



# **ANADARKO PETROLEUM CORP.**

**ANADARKO COLORADO NORTHERN ZONE NAD 83**

**WELD\_REI 13-10 PAD**

**REI 35-10**

**REI 35-10**

**Plan: REI 35-10 (wp01)**

## **Standard Planning Report**

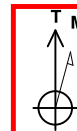
**18 October, 2010**



Project: ANADARKO COLORADO NORTHERN ZONE NAD 83  
Site: WELD\_REI 13-10 PAD  
Well: REI 35-10  
Wellbore: REI 35-10  
Section:  
SHL:  
Design: REI 35-10 (wp01)  
Latitude: 40° 14' 1.741 N  
Longitude: 104° 39' 27.940 W  
GL: 4816.0  
KB: WELL @ 4816.0ft (Original Well Elev)



Weatherford®



Azimuths to True North  
Magnetic North: 8.84°

Magnetic Field  
Strength: 53109.1snT  
Dip Angle: 66.97°  
Date: 10/11/2010  
Model: BGGM2010

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4066.0	4225.6	PK Depth
4348.0	4512.3	SX Depth
6828.0	6993.3	NIO Depth
7126.0	7291.3	CD Depth
7194.0	7359.3	GH Depth
7566.0	7731.3	J Depth

#### CASING DETAILS

TVD	MD	Name	Size
750.0	750.0	9 5/8"	9-5/8

#### SECTION DETAILS

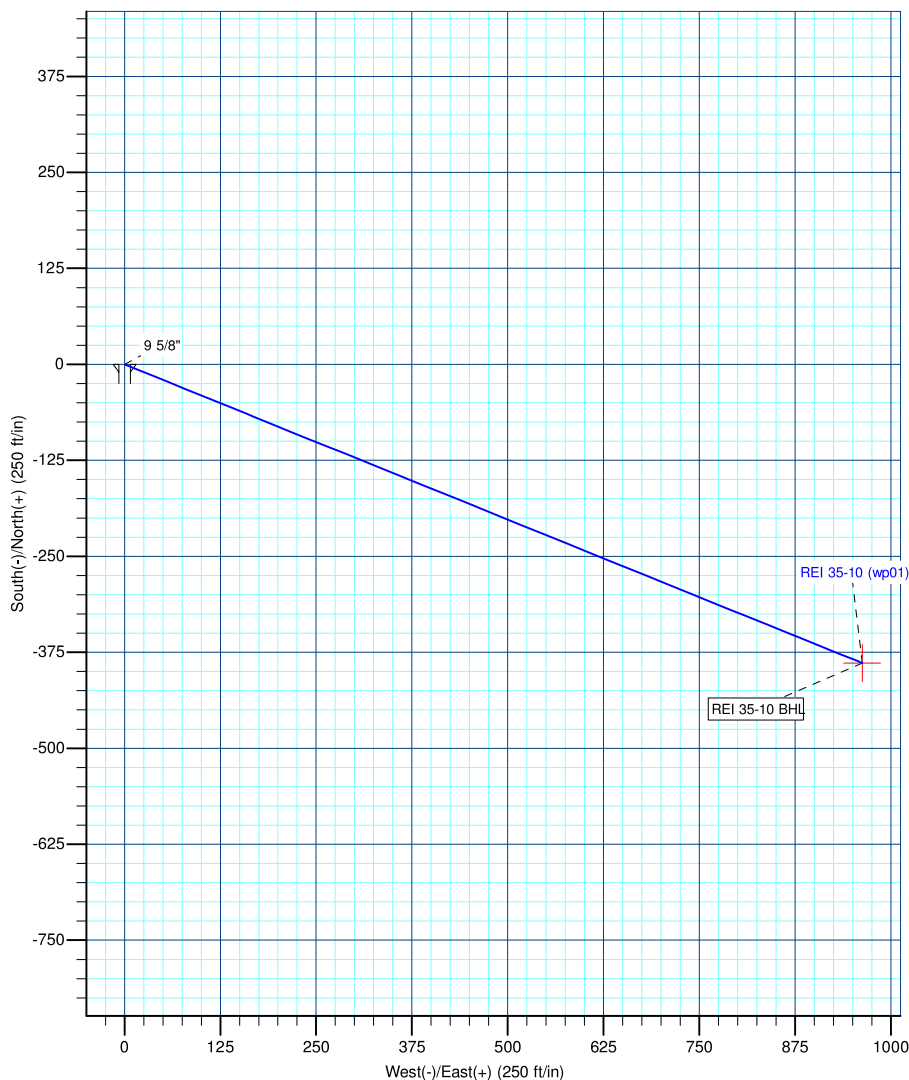
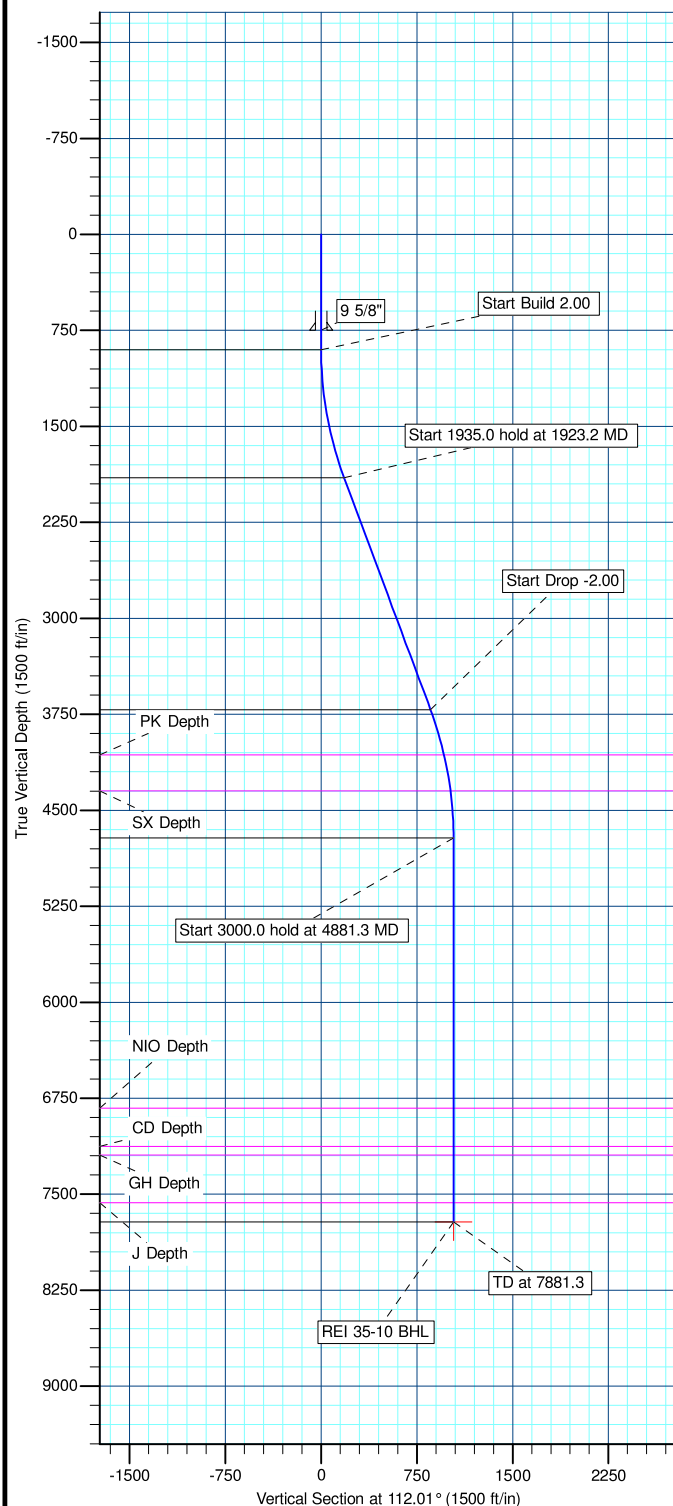
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
1923.2	20.46	112.01	1901.6	-67.8	167.6	2.00	112.01	180.8	Start 1935.0 hold at 1923.2 MD
3858.2	20.46	112.01	3714.4	-321.3	794.8	0.00	0.00	857.3	Start Drop -2.00
4881.3	0.00	0.00	4716.0	-389.0	962.4	2.00	180.00	1038.1	Start 3000.0 hold at 4881.3 MD
7881.3	0.00	0.00	7716.0	-389.0	962.4	0.00	0.00	1038.1	TD at 7881.3

