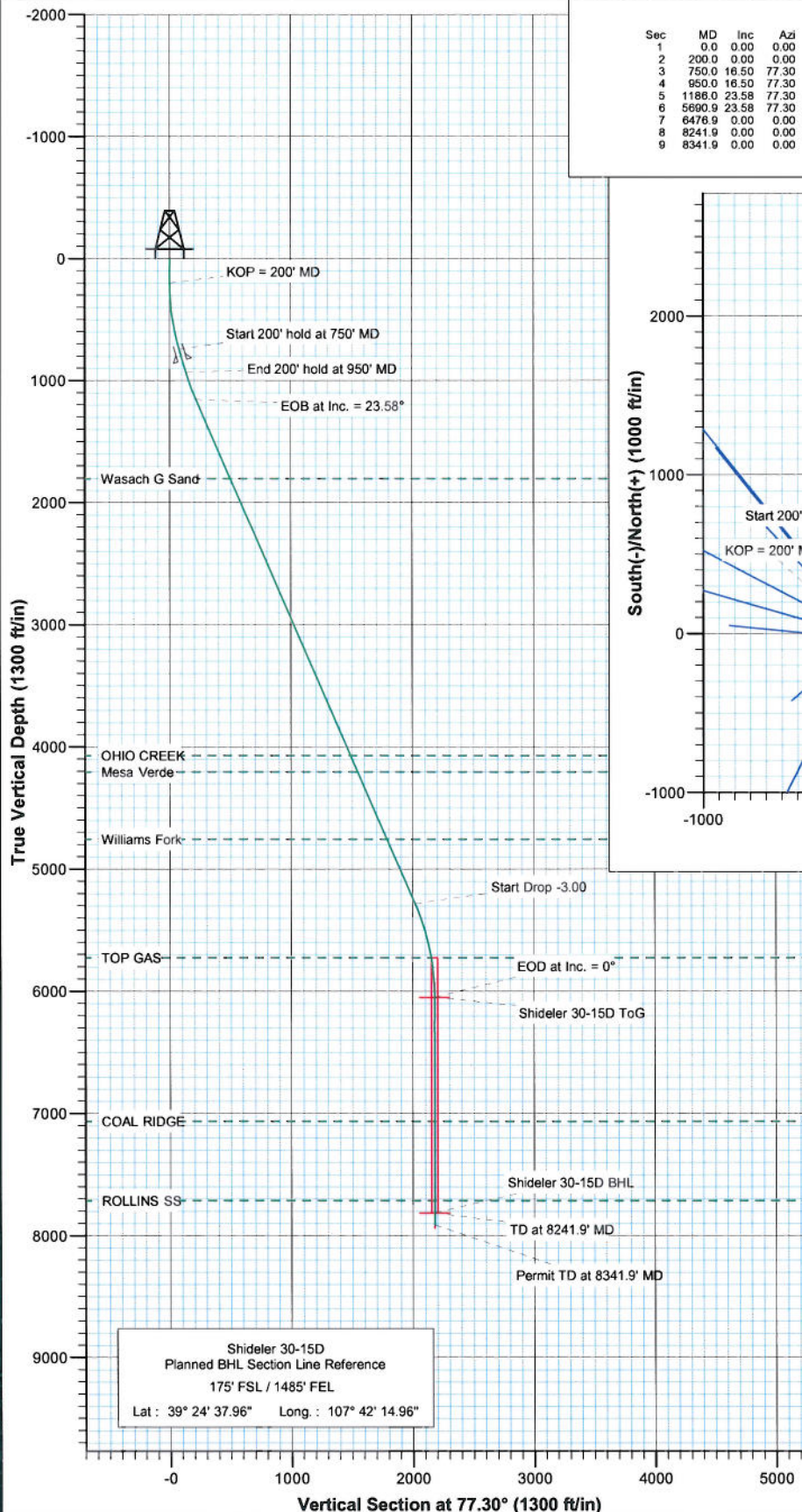
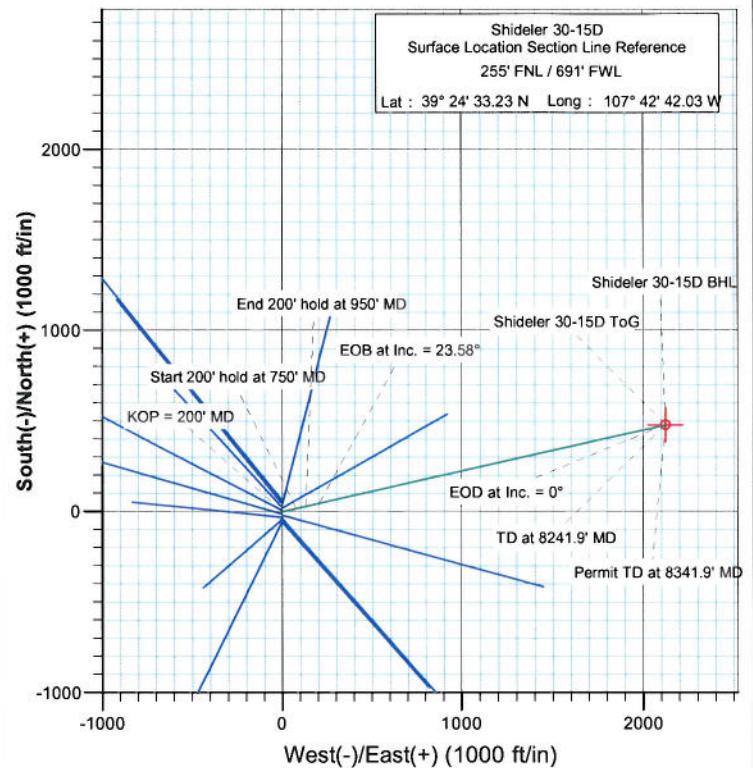




