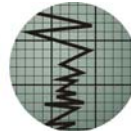




Weatherford®



FINAL SURVEYS.....SEC.1

DAILY ACTIVITY.....SEC.2

BHA REPORTS..... SEC.3

MOTOR REPORTS.....SEC.4

SLIDE REPORTSEC.5

Drilling Services-Denver, CO



FINAL SURVEYS

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 37-31HZ PAD

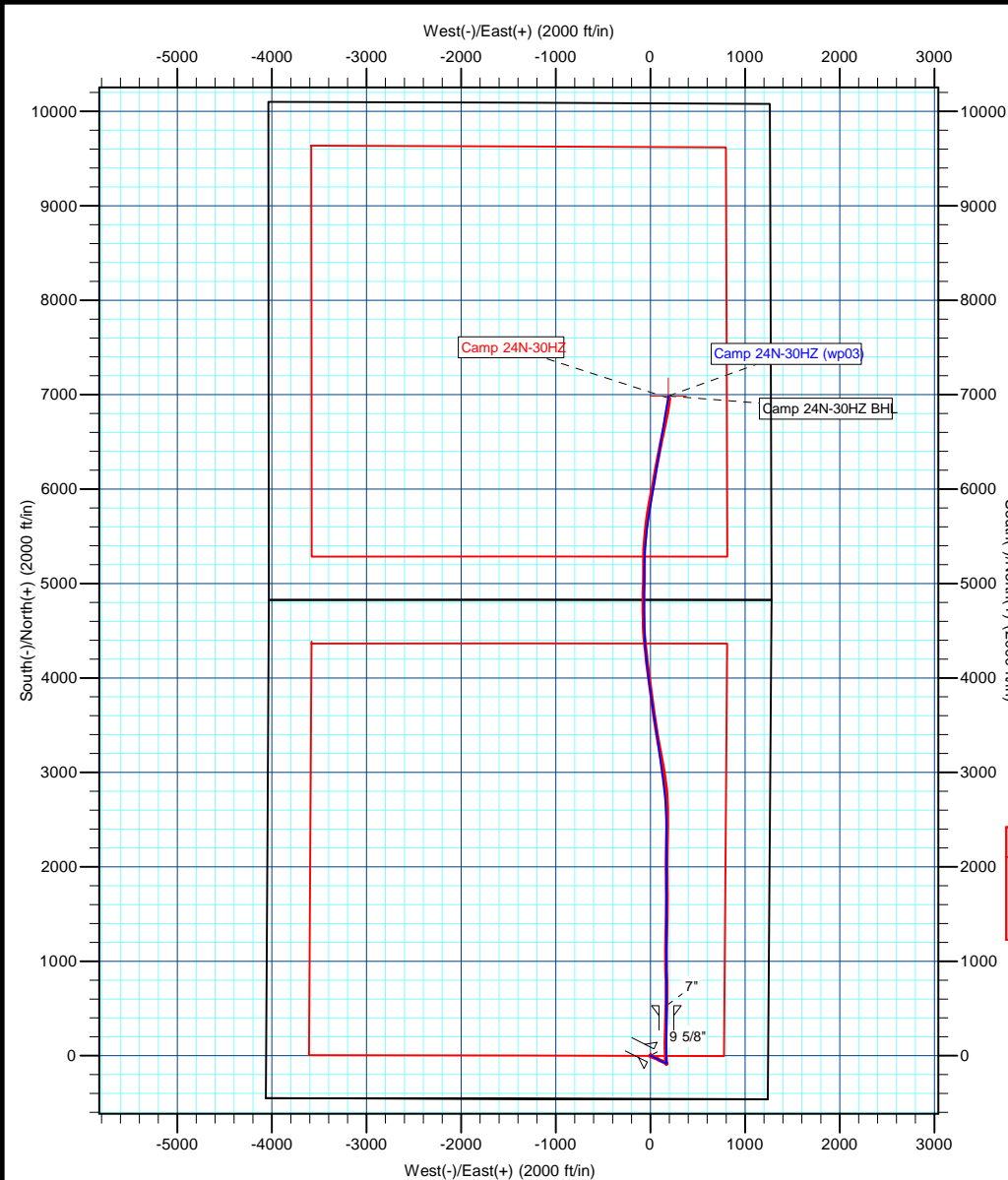
Camp 24N-30HZ

Camp 24N-30HZ

Design: Camp 24N-30HZ

Standard Survey Report

03 July, 2012



T

M

A

Azimuths to True North

Magnetic North: 8.68°

Magnetic Field

Strength: 52916.7snT

Dip Angle: 66.85°

Date: 6/5/2012

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD_CAMP 37-31HZ PAD

Well: Camp 24N-30HZ

Wellbore: Camp 24N-30HZ

Section:

