

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_CANNON 2 PAD**

**CANNON 36C-11HZ**

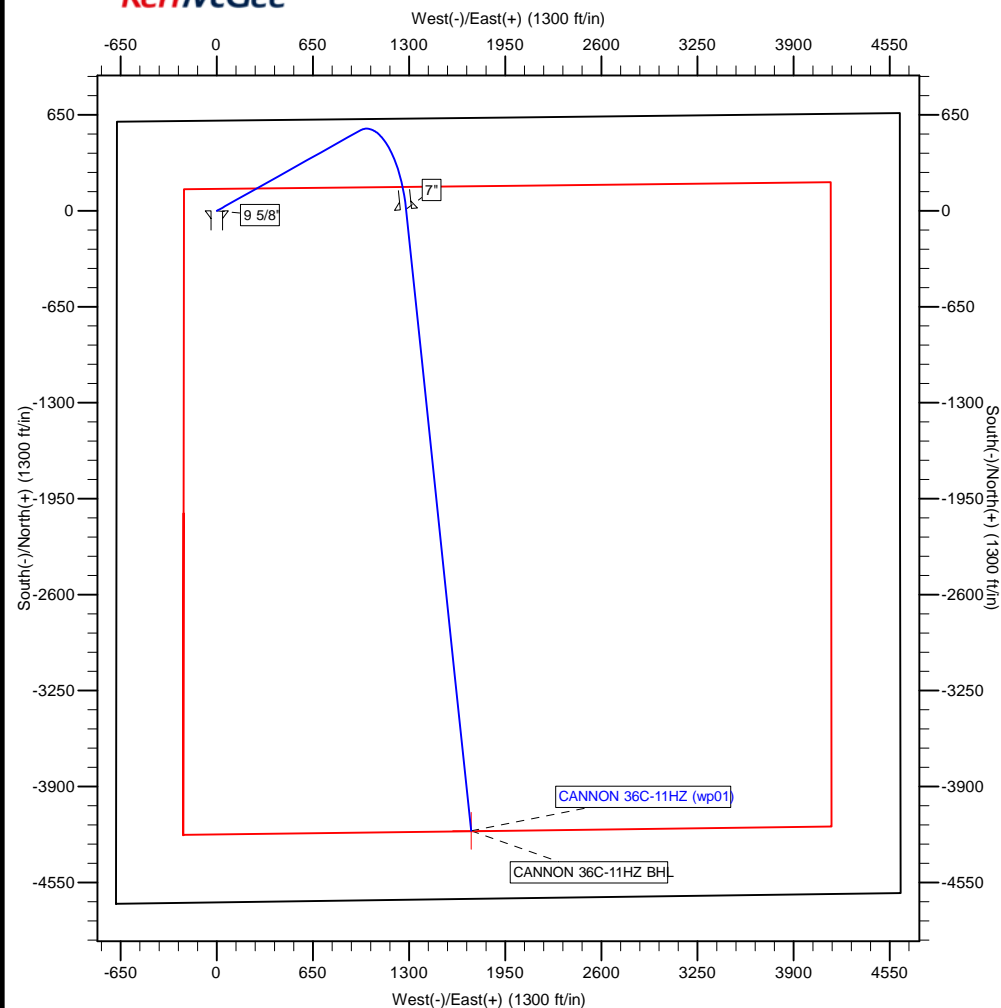
**CANNON 36C-11HZ**

**Plan: CANNON 36C-11HZ (wp01)**

## **Standard Planning Report**

**20 July, 2011**





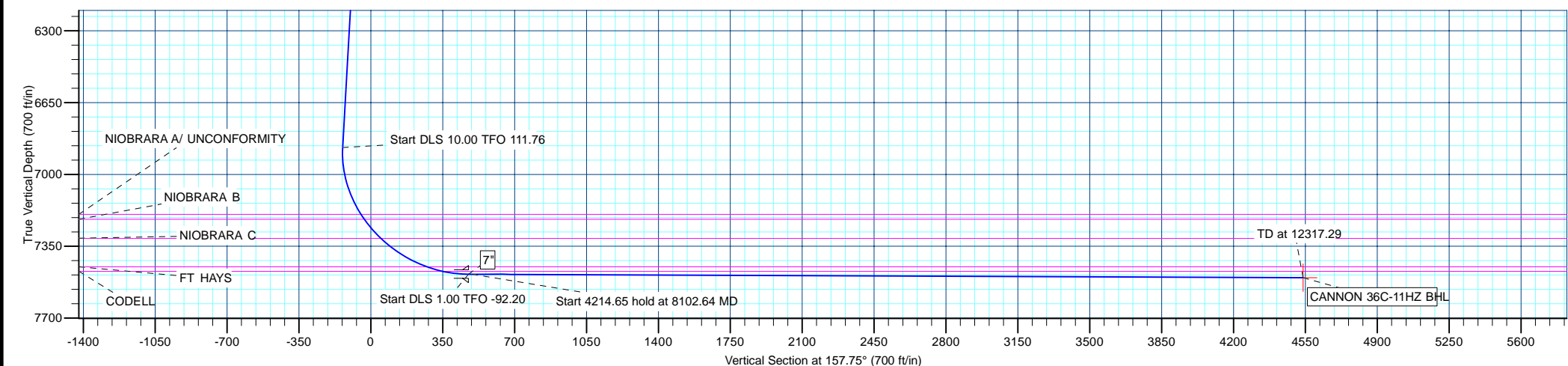
WELL DETAILS: CANNON 36C-11HZ						
+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude
0.00	0.00	1301402.79	3209240.04	5042.00	40.158321	-104.751377