Project: Mamm Creek
Site: C31E Pad (NENW 31-7S-92W)
Well: Shideler 30-15D
Wellbore: DD
Plan: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	D Leg	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	750.0	16.50	77.30	742.4	17.3	76.7	3.00	77.30	78.6	
4	950.0	16.50	77.30	934.2	29.8	132.1	0.00	0.00	135.5	
5	1186.0	23.58	77.30	1155.8	47.5	211.0	3.00	0.01	218.3	
6	5690.9	23.58	77.30	5284.5	443.8	1969.0	0.00	0.00	2018.4	
7	6476.9	0.00	0.00	6048.5	478.7	2124.6	3.00	180.00	2177.8	Shideler 30-15D ToG
8	8241.9	0.00	0.00	7813.5	478.7	2124.6	0.00	0.00	2177.8	
9	8341.9	0.00	0.00	7913.5	478.7	2124.6	0.00	0.00	2177.8	



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1803.5	1892.7	Wasach G Sand
4068.5	4364.1	OHIO CREEK
4203.5	4511.4	Mesa Verde
4753.5	5111.5	Williams Fork
5723.5	6150.3	TOP GAS
7063.5	7491.9	COAL RIDGE
7713.5	8141.9	ROLLINS SS



Azimuths to True North
Magnetic North: 10.44°

Magnetic Field
Strength: 52456.0nT
Dip Angle: 65.78°
Date: 7/7/2009
Model: IGRF200510