SHL:

Design: Camp 24N-30HZ (wp03)

Latitude: 40.175944

Longitude: -104.701572

GL: 4949.00

KB: 25' RKB + 4949' GL @ 4974.00ft

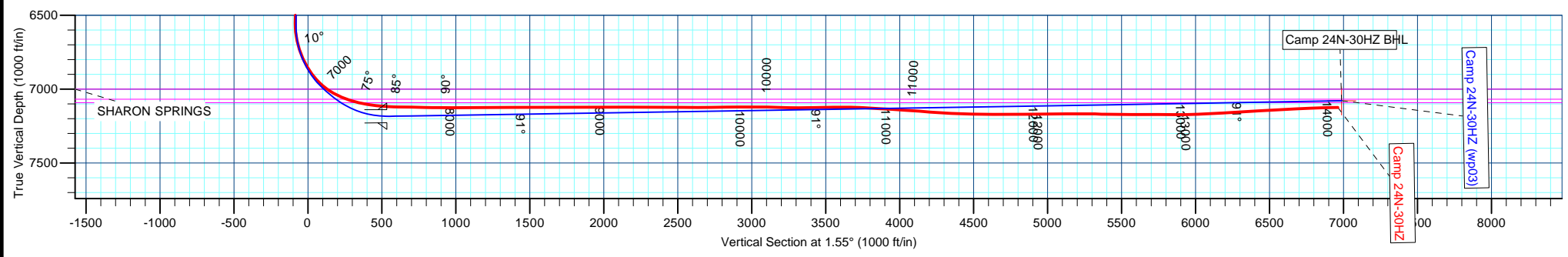
WELL DETAILS: Camp 24N-30HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4949.00 Latitude	Longitude	Slot
0.00	0.00	1307943.67	3223102.37	40.175944	-104.701572	