#### WELL DETAILS: REI 35-10

+N/-S	+E/-W	Northing	Ground Level: Easting	4816.0 Latitude	Longitude	Slot
0.0	0.0	1329138.16	3235143.75	40° 14' 1.741 N	104° 39' 27.940 W	

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
REI 35-10 BHL	7716.0	-389.0	962.4	40° 13' 57.896 N	104° 39' 15.530 W	Point



Plan: REI 35-10 (wp01) (REI 35-10/REI 35-10)

Created By: Jason Daguitera Date: 16:54, October 18 2010



# Weatherford International Ltd.

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 35-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 35-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 35-10		
<b>Design:</b>	REI 35-10 (wp01)		

<b>Project</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83, ROCKIES, ROCKIES		
<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		

<b>Site</b>	WELD_REI 13-10 PAD		
<b>Site Position:</b>		<b>Northing:</b>	1,329,137.23ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,235,159.67ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40° 14' 1.730 N
		<b>Longitude:</b>	104° 39' 27.734 W
		<b>Grid Convergence:</b>	0.54 °

<b>Well</b>	REI 35-10		
<b>Well Position</b>	<b>+N/-S</b>	1.1 ft	<b>Northing:</b>
	<b>+E/-W</b>	-15.9 ft	<b>Easting:</b>
<b>Position Uncertainty</b>		0.0 ft	<b>Wellhead Elevation:</b>
			ft
			<b>Latitude:</b>
			40° 14' 1.741 N
			<b>Longitude:</b>
			104° 39' 27.940 W
			<b>Ground Level:</b>
			4,816.0ft

<b>Wellbore</b>	REI 35-10				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2010	10/11/2010	8.84	66.97	53,109

<b>Design</b>	REI 35-10 (wp01)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	112.01

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,923.2	20.46	112.01	1,901.6	-67.8	167.6	2.00	2.00	0.00	112.01	
3,858.2	20.46	112.01	3,714.4	-321.3	794.8	0.00	0.00	0.00	0.00	
4,881.3	0.00	0.00	4,716.0	-389.0	962.4	2.00	-2.00	0.00	180.00	
7,881.3	0.00	0.00	7,716.0	-389.0	962.4	0.00	0.00	0.00	0.00	REI 35-10 BHL