DESIGN DETAILS: Plan #1

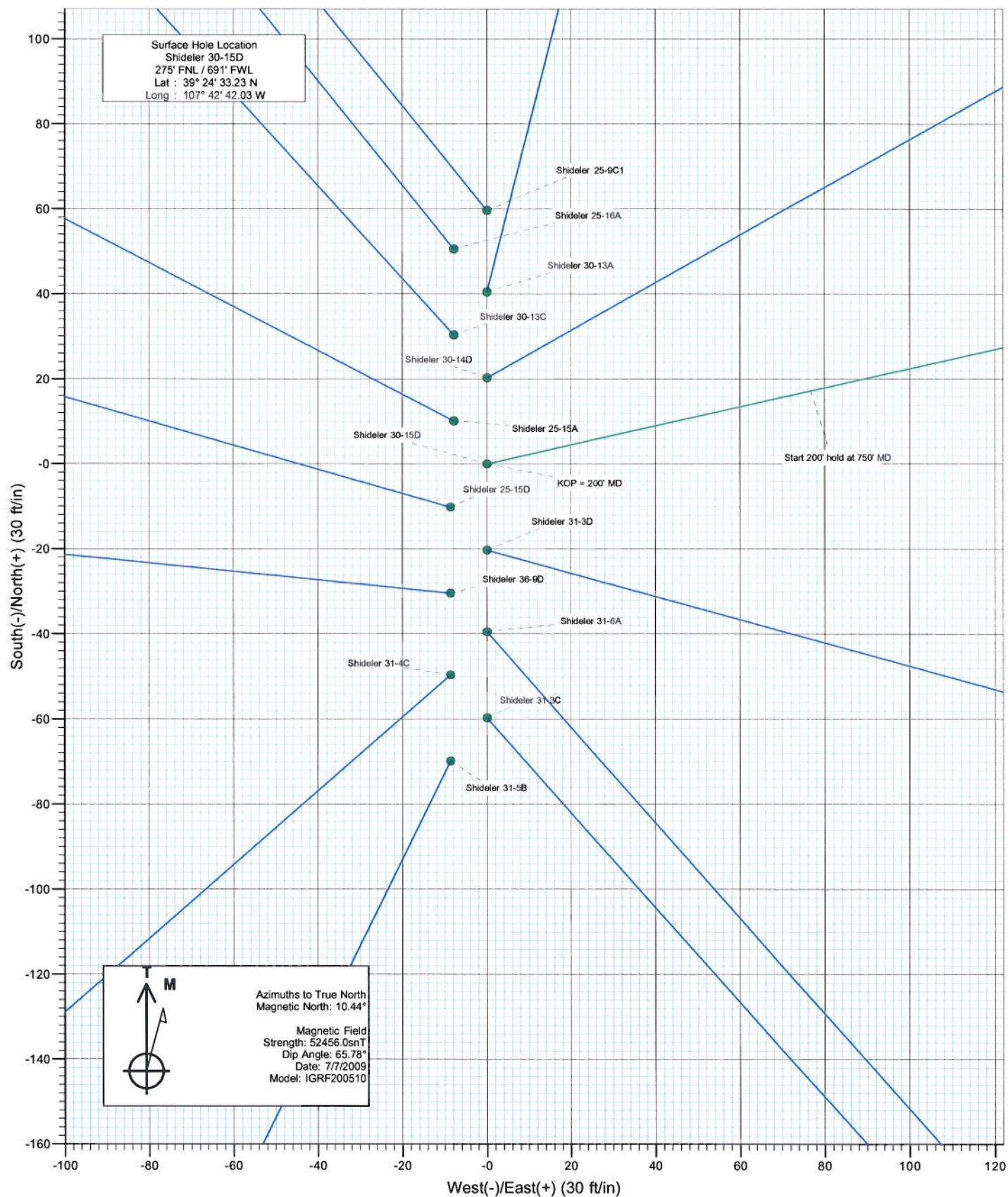
Job# 95xxx: KR

KBE @ 6763.5R (Original Well Elev)

Target	Azimuth	Origin Type	N/S	E/W	From TVD
No Target (Freehand)	77.30	Slot	0.0	0.0	0.0



Project: Mamm Creek
Site: C31E Pad (NENW 31-7S-92W)
Well: Shideler 30-15D
Wellbore: DD
Design: Plan #1



Planning Report

Database:	US EDM 2003.21 Multi User Db	Local Co-ordinate Reference:	Well Shideler 30-15D
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6763.5ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 6763.5ft (Original Well Elev)
Site:	C31E Pad (NENW 31-7S-92W)	North Reference:	True
Well:	Shideler 30-15D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		C31E Pad (NENW 31-7S-92W)			
Site Position:		Northing:	1,581,611.55 ft	Latitude:	39° 24' 33.82 N
From:	Lat/Long	Easting:	2,375,162.79 ft	Longitude:	107° 42' 42.03 W
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.39 °

Well	Shideler 30-15D					
Well Position	+N/-S	0.0 ft	Northing:	1,581,551.87 ft	Latitude:	39° 24' 33.23 N
	+E/-W	0.0 ft	Easting:	2,375,161.33 ft	Longitude:	107° 42' 42.03 W
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,750.0 ft	

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/7/2009	10.44	65.78	52,456

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	77.30

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	
750.0	16.50	77.30	742.4	17.3	76.7	3.00	3.00	0.00	77.30	
950.0	16.50	77.30	934.2	29.8	132.1	0.00	0.00	0.00	0.00	
1,186.0	23.58	77.30	1,155.8	47.5	211.0	3.00	3.00	0.00	0.01	
5,690.9	23.58	77.30	5,284.5	443.6	1,969.0	0.00	0.00	0.00	0.00	
6,476.9	0.00	0.00	6,048.5	478.7	2,124.6	3.00	-3.00	0.00	180.00	Shideler 30-15D ToG
8,241.9	0.00	0.00	7,813.5	478.7	2,124.6	0.00	0.00	0.00	0.00	
8,341.9	0.00	0.00	7,913.5	478.7	2,124.6	0.00	0.00	0.00	0.00	