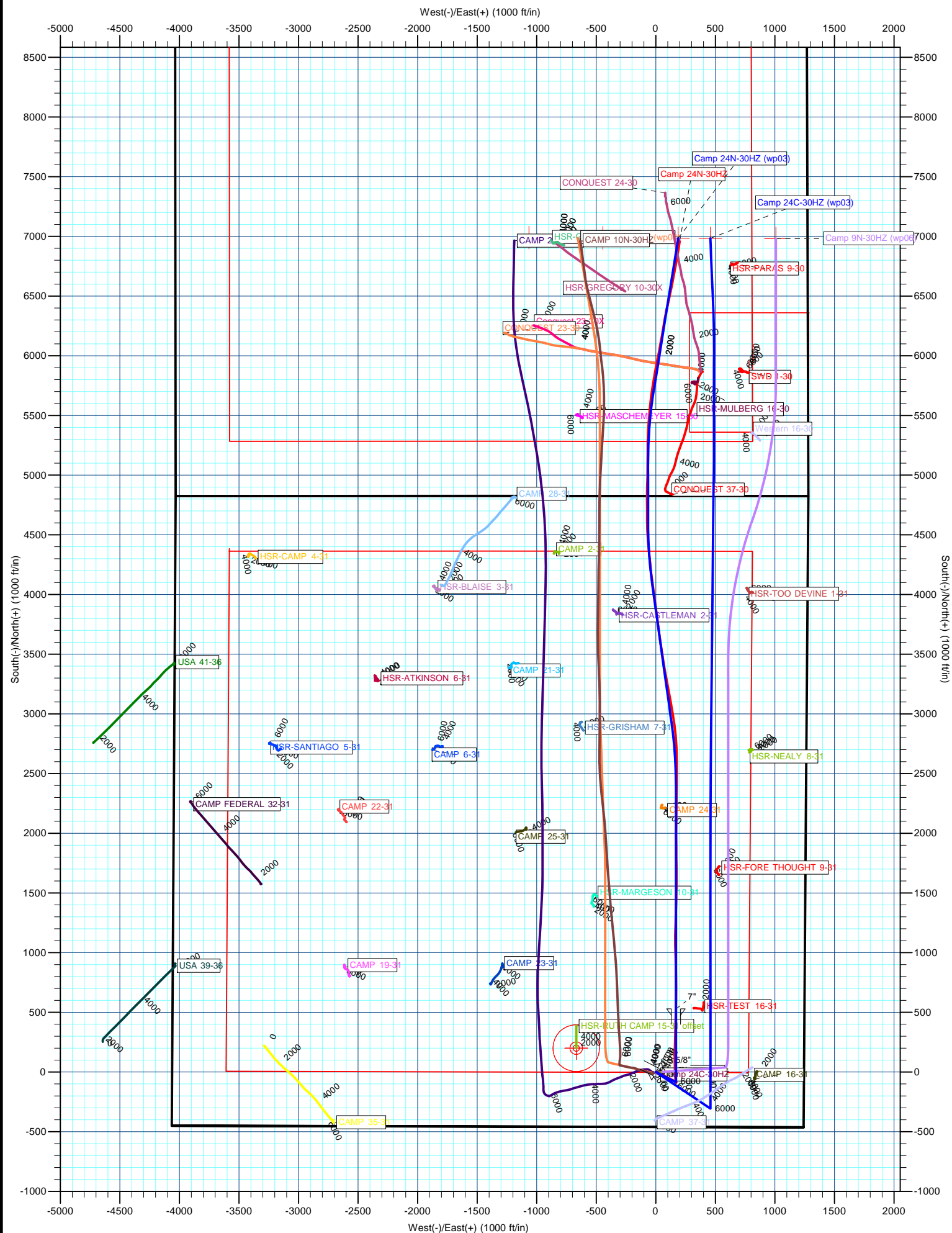
SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
786.00	0.12	116.60	785.99	0.33	1.85	0.00	0.00	0.38
3500.00	0.00	0.00	3499.99	-0.94	4.39	0.00	180.00	-0.82
3782.68	5.65	117.05	3782.21	-7.28	16.80	2.00	117.05	-6.82
5376.00	5.65	117.05	5367.78	-78.66	156.59	0.00	0.00	-74.41
5658.68	0.00	0.27	5650.00	-85.00	169.00	2.00	180.00	-80.41
6508.68	0.00	0.27	6500.00	-85.00	169.00	0.00	0.00	-80.41
6585.23	0.00	0.27	6576.55	-85.00	169.00	0.00	0.27	-80.41
7060.26	47.50	0.00	6999.00	100.90	169.00	10.00	0.00	105.42
7168.09	52.89	0.00	7068.00	183.71	169.00	5.00	0.00	188.20
7539.47	90.03	0.00	7184.01	529.69	169.00	10.00	0.00	534.06
7555.07	90.03	0.00	7184.00	545.29	169.00	0.00	0.00	549.66
7612.70	90.90	0.00	7183.53	602.91	169.00	1.50	0.00	607.26
9410.00	90.90	0.00	7155.40	2400.00	169.00	0.00	0.00	2403.69
9940.78	90.92	352.04	7146.98	2929.01	132.18	1.50	-89.79	2931.51
11098.56	90.92	352.04	7128.43	4075.48	-28.18	0.00	0.00	4073.23
11629.34	90.90	0.00	7120.00	4604.48	-65.00	1.50	90.07	4601.05
12129.34	90.90	0.00	7112.15	5104.42	-65.00	0.00	0.00	5100.80
12739.23	91.02	9.15	7101.92	5711.63	-16.42	1.50	89.18	5709.11
14028.63	91.02	9.15	7079.00	6984.43	188.56	0.00	0.00	6986.97

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
Camp 24N-30HZ BHL	7079.00	6984.43	188.56	40.195117	-104.700897	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3961.00	3962.34	PARKMAN
4359.00	4362.29	SUSSEX
7000.00	7061.74	SHARON SPRINGS
7068.00	7168.09	NIOBRARA A
7092.00	7209.93	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.01	9 5/8"	9-5/8
7184.01	7539.47	7"	7





Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

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

Site		WELD_CAMP 37-31HZ PAD			
Site Position:		Northing:	1,307,943.36 usft	Latitude:	40.175944
From:	Lat/Long	Easting:	3,223,064.93 usft	Longitude:	-104.701706
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.52 °

Well		Camp 24N-30HZ				
Well Position	+N/-S	0.00 ft	Northing:	1,307,943.66 usft	Latitude:	40.175944
	+E/-W	0.00 ft	Easting:	3,223,102.37 usft	Longitude:	-104.701572
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,949.00 ft

Wellbore	Camp 24N-30HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2012	8.68	66.85	52,917

Design	Camp 24N-30HZ				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	355.00	

Survey Program	Date	7/3/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	786.00	Survey #1 (Camp 24N-30HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
948.00	13,978.00	Survey #2 (Camp 24N-30HZ)	MWD	MWD - STANDARD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.51	62.41	100.00	0.21	0.39	0.17	0.51	0.51	0.00	
200.00	0.38	60.57	200.00	0.58	1.08	0.48	0.13	-0.13	-1.84	
300.00	0.26	81.84	299.99	0.77	1.59	0.63	0.17	-0.12	21.27	
400.00	0.29	135.71	399.99	0.62	1.99	0.45	0.25	0.03	53.87	
500.00	0.19	338.28	499.99	0.59	2.11	0.41	0.47	-0.10	-157.43	
600.00	0.19	223.63	599.99	0.63	1.93	0.46	0.32	0.00	-114.65	
700.00	0.09	201.21	699.99	0.44	1.79	0.28	0.11	-0.10	-22.42	
786.00	0.12	116.60	785.99	0.33	1.85	0.17	0.17	0.03	-98.38	
Tie On Point										

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
952.00	0.35	87.16	951.99	0.28	2.51	0.06	0.15	0.14	-17.73
1,044.00	0.45	120.27	1,043.99	0.11	3.10	-0.16	0.27	0.11	35.99
1,134.00	0.45	140.25	1,133.99	-0.34	3.63	-0.65	0.17	0.00	22.20
1,226.00	0.51	175.34	1,225.98	-1.02	3.90	-1.36	0.32	0.07	38.14
1,316.00	0.16	161.80	1,315.98	-1.54	3.97	-1.88	0.40	-0.39	-15.04
1,407.00	0.10	121.35	1,406.98	-1.71	4.07	-2.05	0.12	-0.07	-44.45
1,499.00	0.14	43.59	1,498.98	-1.67	4.22	-2.03	0.17	0.04	-84.52
1,590.00	0.20	82.85	1,589.98	-1.57	4.45	-1.95	0.14	0.07	43.14
1,681.00	0.20	356.57	1,680.98	-1.39	4.60	-1.78	0.30	0.00	-94.81
1,772.00	0.25	318.95	1,771.98	-1.08	4.46	-1.46	0.17	0.05	-41.34
