

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8508B-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8508B-21 N22 496	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		S22-T4S-R96W (N22 496) (Column Pattern)			
Site Position:		Northing:	1,685,048.56 ft	Latitude:	39° 41' 3.24 N
From:	Lat/Long	Easting:	2,252,316.79 ft	Longitude:	108° 9' 25.11 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.68 °

Well	8508B-21 N22 496					
Well Position	+N/-S	0.0 ft	Northing:	1,685,019.14 ft	Latitude:	39° 41' 2.94 N
	+E/-W	0.0 ft	Easting:	2,252,294.47 ft	Longitude:	108° 9' 25.38 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,569.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/2/2010	10.52	65.88	52,372

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	303.71	

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	
1,324.0	33.72	304.07	1,260.2	180.0	-266.2	3.00	3.00	0.00	304.07	
7,325.2	33.72	304.07	6,251.8	2,046.2	-3,025.8	0.00	0.00	0.00	0.00	
8,449.2	0.00	0.00	7,312.0	2,226.2	-3,292.0	3.00	-3.00	0.00	180.00	8508B-21 N22 496 TC
8,574.6	0.31	239.51	7,437.5	2,226.0	-3,292.3	0.25	0.25	-96.04	239.51	
12,109.2	0.31	239.51	10,972.0	2,216.2	-3,309.0	0.00	0.00	0.00	0.00	8508B-21 N22 496 PE
13,359.2	0.31	239.51	12,222.0	2,212.7	-3,314.9	0.00	0.00	0.00	0.00	
13,609.2	0.31	239.51	12,472.0	2,212.0	-3,316.0	0.00	0.00	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8508B-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8508B-21 N22 496	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'
272.0	2.16	304.07	272.0	0.8	-1.1	1.4	3.00	3.00	Para Creek (TVD)
300.0	3.00	304.07	300.0	1.5	-2.2	2.6	3.00	3.00	
400.0	6.00	304.07	399.6	5.9	-8.7	10.5	3.00	3.00	
500.0	9.00	304.07	498.8	13.2	-19.5	23.5	3.00	3.00	
574.4	11.23	304.07	572.0	20.5	-30.3	36.6	3.00	3.00	Mahog Bench (TVD)
600.0	12.00	304.07	597.1	23.4	-34.6	41.7	3.00	3.00	
635.8	13.07	304.07	632.0	27.7	-41.0	49.5	3.00	3.00	Base B Groove (TVD)
700.0	15.00	304.07	694.3	36.5	-53.9	65.1	3.00	3.00	
800.0	18.00	304.07	790.2	52.4	-77.4	93.5	3.00	3.00	
900.0	21.00	304.07	884.4	71.1	-105.1	126.8	3.00	3.00	
1,000.0	24.00	304.07	976.8	92.5	-136.8	165.1	3.00	3.00	
1,100.0	27.00	304.07	1,067.1	116.6	-172.4	208.2	3.00	3.00	
1,200.0	30.00	304.07	1,154.9	143.3	-212.0	255.9	3.00	3.00	
1,300.0	33.00	304.07	1,240.2	172.6	-255.2	308.1	3.00	3.00	
1,324.0	33.72	304.07	1,260.2	180.0	-266.2	321.3	3.00	3.00	EOB @ Inc. = 33.72°
1,400.0	33.72	304.07	1,323.4	203.6	-301.1	363.5	0.00	0.00	
1,500.0	33.72	304.07	1,406.6	234.7	-347.1	419.0	0.00	0.00	
1,600.0	33.72	304.07	1,489.8	265.8	-393.1	474.5	0.00	0.00	