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
CANNON 36C-11HZ BHL	7503.00	-4200.82	1718.96	40.146789	-104.745228	Point

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00	
5019.61	24.39	60.65	4983.10	125.33	222.89	2.00	60.65	-31.58	
7090.51	24.39	60.65	6869.15	544.49	968.37	0.00	0.00	-137.20	
8083.52	89.78	174.23	7486.00	10.00	1279.00	10.00	111.76	475.12	
8102.64	89.77	174.03	7486.08	-9.02	1280.96	1.00	-92.20	493.46	
12317.29	89.77	174.03	7503.00	-4200.82	1718.96	0.00	0.00	4538.91	CANNON 36C-11HZ BHL

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4172.00	4173.05	PARKMAN
4530.00	4538.14	SUSSEX
7194.00	7452.18	NIOBRARA A/ UNCONFORMITY
7218.00	7481.64	NIOBRARA B
7311.00	7606.03	NIOBRARA C
7450.00	7873.35	FT HAYS
7472.00	7953.81	CODELL

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
7486.00	8083.50	7"	7



<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well CANNON 36C-11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Site:</b>	WELD_CANNON 2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	CANNON 36C-11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CANNON 36C-11HZ		
<b>Design:</b>	CANNON 36C-11HZ (wp01)		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		WELD_CANNON 2 PAD			
Site Position:		Northing:	1,297,310.37 ft	Latitude:	40.146991
From:	Lat/Long	Easting:	3,213,348.62 ft	Longitude:	-104.736804
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.49

Well	CANNON 36C-11HZ					
Well Position	+N-S	4,127.63 ft	Northing:	1,301,402.79 ft	Latitude:	40.158321
	+E-W	-4,073.20 ft	Easting:	3,209,240.05 ft	Longitude:	-104.751377
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,042.00 ft

<b>Wellbore</b>	CANNON 36C-11HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/20/2011	8.82	66.85	52,994

<b>Design</b>	CANNON 36C-11HZ (wp01)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	157.75

<b>Plan Sections</b>										
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,019.61	24.39	60.65	4,983.10	125.33	222.89	2.00	2.00	0.00	60.65	
7,090.51	24.39	60.65	6,869.15	544.49	968.37	0.00	0.00	0.00	0.00	
8,083.52	89.78	174.23	7,486.00	10.00	1,279.00	10.00	6.58	11.44	111.76	
8,102.64	89.77	174.03	7,486.08	-9.02	1,280.96	1.00	-0.04	-1.00	-92.20	
12,317.29	89.77	174.03	7,503.00	-4,200.82	1,718.96	0.00	0.00	0.00	0.00	CANNON 36C-11H

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well CANNON 36C-11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Site:</b>	WELD_CANNON 2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	CANNON 36C-11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CANNON 36C-11HZ		
<b>Design:</b>	CANNON 36C-11HZ (wp01)		

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)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
3,900.00	2.00	60.65	3,899.98	0.86	1.52	-0.22	2.00	2.00	0.00
4,000.00	4.00	60.65	3,999.84	3.42	6.08	-0.86	2.00	2.00	0.00
4,100.00	6.00	60.65	4,099.45	7.69	13.68	-1.94	2.00	2.00	0.00
4,173.05	7.46	60.65	4,172.00	11.89	21.14	-3.00	2.00	2.00	0.00
PARKMAN									
4,200.00	8.00	60.65	4,198.70	13.66	24.30	-3.44	2.00	2.00	0.00
4,300.00	10.00	60.65	4,297.47	21.33	37.94	-5.37	2.00	2.00	0.00
4,400.00	12.00	60.65	4,395.62	30.68	54.57	-7.73	2.00	2.00	0.00
4,500.00	14.00	60.65	4,493.06	41.71	74.18	-10.51	2.00	2.00	0.00
4,538.14	14.76	60.65	4,530.00	46.35	82.43	-11.68	2.00	2.00	0.00
SUSSEX									
4,600.00	16.00	60.65	4,589.64	54.39	96.73	-13.71	2.00	2.00	0.00
4,700.00	18.00	60.65	4,685.27	68.72	122.22	-17.32	2.00	2.00	0.00