1,864.00	0.22	265.70	1,863.98	-0.94	4.16	-1.30	0.23	-0.03	-57.88
1,958.00	0.60	237.39	1,957.98	-1.22	3.56	-1.53	0.45	0.40	-30.12
2,053.00	0.69	226.71	2,052.97	-1.88	2.73	-2.11	0.16	0.09	-11.24
2,148.00	1.28	297.39	2,147.96	-1.78	1.37	-1.90	1.30	0.62	74.40
2,243.00	0.36	3.75	2,242.95	-1.00	0.44	-1.03	1.24	-0.97	69.85
2,338.00	0.22	331.63	2,337.95	-0.54	0.38	-0.57	0.22	-0.15	-33.81
2,433.00	1.04	239.34	2,432.94	-0.82	-0.45	-0.78	1.13	0.86	-97.15
2,528.00	0.35	96.46	2,527.94	-1.29	-0.90	-1.21	1.41	-0.73	-150.40
2,623.00	0.42	150.50	2,622.94	-1.63	-0.44	-1.58	0.37	0.07	56.88
2,717.00	0.98	171.73	2,716.93	-2.72	-0.16	-2.70	0.65	0.60	22.59
2,812.00	1.25	43.66	2,811.92	-2.78	0.67	-2.82	2.11	0.28	-134.81
2,908.00	1.13	48.39	2,907.90	-1.39	2.10	-1.57	0.16	-0.13	4.93
3,002.00	0.89	57.07	3,001.89	-0.38	3.41	-0.67	0.30	-0.26	9.23
3,097.00	0.53	67.82	3,096.88	0.19	4.44	-0.20	0.40	-0.38	11.32
3,192.00	0.28	102.96	3,191.88	0.30	5.07	-0.14	0.36	-0.26	36.99
3,287.00	0.07	338.84	3,286.88	0.30	5.27	-0.16	0.34	-0.22	-130.65
3,381.00	0.22	279.13	3,380.87	0.39	5.07	-0.06	0.21	0.16	-63.52
3,476.00	2.13	140.01	3,475.85	-0.94	6.03	-1.46	2.42	2.01	-146.44
3,571.00	3.36	137.89	3,570.74	-4.35	9.03	-5.13	1.30	1.29	-2.23
3,666.00	2.48	142.79	3,665.62	-8.06	12.14	-9.08	0.96	-0.93	5.16
3,761.00	2.68	119.00	3,760.53	-10.77	15.33	-12.07	1.14	0.21	-25.04
3,856.00	4.07	111.09	3,855.36	-13.06	20.41	-14.79	1.54	1.46	-8.33
3,951.00	6.35	110.45	3,949.96	-16.11	28.48	-18.53	2.40	2.40	-0.67
4,046.00	6.24	112.16	4,044.39	-19.89	38.19	-23.14	0.23	-0.12	1.80
4,140.00	6.03	112.68	4,137.85	-23.72	47.47	-27.77	0.23	-0.22	0.55
4,235.00	4.68	101.93	4,232.43	-26.45	55.87	-31.22	1.76	-1.42	-11.32
4,330.00	5.64	105.27	4,327.05	-28.48	64.17	-33.96	1.06	1.01	3.52
4,425.00	6.66	121.46	4,421.51	-32.58	73.37	-38.85	2.11	1.07	17.04
4,520.00	4.64	130.49	4,516.04	-37.96	80.99	-44.87	2.32	-2.13	9.51
4,615.00	5.36	125.41	4,610.68	-43.02	87.53	-50.48	0.89	0.76	-5.35
4,710.00	6.67	113.47	4,705.16	-47.79	96.21	-55.99	1.90	1.38	-12.57
4,805.00	6.21	113.84	4,799.56	-52.06	105.97	-61.10	0.49	-0.48	0.39
4,900.00	4.31	107.93	4,894.16	-55.24	114.07	-64.97	2.08	-2.00	-6.22