1,700.0	33.72	304.07	1,573.0	296.9	-439.1	530.0	0.00	0.00	
1,800.0	33.72	304.07	1,656.1	328.0	-485.1	585.5	0.00	0.00	
1,900.0	33.72	304.07	1,739.3	359.1	-531.0	641.1	0.00	0.00	
2,000.0	33.72	304.07	1,822.5	390.2	-577.0	696.6	0.00	0.00	
2,100.0	33.72	304.07	1,905.7	421.3	-623.0	752.1	0.00	0.00	
2,200.0	33.72	304.07	1,988.9	452.4	-669.0	807.6	0.00	0.00	
2,300.0	33.72	304.07	2,072.0	483.5	-715.0	863.1	0.00	0.00	
2,400.0	33.72	304.07	2,155.2	514.6	-761.0	918.6	0.00	0.00	
2,500.0	33.72	304.07	2,238.4	545.7	-807.0	974.1	0.00	0.00	
2,600.0	33.72	304.07	2,321.6	576.8	-852.9	1,029.6	0.00	0.00	
2,700.0	33.72	304.07	2,404.7	607.9	-898.9	1,085.2	0.00	0.00	
2,800.0	33.72	304.07	2,487.9	639.0	-944.9	1,140.7	0.00	0.00	
2,900.0	33.72	304.07	2,571.1	670.1	-990.9	1,196.2	0.00	0.00	
3,000.0	33.72	304.07	2,654.3	701.2	-1,036.9	1,251.7	0.00	0.00	
3,100.0	33.72	304.07	2,737.4	732.3	-1,082.9	1,307.2	0.00	0.00	
3,200.0	33.72	304.07	2,820.6	763.4	-1,128.9	1,362.7	0.00	0.00	
3,300.0	33.72	304.07	2,903.8	794.5	-1,174.8	1,418.2	0.00	0.00	
3,400.0	33.72	304.07	2,987.0	825.6	-1,220.8	1,473.7	0.00	0.00	
3,500.0	33.72	304.07	3,070.1	856.7	-1,266.8	1,529.3	0.00	0.00	
3,600.0	33.72	304.07	3,153.3	887.8	-1,312.8	1,584.8	0.00	0.00	
3,700.0	33.72	304.07	3,236.5	918.9	-1,358.8	1,640.3	0.00	0.00	
3,800.0	33.72	304.07	3,319.7	950.0	-1,404.8	1,695.8	0.00	0.00	
3,900.0	33.72	304.07	3,402.8	981.1	-1,450.8	1,751.3	0.00	0.00	
4,000.0	33.72	304.07	3,486.0	1,012.2	-1,496.7	1,806.8	0.00	0.00	
4,100.0	33.72	304.07	3,569.2	1,043.3	-1,542.7	1,862.3	0.00	0.00	
4,200.0	33.72	304.07	3,652.4	1,074.4	-1,588.7	1,917.8	0.00	0.00	
4,300.0	33.72	304.07	3,735.6	1,105.5	-1,634.7	1,973.3	0.00	0.00	
4,400.0	33.72	304.07	3,818.7	1,136.6	-1,680.7	2,028.9	0.00	0.00	
4,500.0	33.72	304.07	3,901.9	1,167.7	-1,726.7	2,084.4	0.00	0.00	
4,600.0	33.72	304.07	3,985.1	1,198.7	-1,772.7	2,139.9	0.00	0.00	
4,700.0	33.72	304.07	4,068.3	1,229.8	-1,818.6	2,195.4	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8508B-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8508B-21 N22 496	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	33.72	304.07	4,151.4	1,260.9	-1,864.6	2,250.9	0.00	0.00	
4,824.7	33.72	304.07	4,172.0	1,268.6	-1,876.0	2,264.6	0.00	0.00	Was G (TVD)
4,900.0	33.72	304.07	4,234.6	1,292.0	-1,910.6	2,306.4	0.00	0.00	
5,000.0	33.72	304.07	4,317.8	1,323.1	-1,956.6	2,361.9	0.00	0.00	
5,100.0	33.72	304.07	4,401.0	1,354.2	-2,002.6	2,417.4	0.00	0.00	
5,200.0	33.72	304.07	4,484.1	1,385.3	-2,048.6	2,473.0	0.00	0.00	
5,300.0	33.72	304.07	4,567.3	1,416.4	-2,094.6	2,528.5	0.00	0.00	
5,400.0	33.72	304.07	4,650.5	1,447.5	-2,140.5	2,584.0	0.00	0.00	