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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Site:</b>	WELD_CANNON 2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	CANNON 36C-11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CANNON 36C-11HZ		
<b>Design:</b>	CANNON 36C-11HZ (wp01)		

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)	Turn Rate (°/100ft)
4,800.00	20.00	60.65	4,779.82	84.68	150.59	-21.34	2.00	2.00	0.00
4,900.00	22.00	60.65	4,873.17	102.24	181.83	-25.76	2.00	2.00	0.00
5,000.00	24.00	60.65	4,965.21	121.39	215.89	-30.59	2.00	2.00	0.00
5,019.61	24.39	60.65	4,983.10	125.33	222.89	-31.58	2.00	2.00	0.00
<b>Start 2070.90 hold at 5019.61 MD</b>									
5,100.00	24.39	60.65	5,056.32	141.60	251.83	-35.68	0.00	0.00	0.00
5,200.00	24.39	60.65	5,147.39	161.84	287.83	-40.78	0.00	0.00	0.00
5,300.00	24.39	60.65	5,238.46	182.08	323.83	-45.88	0.00	0.00	0.00
5,400.00	24.39	60.65	5,329.54	202.32	359.82	-50.98	0.00	0.00	0.00
5,500.00	24.39	60.65	5,420.61	222.56	395.82	-56.08	0.00	0.00	0.00
5,600.00	24.39	60.65	5,511.69	242.80	431.82	-61.18	0.00	0.00	0.00
5,700.00	24.39	60.65	5,602.76	263.04	467.82	-66.28	0.00	0.00	0.00
5,800.00	24.39	60.65	5,693.83	283.28	503.82	-71.38	0.00	0.00	0.00
5,900.00	24.39	60.65	5,784.91	303.52	539.81	-76.48	0.00	0.00	0.00
6,000.00	24.39	60.65	5,875.98	323.77	575.81	-81.58	0.00	0.00	0.00
6,100.00	24.39	60.65	5,967.06	344.01	611.81	-86.68	0.00	0.00	0.00
6,200.00	24.39	60.65	6,058.13	364.25	647.81	-91.78	0.00	0.00	0.00
6,300.00	24.39	60.65	6,149.20	384.49	683.80	-96.88	0.00	0.00	0.00
6,400.00	24.39	60.65	6,240.28	404.73	719.80	-101.98	0.00	0.00	0.00
6,500.00	24.39	60.65	6,331.35	424.97	755.80	-107.08	0.00	0.00	0.00
6,600.00	24.39	60.65	6,422.43	445.21	791.80	-112.18	0.00	0.00	0.00
6,700.00	24.39	60.65	6,513.50	465.45	827.80	-117.28	0.00	0.00	0.00
6,800.00	24.39	60.65	6,604.57	485.69	863.79	-122.38	0.00	0.00	0.00
6,900.00	24.39	60.65	6,695.65	505.93	899.79	-127.48	0.00	0.00	0.00
7,000.00	24.39	60.65	6,786.72	526.17	935.79	-132.58	0.00	0.00	0.00
7,090.51	24.39	60.65	6,869.15	544.49	968.37	-137.20	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 111.76</b>									
7,100.00	24.06	62.82	6,877.81	546.34	971.80	-137.61	10.00	-3.55	22.79
7,200.00	22.60	87.98	6,969.86	556.35	1,009.22	-132.70	10.00	-1.46	25.17
7,300.00	25.14	112.06	7,061.52	549.03	1,048.21	-111.16	10.00	2.54	24.08
7,400.00	30.71	129.95	7,150.00	524.59	1,087.57	-73.64	10.00	5.57	17.88
7,452.18	34.35	136.90	7,194.00	505.28	1,107.85	-48.08	10.00	6.99	13.33
<b>NIORARA A/ UNCONFORMITY</b>									
7,481.64	36.56	140.26	7,218.00	492.46	1,119.15	-31.94	10.00	7.50	11.41
<b>NIORARA B</b>									
7,500.00	37.98	142.18	7,232.61	483.79	1,126.11	-21.28	10.00	7.74	10.46
7,600.00	46.16	150.81	7,306.84	427.86	1,162.65	44.33	10.00	8.18	8.63
7,606.03	46.67	151.25	7,311.00	424.03	1,164.77	48.67	10.00	8.48	7.31
<b>NIORARA C</b>									
7,700.00	54.83	157.30	7,370.44	358.49	1,196.10	121.19	10.00	8.68	6.43
7,800.00	63.77	162.51	7,421.47	277.81	1,225.42	206.97	10.00	8.94	5.21
7,873.35	70.44	165.83	7,450.00	212.84	1,243.79	274.06	10.00	9.09	4.53
<b>FT HAYS</b>									
7,900.00	72.88	166.97	7,458.39	188.25	1,249.74	299.07	10.00	9.15	4.26
7,953.81	77.82	169.17	7,472.00	137.33	1,260.49	350.27	10.00	9.18	4.10
<b>CODELL</b>									
8,000.00	82.07	171.00	7,480.07	92.54	1,268.31	394.68	10.00	9.21	3.96
8,083.50	89.78	174.23	7,486.00	10.02	1,279.00	475.11	10.00	9.23	3.86
<b>7"</b>									
8,083.52	89.78	174.23	7,486.00	10.00	1,279.00	475.12	10.00	9.24	3.84
<b>Start DLS 1.00 TFO -92.20</b>									
8,100.00	89.77	174.06	7,486.07	-6.40	1,280.68	490.94	1.00	-0.04	-1.00
8,102.64	89.77	174.03	7,486.08	-9.02	1,280.96	493.46	1.00	-0.04	-1.00