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,994.00	5.68	111.79	4,987.80	-58.05	121.75	-68.44	1.50	1.46	4.11
5,090.00	6.34	115.52	5,083.27	-62.10	130.94	-73.27	0.80	0.69	3.89
5,184.00	5.68	115.56	5,176.75	-66.35	139.82	-78.27	0.70	-0.70	0.04
5,280.00	6.00	120.43	5,272.26	-70.94	148.43	-83.60	0.61	0.33	5.07
5,375.00	4.70	119.30	5,366.84	-75.36	156.11	-88.67	1.37	-1.37	-1.19
5,470.00	3.50	118.18	5,461.59	-78.63	162.06	-92.45	1.27	-1.26	-1.18
5,565.00	2.60	113.96	5,556.46	-80.87	166.59	-95.08	0.98	-0.95	-4.44
5,660.00	2.14	106.57	5,651.38	-82.26	170.25	-96.77	0.58	-0.48	-7.78
5,754.00	0.99	94.49	5,745.34	-82.82	172.75	-97.55	1.27	-1.22	-12.85
5,849.00	0.16	256.21	5,840.34	-82.92	173.44	-97.71	1.20	-0.87	170.23
5,943.00	0.56	235.28	5,934.34	-83.21	172.93	-97.96	0.44	0.43	-22.27
6,038.00	0.88	205.15	6,029.33	-84.13	172.24	-98.82	0.51	0.34	-31.72
6,133.00	0.99	186.12	6,124.32	-85.61	171.84	-100.25	0.34	0.12	-20.03
6,228.00	1.05	207.84	6,219.30	-87.20	171.35	-101.79	0.41	0.06	22.86
6,322.00	1.11	212.09	6,313.28	-88.73	170.46	-103.24	0.11	0.06	4.52
6,418.00	0.20	244.80	6,409.28	-89.59	169.82	-104.04	0.99	-0.95	34.07
6,525.00	0.55	170.57	6,516.28	-90.17	169.73	-104.62	0.50	0.33	-69.37
6,562.00	0.73	195.89	6,553.27	-90.58	169.70	-105.01	0.89	0.49	68.43
6,593.00	2.11	337.85	6,584.27	-90.24	169.43	-104.65	8.78	4.45	457.94
6,625.00	5.91	344.94	6,616.18	-88.10	168.78	-102.47	11.95	11.88	22.16
6,657.00	10.41	347.97	6,647.85	-83.68	167.74	-97.97	14.12	14.06	9.47
6,688.00	13.67	352.11	6,678.17	-77.31	166.66	-91.53	10.87	10.52	13.35
6,720.00	16.08	356.18	6,709.09	-69.14	165.84	-83.32	8.20	7.53	12.72
6,752.00	17.83	357.18	6,739.70	-59.82	165.31	-74.00	5.54	5.47	3.13
6,784.00	21.62	356.59	6,769.82	-49.04	164.72	-63.21	11.86	11.84	-1.84
6,815.00	25.44	356.02	6,798.23	-36.70	163.91	-50.83	12.34	12.32	-1.84
6,847.00	29.15	355.75	6,826.67	-22.06	162.86	-36.16	11.60	11.59	-0.84
6,878.00	30.46	357.03	6,853.56	-6.68	161.89	-20.76	4.70	4.23	4.13
6,910.00	33.45	357.57	6,880.71	10.23	161.10	-3.84	9.39	9.34	1.69
6,942.00	37.53	358.13	6,906.76	28.79	160.40	14.71	12.79	12.75	1.75
6,973.00	41.48	358.01	6,930.68	48.50	159.74	34.40	12.74	12.74	-0.39
7,005.00	45.59	358.67	6,953.87	70.52	159.11	56.40	12.92	12.84	2.06
7,037.00	48.96	0.53	6,975.58	94.03	158.95	79.82	11.36	10.53	5.81
7,068.00	53.43	1.08	6,995.00	118.18	159.30	103.85	14.49	14.42	1.77
7,100.00	56.91	1.69	7,013.28	144.43	159.93	129.95	10.99	10.88	1.91
7,131.00	60.78	1.51	7,029.31	170.94	160.67	156.30	12.49	12.48	-0.58
7,163.00	64.33	0.90	7,044.06	199.33	161.27	184.53	11.22	11.09	-1.91
7,194.00	67.07	0.55	7,056.81	227.58	161.62	212.64	8.90	8.84	-1.13
7,226.00	69.93	0.86	7,068.54	257.35	161.99	242.26	8.98	8.94	0.97
7,258.00	73.25	1.06	7,078.64	287.70	162.50	272.45	10.39	10.38	0.63
7,289.00	75.87	1.25	7,086.90	317.57	163.10	302.16	8.47	8.45	0.61
7,321.00	78.31	1.75	7,094.05	348.75	163.92	333.15	7.78	7.63	1.56
7,352.00	78.88	1.76	7,100.18	379.13	164.85	363.32	1.84	1.84	0.03