5,500.0	33.72	304.07	4,733.7	1,478.6	-2,186.5	2,639.5	0.00	0.00	
5,600.0	33.72	304.07	4,816.8	1,509.7	-2,232.5	2,695.0	0.00	0.00	
5,700.0	33.72	304.07	4,900.0	1,540.8	-2,278.5	2,750.5	0.00	0.00	
5,800.0	33.72	304.07	4,983.2	1,571.9	-2,324.5	2,806.0	0.00	0.00	
5,900.0	33.72	304.07	5,066.4	1,603.0	-2,370.5	2,861.5	0.00	0.00	
6,000.0	33.72	304.07	5,149.5	1,634.1	-2,416.4	2,917.1	0.00	0.00	
6,100.0	33.72	304.07	5,232.7	1,665.2	-2,462.4	2,972.6	0.00	0.00	
6,200.0	33.72	304.07	5,315.9	1,696.3	-2,508.4	3,028.1	0.00	0.00	
6,300.0	33.72	304.07	5,399.1	1,727.4	-2,554.4	3,083.6	0.00	0.00	
6,400.0	33.72	304.07	5,482.3	1,758.5	-2,600.4	3,139.1	0.00	0.00	
6,500.0	33.72	304.07	5,565.4	1,789.6	-2,646.4	3,194.6	0.00	0.00	
6,600.0	33.72	304.07	5,648.6	1,820.7	-2,692.4	3,250.1	0.00	0.00	
6,700.0	33.72	304.07	5,731.8	1,851.8	-2,738.3	3,305.6	0.00	0.00	
6,800.0	33.72	304.07	5,815.0	1,882.9	-2,784.3	3,361.2	0.00	0.00	
6,900.0	33.72	304.07	5,898.1	1,914.0	-2,830.3	3,416.7	0.00	0.00	
7,000.0	33.72	304.07	5,981.3	1,945.1	-2,876.3	3,472.2	0.00	0.00	
7,100.0	33.72	304.07	6,064.5	1,976.2	-2,922.3	3,527.7	0.00	0.00	
7,200.0	33.72	304.07	6,147.7	2,007.3	-2,968.3	3,583.2	0.00	0.00	
7,300.0	33.72	304.07	6,230.8	2,038.4	-3,014.3	3,638.7	0.00	0.00	
7,325.2	33.72	304.07	6,251.8	2,046.2	-3,025.8	3,652.7	0.00	0.00	Start Drop -3.00
7,400.0	31.48	304.07	6,314.8	2,068.8	-3,059.2	3,693.0	3.00	-3.00	
7,500.0	28.48	304.07	6,401.4	2,096.8	-3,100.6	3,743.0	3.00	-3.00	
7,600.0	25.48	304.07	6,490.5	2,122.2	-3,138.2	3,788.3	3.00	-3.00	
7,700.0	22.48	304.07	6,581.9	2,144.9	-3,171.8	3,828.9	3.00	-3.00	
7,800.0	19.48	304.07	6,675.3	2,165.0	-3,201.5	3,864.7	3.00	-3.00	
7,900.0	16.48	304.07	6,770.4	2,182.3	-3,227.0	3,895.6	3.00	-3.00	
8,000.0	13.48	304.07	6,867.0	2,196.8	-3,248.4	3,921.4	3.00	-3.00	
8,100.0	10.48	304.07	6,964.8	2,208.4	-3,265.6	3,942.2	3.00	-3.00	
8,200.0	7.48	304.07	7,063.5	2,217.1	-3,278.6	3,957.8	3.00	-3.00	
8,300.0	4.48	304.07	7,163.0	2,222.9	-3,287.2	3,968.2	3.00	-3.00	
8,400.0	1.48	304.07	7,262.8	2,225.8	-3,291.5	3,973.4	3.00	-3.00	
8,409.2	1.20	304.07	7,272.0	2,226.0	-3,291.7	3,973.6	3.00	-3.00	WF (TVD)
8,449.2	0.00	0.00	7,312.0	2,226.2	-3,292.0	3,974.0	3.00	-3.00	EOD @ Inc. = 0° - TOG (TVD) - 8508B-21 N22
8,500.0	0.13	239.51	7,362.8	2,226.2	-3,292.0	3,974.0	0.25	0.25	
8,574.6	0.31	239.51	7,437.5	2,226.0	-3,292.3	3,974.1	0.25	0.25	
8,600.0	0.31	239.51	7,462.8	2,226.0	-3,292.4	3,974.2	0.00	0.00	
8,700.0	0.31	239.51	7,562.8	2,225.7	-3,292.9	3,974.4	0.00	0.00	
8,800.0	0.31	239.51	7,662.8	2,225.4	-3,293.4	3,974.7	0.00	0.00	
8,900.0	0.31	239.51	7,762.8	2,225.1	-3,293.8	3,974.9	0.00	0.00	