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well CANNON 36C-11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Site:</b>	WELD_CANNON 2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	CANNON 36C-11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CANNON 36C-11HZ		
<b>Design:</b>	CANNON 36C-11HZ (wp01)		

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)	Turn Rate (°/100ft)
Start 4214.65 hold at 8102.64 MD									
8,200.00	89.77	174.03	7,486.47	-105.85	1,291.07	586.92	0.00	0.00	0.00
8,300.00	89.77	174.03	7,486.87	-205.31	1,301.47	682.91	0.00	0.00	0.00
8,400.00	89.77	174.03	7,487.27	-304.77	1,311.86	778.89	0.00	0.00	0.00
8,500.00	89.77	174.03	7,487.67	-404.23	1,322.25	874.88	0.00	0.00	0.00
8,600.00	89.77	174.03	7,488.07	-503.69	1,332.64	970.86	0.00	0.00	0.00
8,700.00	89.77	174.03	7,488.47	-603.14	1,343.04	1,066.85	0.00	0.00	0.00
8,800.00	89.77	174.03	7,488.88	-702.60	1,353.43	1,162.83	0.00	0.00	0.00
8,900.00	89.77	174.03	7,489.28	-802.06	1,363.82	1,258.82	0.00	0.00	0.00
9,000.00	89.77	174.03	7,489.68	-901.52	1,374.21	1,354.80	0.00	0.00	0.00
9,100.00	89.77	174.03	7,490.08	-1,000.97	1,384.60	1,450.79	0.00	0.00	0.00
9,200.00	89.77	174.03	7,490.48	-1,100.43	1,395.00	1,546.77	0.00	0.00	0.00
9,300.00	89.77	174.03	7,490.88	-1,199.89	1,405.39	1,642.76	0.00	0.00	0.00
9,400.00	89.77	174.03	7,491.29	-1,299.35	1,415.78	1,738.74	0.00	0.00	0.00
9,500.00	89.77	174.03	7,491.69	-1,398.80	1,426.17	1,834.73	0.00	0.00	0.00
9,600.00	89.77	174.03	7,492.09	-1,498.26	1,436.57	1,930.71	0.00	0.00	0.00
9,700.00	89.77	174.03	7,492.49	-1,597.72	1,446.96	2,026.70	0.00	0.00	0.00
9,800.00	89.77	174.03	7,492.89	-1,697.18	1,457.35	2,122.68	0.00	0.00	0.00
9,900.00	89.77	174.03	7,493.29	-1,796.64	1,467.74	2,218.67	0.00	0.00	0.00
10,000.00	89.77	174.03	7,493.69	-1,896.09	1,478.14	2,314.65	0.00	0.00	0.00
10,100.00	89.77	174.03	7,494.10	-1,995.55	1,488.53	2,410.64	0.00	0.00	0.00
10,200.00	89.77	174.03	7,494.50	-2,095.01	1,498.92	2,506.62	0.00	0.00	0.00
10,300.00	89.77	174.03	7,494.90	-2,194.47	1,509.31	2,602.61	0.00	0.00	0.00
10,400.00	89.77	174.03	7,495.30	-2,293.92	1,519.71	2,698.59	0.00	0.00	0.00
10,500.00	89.77	174.03	7,495.70	-2,393.38	1,530.10	2,794.58	0.00	0.00	0.00
10,600.00	89.77	174.03	7,496.10	-2,492.84	1,540.49	2,890.56	0.00	0.00	0.00
10,700.00	89.77	174.03	7,496.51	-2,592.30	1,550.88	2,986.55	0.00	0.00	0.00
10,800.00	89.77	174.03	7,496.91	-2,691.76	1,561.27	3,082.53	0.00	0.00	0.00
10,900.00	89.77	174.03	7,497.31	-2,791.21	1,571.67	3,178.52	0.00	0.00	0.00
11,000.00	89.77	174.03	7,497.71	-2,890.67	1,582.06	3,274.50	0.00	0.00	0.00