Planning Report

Database:	US EDM 2003.21 Multi User Db	Local Co-ordinate Reference:	Well Shideler 30-15D
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6763.5ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 6763.5ft (Original Well Elev)
Site:	C31E Pad (NENW 31-7S-92W)	North Reference:	True
Well:	Shideler 30-15D	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' MD
300.0	3.00	77.30	300.0	0.6	2.6	2.6	3.00	3.00	
400.0	6.00	77.30	399.6	2.3	10.2	10.5	3.00	3.00	
500.0	9.00	77.30	498.8	5.2	22.9	23.5	3.00	3.00	
600.0	12.00	77.30	597.1	9.2	40.7	41.7	3.00	3.00	
700.0	15.00	77.30	694.3	14.3	63.5	65.1	3.00	3.00	
750.0	16.50	77.30	742.4	17.3	76.7	78.6	3.00	3.00	Start 200' hold at 750' MD
800.0	16.50	77.30	790.4	20.4	90.6	92.8	0.00	0.00	
850.0	16.50	77.30	838.3	23.5	104.4	107.1	0.00	0.00	Surface Casing
900.0	16.50	77.30	886.3	26.7	118.3	121.3	0.00	0.00	
950.0	16.50	77.30	934.2	29.8	132.1	135.5	0.00	0.00	End 200' hold at 950' MD
1,000.0	18.00	77.30	981.9	33.0	146.6	150.3	3.00	3.00	
1,100.0	21.00	77.30	1,076.2	40.4	179.2	183.7	3.00	3.00	
1,186.0	23.58	77.30	1,155.8	47.5	211.0	216.3	3.00	3.00	EOB at Inc. = 23.58°
1,200.0	23.58	77.30	1,168.6	48.8	216.4	221.9	0.00	0.00	
1,300.0	23.58	77.30	1,260.2	57.6	255.5	261.9	0.00	0.00	
1,400.0	23.58	77.30	1,351.9	66.4	294.5	301.9	0.00	0.00	
1,500.0	23.58	77.30	1,443.5	75.2	333.5	341.9	0.00	0.00	
1,600.0	23.58	77.30	1,535.2	83.9	372.5	381.9	0.00	0.00	
1,700.0	23.58	77.30	1,626.8	92.7	411.6	421.9	0.00	0.00	
1,800.0	23.58	77.30	1,718.5	101.5	450.6	461.9	0.00	0.00	
1,892.7	23.58	77.30	1,803.5	109.7	486.8	499.0	0.00	0.00	Wasach G Sand
1,900.0	23.58	77.30	1,810.1	110.3	489.6	501.9	0.00	0.00	
2,000.0	23.58	77.30	1,901.8	119.1	528.6	541.9	0.00	0.00	
2,100.0	23.58	77.30	1,993.4	127.9	567.7	581.9	0.00	0.00	
2,200.0	23.58	77.30	2,085.1	136.7	606.7	621.9	0.00	0.00	
2,300.0	23.58	77.30	2,176.7	145.5	645.7	661.9	0.00	0.00	
2,400.0	23.58	77.30	2,268.4	154.3	684.7	701.9	0.00	0.00	
2,500.0	23.58	77.30	2,360.0	163.1	723.8	741.9	0.00	0.00	
2,600.0	23.58	77.30	2,451.7	171.9	762.8	781.9	0.00	0.00	
2,700.0	23.58	77.30	2,543.3	180.7	801.8	821.9	0.00	0.00	
2,800.0	23.58	77.30	2,635.0	189.4	840.8	861.9	0.00	0.00	
2,900.0	23.58	77.30	2,726.6	198.2	879.9	901.9	0.00	0.00	
3,000.0	23.58	77.30	2,818.3	207.0	918.9	941.9	0.00	0.00	
3,100.0	23.58	77.30	2,909.9	215.8	957.9	981.9	0.00	0.00	
3,200.0	23.58	77.30	3,001.6	224.6	996.9	1,021.9	0.00	0.00	
3,300.0	23.58	77.30	3,093.2	233.4	1,036.0	1,061.9	0.00	0.00	
3,400.0	23.58	77.30	3,184.9	242.2	1,075.0	1,101.9	0.00	0.00	
3,500.0	23.58	77.30	3,276.6	251.0	1,114.0	1,141.9	0.00	0.00	
3,600.0	23.58	77.30	3,368.2	259.8	1,153.0	1,181.9	0.00	0.00	
3,700.0	23.58	77.30	3,459.9	268.6	1,192.1	1,221.9	0.00	0.00	
3,800.0	23.58	77.30	3,551.5	277.4	1,231.1	1,261.9	0.00	0.00	
3,900.0	23.58	77.30	3,643.2	286.2	1,270.1	1,301.9	0.00	0.00	
4,000.0	23.58	77.30	3,734.8	294.9	1,309.1	1,342.0	0.00	0.00	
4,100.0	23.58	77.30	3,826.5	303.7	1,348.2	1,382.0	0.00	0.00	
4,200.0	23.58	77.30	3,918.1	312.5	1,387.2	1,422.0	0.00	0.00	
4,300.0	23.58	77.30	4,009.8	321.3	1,426.2	1,462.0	0.00	0.00	
4,364.1	23.58	77.30	4,068.5	327.0	1,451.2	1,487.6	0.00	0.00	OHIO CREEK
4,400.0	23.58	77.30	4,101.4	330.1	1,465.2	1,502.0	0.00	0.00	
4,500.0	23.58	77.30	4,193.1	338.9	1,504.3	1,542.0	0.00	0.00	