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,384.00	80.58	1.66	7,105.88	410.60	165.79	394.60	5.32	5.31	-0.31
7,416.00	83.48	1.30	7,110.32	442.28	166.61	426.08	9.13	9.06	-1.13
7,447.00	84.61	1.88	7,113.53	473.10	167.46	456.71	4.09	3.65	1.87
7,479.00	84.68	1.24	7,116.52	504.94	168.33	488.36	2.00	0.22	-2.00
7,529.80	87.08	0.85	7,120.17	555.60	169.25	538.74	4.79	4.72	-0.77
7"									
7,580.00	89.45	0.46	7,121.69	605.77	169.83	588.67	4.79	4.72	-0.77
7,671.00	89.14	0.07	7,122.81	696.76	170.25	679.28	0.55	-0.34	-0.43
7,763.00	88.40	359.50	7,124.78	788.74	169.90	770.94	1.02	-0.80	-0.62
7,855.00	90.26	359.33	7,125.86	880.72	168.96	862.66	2.03	2.02	-0.18
7,945.00	89.51	357.98	7,126.04	970.70	166.85	952.47	1.72	-0.83	-1.50
8,037.00	90.68	358.28	7,125.89	1,062.65	163.85	1,044.33	1.31	1.27	0.33
8,127.00	90.62	1.79	7,124.87	1,152.63	163.90	1,133.97	3.90	-0.07	3.90
8,218.00	90.18	0.91	7,124.23	1,243.60	166.05	1,224.40	1.08	-0.48	-0.97
8,310.00	90.18	1.73	7,123.94	1,335.57	168.17	1,315.85	0.89	0.00	0.89
8,401.00	89.75	1.93	7,124.00	1,426.52	171.07	1,406.20	0.52	-0.47	0.22
8,492.00	90.00	1.27	7,124.20	1,517.49	173.61	1,496.60	0.78	0.27	-0.73
8,584.00	90.37	0.17	7,123.90	1,609.48	174.77	1,588.14	1.26	0.40	-1.20
8,675.00	90.68	359.56	7,123.07	1,700.47	174.55	1,678.80	0.75	0.34	-0.67
8,766.00	90.37	358.47	7,122.23	1,791.46	172.99	1,769.58	1.25	-0.34	-1.20
8,857.00	89.88	0.72	7,122.03	1,882.45	172.35	1,860.28	2.53	-0.54	2.47
8,948.00	89.88	359.41	7,122.22	1,973.45	172.45	1,950.92	1.44	0.00	-1.44
9,040.00	90.31	358.99	7,122.07	2,065.44	171.17	2,042.67	0.65	0.47	-0.46
9,132.00	89.82	1.91	7,121.97	2,157.42	171.89	2,134.25	3.22	-0.53	3.17
9,226.00	88.83	0.99	7,123.07	2,251.38	174.27	2,227.64	1.44	-1.05	-0.98
9,321.00	90.49	0.92	7,123.64	2,346.37	175.85	2,322.13	1.75	1.75	-0.07
9,416.00	90.06	0.63	7,123.18	2,441.36	177.13	2,416.64	0.55	-0.45	-0.31
9,511.00	89.88	359.32	7,123.23	2,536.35	177.09	2,511.28	1.39	-0.19	-1.38
9,606.00	89.01	359.81	7,124.15	2,631.34	176.37	2,605.98	1.05	-0.92	0.52
9,701.00	91.23	356.82	7,123.95	2,726.29	173.58	2,700.80	3.92	2.34	-3.15
9,796.00	90.49	354.72	7,122.53	2,821.01	166.57	2,795.78	2.34	-0.78	-2.21
9,891.00	90.86	351.90	7,121.41	2,915.35	155.51	2,890.72	2.99	0.39	-2.97
9,986.00	89.38	350.15	7,121.21	3,009.18	140.69	2,985.48	2.41	-1.56	-1.84
10,081.00	89.51	350.20	7,122.13	3,102.78	124.48	3,080.14	0.15	0.14	0.05
10,176.00	87.35	348.81	7,124.73	3,196.15	107.18	3,174.66	2.70	-2.27	-1.46
10,272.00	89.81	349.37	7,127.11	3,290.38	89.02	3,270.11	2.63	2.56	0.58
10,367.00	91.48	351.20	7,126.04	3,384.00	72.99	3,364.78	2.61	1.76	1.93
10,462.00	91.54	350.75	7,123.54	3,477.79	58.09	3,459.51	0.48	0.06	-0.47
10,557.00	89.75	350.76	7,122.47	3,571.55	42.83	3,554.24	1.88	-1.88	0.01
10,652.00	89.38	353.07	7,123.19	3,665.60	29.47	3,649.09	2.46	-0.39	2.43
10,747.00	86.79	352.46	7,126.36	3,759.78	17.52	3,743.96	2.80	-2.73	-0.64
10,842.00	86.36	352.32	7,132.04	3,853.77	4.96	3,838.69	0.48	-0.45	-0.15
10,938.00	86.98	352.31	7,137.62	3,948.75	-7.86	3,934.42	0.65	0.65	-0.01
11,033.00	86.30	352.43	7,143.18	4,042.75	-20.45	4,029.16	0.73	-0.72	0.13