11,100.00	89.77	174.03	7,498.11	-2,990.13	1,592.45	3,370.49	0.00	0.00	0.00
11,200.00	89.77	174.03	7,498.51	-3,089.59	1,602.84	3,466.47	0.00	0.00	0.00
11,300.00	89.77	174.03	7,498.92	-3,189.04	1,613.24	3,562.46	0.00	0.00	0.00
11,400.00	89.77	174.03	7,499.32	-3,288.50	1,623.63	3,658.45	0.00	0.00	0.00
11,500.00	89.77	174.03	7,499.72	-3,387.96	1,634.02	3,754.43	0.00	0.00	0.00
11,600.00	89.77	174.03	7,500.12	-3,487.42	1,644.41	3,850.42	0.00	0.00	0.00
11,700.00	89.77	174.03	7,500.52	-3,586.87	1,654.81	3,946.40	0.00	0.00	0.00
11,800.00	89.77	174.03	7,500.92	-3,686.33	1,665.20	4,042.39	0.00	0.00	0.00
11,900.00	89.77	174.03	7,501.32	-3,785.79	1,675.59	4,138.37	0.00	0.00	0.00
12,000.00	89.77	174.03	7,501.73	-3,885.25	1,685.98	4,234.36	0.00	0.00	0.00
12,100.00	89.77	174.03	7,502.13	-3,984.71	1,696.38	4,330.34	0.00	0.00	0.00
12,200.00	89.77	174.03	7,502.53	-4,084.16	1,706.77	4,426.33	0.00	0.00	0.00
12,300.00	89.77	174.03	7,502.93	-4,183.62	1,717.16	4,522.31	0.00	0.00	0.00
12,317.29	89.77	174.03	7,503.00	-4,200.82	1,718.96	4,538.91	0.00	0.00	0.00
TD at 12317.29 - CANNON 36C-11HZ BHL									

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well CANNON 36C-11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	17' RKB +5042' GL @ 5059.00ft
<b>Site:</b>	WELD_CANNON 2 PAD	<b>North Reference:</b>	True
<b>Well:</b>	CANNON 36C-11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CANNON 36C-11HZ		
<b>Design:</b>	CANNON 36C-11HZ (wp01)		

Design 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)		
CANNON 36C-11HZ I	0.00	0.00	7,503.00	-4,200.82	1,718.96	1,297,216.63	3,210,994.41	40.146789	-104.745228
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth		Name	Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
900.00	900.00	9 5/8"		9-5/8	12-1/4
8,083.50	7,486.00	7"		7	8-3/4

Formations						
Measured Depth	Vertical Depth		Name	Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,173.05	4,172.00	PARKMAN			0.00	
4,538.14	4,530.00	SUSSEX			0.00	
7,452.18	7,194.00	NIOBRARA A/ UNCONFORMITY			0.00	
7,481.64	7,218.00	NIOBRARA B			0.00	
7,606.03	7,311.00	NIOBRARA C			0.00	
7,873.35	7,450.00	FT HAYS			0.00	
7,953.81	7,472.00	CODELL			0.00	

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
3,800.00	3,800.00	0.00	0.00	Start Build 2.00	
5,019.61	4,983.10	125.33	222.89	Start 2070.90 hold at 5019.61 MD	
7,090.51	6,869.15	544.49	968.37	Start DLS 10.00 TFO 111.76	
8,083.52	7,486.00	10.00	1,279.00	Start DLS 1.00 TFO -92.20	
8,102.64	7,486.08	-9.02	1,280.96	Start 4214.65 hold at 8102.64 MD	
12,317.29	7,503.00	-4,200.82	1,718.96	TD at 12317.29	