Planning Report

Database:	US EDM 2003.21 Multi User Db	Local Co-ordinate Reference:	Well Shideler 30-15D
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6763.5ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 6763.5ft (Original Well Elev)
Site:	C31E Pad (NENW 31-7S-92W)	North Reference:	True
Well:	Shideler 30-15D	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
4,511.4	23.58	77.30	4,203.5	339.9	1,508.7	1,546.5	0.00	0.00	Mesa Verde
4,600.0	23.58	77.30	4,284.7	347.7	1,543.3	1,582.0	0.00	0.00	
4,700.0	23.58	77.30	4,376.4	356.5	1,582.3	1,622.0	0.00	0.00	
4,800.0	23.58	77.30	4,468.0	365.3	1,621.3	1,662.0	0.00	0.00	
4,900.0	23.58	77.30	4,559.7	374.1	1,660.4	1,702.0	0.00	0.00	
5,000.0	23.58	77.30	4,651.3	382.9	1,699.4	1,742.0	0.00	0.00	
5,100.0	23.58	77.30	4,743.0	391.7	1,738.4	1,782.0	0.00	0.00	
5,111.5	23.58	77.30	4,753.5	392.7	1,742.9	1,786.6	0.00	0.00	Williams Fork
5,200.0	23.58	77.30	4,834.6	400.5	1,777.4	1,822.0	0.00	0.00	
5,300.0	23.58	77.30	4,926.3	409.2	1,816.5	1,862.0	0.00	0.00	
5,400.0	23.58	77.30	5,017.9	418.0	1,855.5	1,902.0	0.00	0.00	
5,500.0	23.58	77.30	5,109.6	426.8	1,894.5	1,942.0	0.00	0.00	
5,600.0	23.58	77.30	5,201.2	435.6	1,933.5	1,982.0	0.00	0.00	
5,690.9	23.58	77.30	5,284.5	443.6	1,969.0	2,018.4	0.00	0.00	Start Drop -3.00
5,700.0	23.31	77.30	5,292.9	444.4	1,972.5	2,022.0	3.00	-3.00	
5,800.0	20.31	77.30	5,385.7	452.6	2,008.8	2,059.1	3.00	-3.00	
5,900.0	17.31	77.30	5,480.3	459.7	2,040.2	2,091.4	3.00	-3.00	
6,000.0	14.31	77.30	5,576.6	465.6	2,066.8	2,118.6	3.00	-3.00	
6,100.0	11.31	77.30	5,674.1	470.5	2,088.4	2,140.8	3.00	-3.00	
6,150.3	9.80	77.30	5,723.5	472.5	2,097.4	2,150.0	3.00	-3.00	TOP GAS
6,200.0	8.31	77.30	5,772.6	474.3	2,105.0	2,157.8	3.00	-3.00	
6,300.0	5.31	77.30	5,871.9	476.9	2,116.6	2,169.6	3.00	-3.00	
6,400.0	2.31	77.30	5,971.6	478.3	2,123.1	2,176.3	3.00	-3.00	
6,476.9	0.00	0.00	6,048.5	478.7	2,124.6	2,177.8	3.00	-3.00	EOD at Inc. = 0° - Shideler 30-15D ToG
6,500.0	0.00	0.00	6,071.6	478.7	2,124.6	2,177.8	0.00	0.00	
6,600.0	0.00	0.00	6,171.6	478.7	2,124.6	2,177.8	0.00	0.00	
6,700.0	0.00	0.00	6,271.6	478.7	2,124.6	2,177.8	0.00	0.00	
6,800.0	0.00	0.00	6,371.6	478.7	2,124.6	2,177.8	0.00	0.00	
6,900.0	0.00	0.00	6,471.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,000.0	0.00	0.00	6,571.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,100.0	0.00	0.00	6,671.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,200.0	0.00	0.00	6,771.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,300.0	0.00	0.00	6,871.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,400.0	0.00	0.00	6,971.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,491.9	0.00	0.00	7,063.5	478.7	2,124.6	2,177.8	0.00	0.00	COAL RIDGE
7,500.0	0.00	0.00	7,071.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,600.0	0.00	0.00	7,171.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,700.0	0.00	0.00	7,271.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,800.0	0.00	0.00	7,371.6	478.7	2,124.6	2,177.8	0.00	0.00	
7,900.0	0.00	0.00	7,471.6	478.7	2,124.6	2,177.8	0.00	0.00	
8,000.0	0.00	0.00	7,571.6	478.7	2,124.6	2,177.8	0.00	0.00	
8,100.0	0.00	0.00	7,671.6	478.7	2,124.6	2,177.8	0.00	0.00	
8,141.9	0.00	0.00	7,713.5	478.7	2,124.6	2,177.8	0.00	0.00	ROLLINS SS
8,200.0	0.00	0.00	7,771.6	478.7	2,124.6	2,177.8	0.00	0.00	
8,241.9	0.00	0.00	7,813.5	478.7	2,124.6	2,177.8	0.00	0.00	TD at 8241.9' MD - Shideler 30-15D BHL
8,300.0	0.00	0.00	7,871.6	478.7	2,124.6	2,177.8	0.00	0.00	
8,341.9	0.00	0.00	7,913.5	478.7	2,124.6	2,177.8	0.00	0.00	Permit TD at 8341.9' MD