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 35-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 35-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 35-10		
<b>Design:</b>	REI 35-10 (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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>9 5/8"</b>									
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>Start Build 2.00</b>									
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	2.00	112.01	1,000.0	-0.7	1.6	1.7	2.00	2.00	0.00
1,100.0	4.00	112.01	1,099.8	-2.6	6.5	7.0	2.00	2.00	0.00
1,200.0	6.00	112.01	1,199.5	-5.9	14.5	15.7	2.00	2.00	0.00
1,300.0	8.00	112.01	1,298.7	-10.4	25.8	27.9	2.00	2.00	0.00
1,400.0	10.00	112.01	1,397.5	-16.3	40.4	43.5	2.00	2.00	0.00
1,500.0	12.00	112.01	1,495.6	-23.5	58.0	62.6	2.00	2.00	0.00
1,600.0	14.00	112.01	1,593.1	-31.9	78.9	85.1	2.00	2.00	0.00
1,700.0	16.00	112.01	1,689.6	-41.6	102.9	111.0	2.00	2.00	0.00
1,800.0	18.00	112.01	1,785.3	-52.5	130.0	140.2	2.00	2.00	0.00
1,900.0	20.00	112.01	1,879.8	-64.7	160.2	172.8	2.00	2.00	0.00
<b>Start 1935.0 hold at 1923.2 MD</b>									
1,923.2	20.46	112.01	1,901.6	-67.8	167.6	180.8	2.00	2.00	0.00
2,000.0	20.46	112.01	1,973.5	-77.8	192.5	207.6	0.00	0.00	0.00
2,100.0	20.46	112.01	2,067.2	-90.9	224.9	242.6	0.00	0.00	0.00
2,200.0	20.46	112.01	2,160.9	-104.0	257.3	277.6	0.00	0.00	0.00
2,300.0	20.46	112.01	2,254.6	-117.1	289.7	312.5	0.00	0.00	0.00
2,400.0	20.46	112.01	2,348.3	-130.2	322.2	347.5	0.00	0.00	0.00
2,500.0	20.46	112.01	2,442.0	-143.3	354.6	382.4	0.00	0.00	0.00
2,600.0	20.46	112.01	2,535.7	-156.4	387.0	417.4	0.00	0.00	0.00
2,700.0	20.46	112.01	2,629.4	-169.5	419.4	452.4	0.00	0.00	0.00
2,800.0	20.46	112.01	2,723.1	-182.6	451.8	487.3	0.00	0.00	0.00
2,900.0	20.46	112.01	2,816.7	-195.7	484.2	522.3	0.00	0.00	0.00
3,000.0	20.46	112.01	2,910.4	-208.8	516.6	557.2	0.00	0.00	0.00
3,100.0	20.46	112.01	3,004.1	-221.9	549.0	592.2	0.00	0.00	0.00
3,200.0	20.46	112.01	3,097.8	-235.0	581.5	627.2	0.00	0.00	0.00
3,300.0	20.46	112.01	3,191.5	-248.1	613.9	662.1	0.00	0.00	0.00
3,400.0	20.46	112.01	3,285.2	-261.2	646.3	697.1	0.00	0.00	0.00
3,500.0	20.46	112.01	3,378.9	-274.4	678.7	732.1	0.00	0.00	0.00
3,600.0	20.46	112.01	3,472.6	-287.5	711.1	767.0	0.00	0.00	0.00
3,700.0	20.46	112.01	3,566.3	-300.6	743.5	802.0	0.00	0.00	0.00
3,800.0	20.46	112.01	3,660.0	-313.7	775.9	836.9	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
3,858.2	20.46	112.01	3,714.4	-321.3	794.8	857.3	0.00	0.00	0.00
3,900.0	19.63	112.01	3,753.7	-326.7	808.1	871.6	2.00	-2.00	0.00
4,000.0	17.63	112.01	3,848.5	-338.6	837.7	903.5	2.00	-2.00	0.00
4,100.0	15.63	112.01	3,944.3	-349.3	864.2	932.2	2.00	-2.00	0.00
4,200.0	13.63	112.01	4,041.1	-358.8	887.6	957.4	2.00	-2.00	0.00
<b>PK Depth</b>									
4,225.6	13.11	112.01	4,066.0	-361.0	893.1	963.3	2.00	-2.00	0.00
4,300.0	11.63	112.01	4,138.6	-367.0	907.9	979.3	2.00	-2.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 35-10
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<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 35-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 35-10		
<b>Design:</b>	REI 35-10 (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)
4,400.0	9.63	112.01	4,236.9	-373.9	925.0	997.7	2.00	-2.00	0.00
4,500.0	7.63	112.01	4,335.8	-379.5	938.9	1,012.7	2.00	-2.00	0.00
<b>SX Depth</b>									
4,512.3	7.38	112.01	4,348.0	-380.1	940.4	1,014.3	2.00	-2.00	0.00
4,600.0	5.63	112.01	4,435.1	-383.9	949.6	1,024.2	2.00	-2.00	0.00
4,700.0	3.63	112.01	4,534.8	-386.9	957.1	1,032.3	2.00	-2.00	0.00
4,800.0	1.63	112.01	4,634.7	-388.6	961.3	1,036.9	2.00	-2.00	0.00
<b>Start 3000.0 hold at 4881.3 MD</b>									
4,881.3	0.00	0.00	4,716.0	-389.0	962.4	1,038.1	2.00	-2.00	0.00