9,000.0	0.31	239.51	7,862.8	2,224.8	-3,294.3	3,975.2	0.00	0.00	
9,100.0	0.31	239.51	7,962.8	2,224.6	-3,294.8	3,975.4	0.00	0.00	
9,200.0	0.31	239.51	8,062.8	2,224.3	-3,295.2	3,975.6	0.00	0.00	
9,300.0	0.31	239.51	8,162.8	2,224.0	-3,295.7	3,975.9	0.00	0.00	
9,400.0	0.31	239.51	8,262.8	2,223.7	-3,296.2	3,976.1	0.00	0.00	

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8508B-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8508B-21 N22 496	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
9,500.0	0.31	239.51	8,362.8	2,223.5	-3,296.7	3,976.3	0.00	0.00	
9,600.0	0.31	239.51	8,462.8	2,223.2	-3,297.1	3,976.6	0.00	0.00	
9,700.0	0.31	239.51	8,562.8	2,222.9	-3,297.6	3,976.8	0.00	0.00	
9,800.0	0.31	239.51	8,662.8	2,222.6	-3,298.1	3,977.1	0.00	0.00	
9,900.0	0.31	239.51	8,762.8	2,222.3	-3,298.5	3,977.3	0.00	0.00	
10,000.0	0.31	239.51	8,862.8	2,222.1	-3,299.0	3,977.5	0.00	0.00	
10,100.0	0.31	239.51	8,962.8	2,221.8	-3,299.5	3,977.8	0.00	0.00	
10,200.0	0.31	239.51	9,062.8	2,221.5	-3,300.0	3,978.0	0.00	0.00	
10,300.0	0.31	239.51	9,162.8	2,221.2	-3,300.4	3,978.3	0.00	0.00	
10,400.0	0.31	239.51	9,262.8	2,221.0	-3,300.9	3,978.5	0.00	0.00	
10,500.0	0.31	239.51	9,362.8	2,220.7	-3,301.4	3,978.7	0.00	0.00	
10,600.0	0.31	239.51	9,462.8	2,220.4	-3,301.9	3,979.0	0.00	0.00	
10,700.0	0.31	239.51	9,562.8	2,220.1	-3,302.3	3,979.2	0.00	0.00	
10,800.0	0.31	239.51	9,662.8	2,219.8	-3,302.8	3,979.4	0.00	0.00	
10,900.0	0.31	239.51	9,762.8	2,219.6	-3,303.3	3,979.7	0.00	0.00	
11,000.0	0.31	239.51	9,862.8	2,219.3	-3,303.7	3,979.9	0.00	0.00	
11,100.0	0.31	239.51	9,962.8	2,219.0	-3,304.2	3,980.2	0.00	0.00	
11,200.0	0.31	239.51	10,062.8	2,218.7	-3,304.7	3,980.4	0.00	0.00	
11,300.0	0.31	239.51	10,162.8	2,218.5	-3,305.2	3,980.6	0.00	0.00	
11,400.0	0.31	239.51	10,262.8	2,218.2	-3,305.6	3,980.9	0.00	0.00	
11,500.0	0.31	239.51	10,362.8	2,217.9	-3,306.1	3,981.1	0.00	0.00	
11,600.0	0.31	239.51	10,462.8	2,217.6	-3,306.6	3,981.4	0.00	0.00	
11,700.0	0.31	239.51	10,562.8	2,217.3	-3,307.0	3,981.6	0.00	0.00	
11,800.0	0.31	239.51	10,662.8	2,217.1	-3,307.5	3,981.8	0.00	0.00	
11,900.0	0.31	239.51	10,762.8	2,216.8	-3,308.0	3,982.1	0.00	0.00	
12,000.0	0.31	239.51	10,862.8	2,216.5	-3,308.5	3,982.3	0.00	0.00	
12,100.0	0.31	239.51	10,962.8	2,216.2	-3,308.9	3,982.5	0.00	0.00	
12,109.2	0.31	239.51	10,972.0	2,216.2	-3,309.0	3,982.6	0.00	0.00	Rins (TVD) - 8508B-21 N22 496 PBHL (Column
12,200.0	0.31	239.51	11,062.8	2,216.0	-3,309.4	3,982.8	0.00	0.00	
12,300.0	0.31	239.51	11,162.8	2,215.7	-3,309.9	3,983.0	0.00	0.00	
12,400.0	0.31	239.51	11,262.8	2,215.4	-3,310.3	3,983.3	0.00	0.00	
12,439.2	0.31	239.51	11,302.0	2,215.3	-3,310.5	3,983.4	0.00	0.00	Cozz (TVD)