Planning Report

Database:	US EDM 2003.21 Multi User Db	Local Co-ordinate Reference:	Well Shideler 30-15D
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 6763.5ft (Original Well Elev)
Project:	Mamm Creek	MD Reference:	KBE @ 6763.5ft (Original Well Elev)
Site:	C31E Pad (NENW 31-7S-92W)	North Reference:	True
Well:	Shideler 30-15D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)		
Shideler 30-15D BHL	0.00	0.00	7,813.5	478.7	2,124.6	1,581,978.66	2,377,296.93	39° 24' 37.96 N	107° 42' 14.96 W
- plan hits target center									
- Circle (radius 25.0)									
Shideler 30-15D ToG	0.00	0.00	6,048.5	478.7	2,124.6	1,581,978.66	2,377,296.93	39° 24' 37.96 N	107° 42' 14.96 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)	Name		(in)	(in)
850.0	838.3	Surface Casing		5.500	6.000

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
1,892.7	1,803.5	Wasach G Sand			
4,364.1	4,068.5	OHIO CREEK			
4,511.4	4,203.5	Mesa Verde			
5,111.5	4,753.5	Williams Fork			
6,150.3	5,723.5	TOP GAS			
7,491.9	7,063.5	COAL RIDGE			
8,141.9	7,713.5	ROLLINS SS			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
200.0	200.0	0.0	0.0	KOP = 200' MD	
750.0	742.4	17.3	76.7	Start 200' hold at 750' MD	
950.0	934.2	29.8	132.1	End 200' hold at 950' MD	
1,186.0	1,155.8	47.5	211.0	EOB at Inc. = 23.58°	
5,690.9	5,284.5	443.6	1,969.0	Start Drop -3.00	
6,476.9	6,048.5	478.7	2,124.6	EOD at Inc. = 0°	
8,241.9	7,813.5	478.7	2,124.6	TD at 8241.9' MD	
8,341.9	7,913.5	478.7	2,124.6	Permit TD at 8341.9' MD	