4,900.0	0.00	0.00	4,734.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,000.0	0.00	0.00	4,834.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,100.0	0.00	0.00	4,934.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,200.0	0.00	0.00	5,034.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,300.0	0.00	0.00	5,134.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,400.0	0.00	0.00	5,234.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,500.0	0.00	0.00	5,334.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,600.0	0.00	0.00	5,434.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,700.0	0.00	0.00	5,534.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,800.0	0.00	0.00	5,634.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
5,900.0	0.00	0.00	5,734.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,000.0	0.00	0.00	5,834.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,100.0	0.00	0.00	5,934.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,200.0	0.00	0.00	6,034.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,300.0	0.00	0.00	6,134.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,400.0	0.00	0.00	6,234.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,500.0	0.00	0.00	6,334.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,600.0	0.00	0.00	6,434.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,700.0	0.00	0.00	6,534.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,800.0	0.00	0.00	6,634.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
6,900.0	0.00	0.00	6,734.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
<b>NIO Depth</b>									
6,993.3	0.00	0.00	6,828.0	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,000.0	0.00	0.00	6,834.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,100.0	0.00	0.00	6,934.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,200.0	0.00	0.00	7,034.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
<b>CD Depth</b>									
7,291.3	0.00	0.00	7,126.0	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,300.0	0.00	0.00	7,134.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
<b>GH Depth</b>									
7,359.3	0.00	0.00	7,194.0	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,400.0	0.00	0.00	7,234.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,500.0	0.00	0.00	7,334.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,600.0	0.00	0.00	7,434.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,700.0	0.00	0.00	7,534.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
<b>J Depth</b>									
7,731.3	0.00	0.00	7,566.0	-389.0	962.4	1,038.1	0.00	0.00	0.00
7,800.0	0.00	0.00	7,634.7	-389.0	962.4	1,038.1	0.00	0.00	0.00
<b>TD at 7881.3</b>									
7,881.3	0.00	0.00	7,716.0	-389.0	962.4	1,038.1	0.00	0.00	0.00



# Weatherford International Ltd.

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 35-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	WELL @ 4816.0ft (Original Well Elev)
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 35-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 35-10		
<b>Design:</b>	REI 35-10 (wp01)		

### Design Targets

#### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
REI 35-10 BHL	0.00	0.00	7,716.0	-389.0	962.4	1,328,758.29	3,236,109.80	40° 13' 57.896 N	104° 39' 15.530 W
- plan hits target center									
- Point									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
750.0	750.0	9 5/8"	9-5/8	12-1/4

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,731.3	7,566.0	J Depth			
7,359.3	7,194.0	GH Depth			
7,291.3	7,126.0	CD Depth			
4,512.3	4,348.0	SX Depth			
6,993.3	6,828.0	NIO Depth			
4,225.6	4,066.0	PK Depth			

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
900.0	900.0	0.0	0.0	Start Build 2.00
1,923.2	1,901.6	-67.8	167.6	Start 1935.0 hold at 1923.2 MD
3,858.2	3,714.4	-321.3	794.8	Start Drop -2.00
4,881.3	4,716.0	-389.0	962.4	Start 3000.0 hold at 4881.3 MD
7,881.3	7,716.0	-389.0	962.4	TD at 7881.3