12,500.0	0.31	239.51	11,362.8	2,215.1	-3,310.8	3,983.5	0.00	0.00	
12,600.0	0.31	239.51	11,462.8	2,214.8	-3,311.3	3,983.7	0.00	0.00	
12,629.2	0.31	239.51	11,492.0	2,214.8	-3,311.4	3,983.8	0.00	0.00	Corc (TVD)
12,700.0	0.31	239.51	11,562.8	2,214.6	-3,311.8	3,984.0	0.00	0.00	
12,800.0	0.31	239.51	11,662.8	2,214.3	-3,312.2	3,984.2	0.00	0.00	
12,900.0	0.31	239.51	11,762.8	2,214.0	-3,312.7	3,984.4	0.00	0.00	
12,909.2	0.31	239.51	11,772.0	2,214.0	-3,312.7	3,984.5	0.00	0.00	Sego (TVD)
13,000.0	0.31	239.51	11,862.8	2,213.7	-3,313.2	3,984.7	0.00	0.00	
13,100.0	0.31	239.51	11,962.8	2,213.5	-3,313.6	3,984.9	0.00	0.00	
13,109.2	0.31	239.51	11,972.0	2,213.4	-3,313.7	3,984.9	0.00	0.00	L Sego (TVD)
13,200.0	0.31	239.51	12,062.8	2,213.2	-3,314.1	3,985.2	0.00	0.00	
13,300.0	0.31	239.51	12,162.8	2,212.9	-3,314.6	3,985.4	0.00	0.00	
13,359.2	0.31	239.51	12,222.0	2,212.7	-3,314.9	3,985.5	0.00	0.00	Drillers TD @ 13,359' MD
13,400.0	0.31	239.51	12,262.8	2,212.6	-3,315.1	3,985.6	0.00	0.00	
13,500.0	0.31	239.51	12,362.8	2,212.3	-3,315.5	3,985.9	0.00	0.00	
13,600.0	0.31	239.51	12,462.8	2,212.1	-3,316.0	3,986.1	0.00	0.00	
13,609.2	0.31	239.51	12,472.0	2,212.0	-3,316.0	3,986.1	0.00	0.00	Permit TD @ 13,609' MD

Cathedral Energy

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8508B-21 N22 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 7602.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	WELL @ 7602.0ft (Original Well Elev)
Site:	S22-T4S-R96W (N22 496) (Column Pattern)	North Reference:	True
Well:	8508B-21 N22 496	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)		
8508B-21 N22 496 PBH	0.00	0.00	10,972.0	2,216.2	-3,309.0	1,687,331.17	2,249,051.72	39° 41' 24.84 N	108° 10' 7.71 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
8508B-21 N22 496 TGT	0.00	0.00	7,312.0	2,226.2	-3,292.0	1,687,340.66	2,249,068.98	39° 41' 24.94 N	108° 10' 7.50 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
272.0	272.0	Para Creek (TVD)				
574.4	572.0	Mahog Bench (TVD)				
635.8	632.0	Base B Groove (TVD)				
4,824.7	4,172.0	Was G (TVD)				
8,409.2	7,272.0	WF (TVD)				
8,449.2	7,312.0	TOG (TVD)				
12,109.2	10,972.0	Rlms (TVD)				
12,439.2	11,302.0	Cozz (TVD)				
12,629.2	11,492.0	Corc (TVD)				
12,909.2	11,772.0	Sego (TVD)				
13,109.2	11,972.0	L Sego (TVD)				

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'
1,324.0	1,260.2	180.0	-266.2	EOB @ Inc. = 33.72°
7,325.2	6,251.8	2,046.2	-3,025.8	Start Drop -3.00
8,449.2	7,312.0	2,226.2	-3,292.0	EOD @ Inc. = 0°
13,359.2	12,222.0	2,226.0	-3,292.3	Drillers TD @ 13,359' MD
13,609.2	12,472.0	2,216.2	-3,309.0	Permit TD @ 13,609' MD