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,128.00	85.56	352.03	7,149.93	4,136.64	-33.26	4,123.81	0.88	-0.78	-0.42
11,223.00	86.48	355.11	7,156.52	4,230.80	-43.87	4,218.54	3.38	0.97	3.24
11,318.00	85.68	353.68	7,163.02	4,325.12	-53.13	4,313.31	1.72	-0.84	-1.51
11,413.00	88.21	354.78	7,168.08	4,419.49	-62.66	4,408.15	2.90	2.66	1.16
11,507.00	89.08	356.99	7,170.30	4,513.22	-69.40	4,502.11	2.53	0.93	2.35
11,602.00	90.25	359.86	7,170.86	4,608.17	-72.01	4,596.93	3.26	1.23	3.02
11,698.00	89.01	359.02	7,171.48	4,704.16	-72.95	4,692.63	1.56	-1.29	-0.88
11,793.00	90.62	359.86	7,171.78	4,799.15	-73.88	4,787.34	1.91	1.69	0.88
11,888.00	90.68	1.94	7,170.71	4,894.13	-72.39	4,881.83	2.19	0.06	2.19
11,983.00	90.86	1.17	7,169.43	4,989.08	-69.81	4,976.20	0.83	0.19	-0.81
12,079.00	90.31	0.67	7,168.45	5,085.07	-68.27	5,071.68	0.77	-0.57	-0.52
12,174.00	90.31	359.90	7,167.94	5,180.06	-67.80	5,166.28	0.81	0.00	-0.81
12,269.00	89.38	0.74	7,168.19	5,275.06	-67.27	5,260.87	1.32	-0.98	0.88
12,364.00	88.34	2.37	7,170.08	5,370.00	-64.69	5,355.22	2.03	-1.09	1.72
12,459.00	89.81	5.82	7,171.62	5,464.73	-57.91	5,449.00	3.95	1.55	3.63
12,555.00	89.38	4.20	7,172.30	5,560.36	-49.52	5,543.53	1.75	-0.45	-1.69
12,651.00	90.18	7.44	7,172.66	5,655.85	-39.79	5,637.81	3.48	0.83	3.38
12,746.00	90.12	10.36	7,172.42	5,749.69	-25.09	5,730.02	3.07	-0.06	3.07
12,842.00	89.14	8.63	7,173.03	5,844.37	-9.26	5,822.96	2.07	-1.02	-1.80
12,936.00	90.74	11.92	7,173.13	5,936.85	7.50	5,913.63	3.89	1.70	3.50
13,031.00	92.22	10.75	7,170.68	6,029.96	26.17	6,004.76	1.99	1.56	-1.23
13,126.00	93.95	10.72	7,165.57	6,123.16	43.84	6,096.06	1.82	1.82	-0.03
13,220.00	93.83	9.12	7,159.19	6,215.54	59.99	6,186.68	1.70	-0.13	-1.70
13,315.00	92.28	9.69	7,154.13	6,309.12	75.50	6,278.56	1.74	-1.63	0.60
13,410.00	93.51	12.90	7,149.33	6,402.15	94.08	6,369.62	3.61	1.29	3.38
13,504.00	93.02	12.33	7,143.97	6,493.73	114.57	6,459.07	0.80	-0.52	-0.61
13,600.00	93.52	11.49	7,138.50	6,587.51	134.35	6,550.77	1.02	0.52	-0.88
13,695.00	92.77	10.89	7,133.29	6,680.56	152.76	6,641.86	1.01	-0.79	-0.63
13,790.00	92.09	9.99	7,129.26	6,773.91	169.96	6,733.35	1.19	-0.72	-0.95
13,884.00	91.32	9.55	7,126.46	6,866.50	185.90	6,824.20	0.94	-0.82	-0.47
13,923.00	90.86	9.09	7,125.72	6,904.98	192.22	6,861.98	1.67	-1.18	-1.18
Final MWD Survey									
13,978.00	90.86	9.09	7,124.89	6,959.28	200.90	6,915.32	0.00	0.00	0.00
Projection to Bit @ TD									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,529.80	7,120.17	7"	7	8-3/4

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
786.00	785.99	0.33	1.85	Tie On Point
13,923.00	7,125.72	6,904.98	192.22	Final MWD Survey
13,978.00	7,124.89	6,959.28	200.90	Projection to Bit @ TD

Checked By: _____ Approved By: _____ Date: _____

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 37-31HZ PAD

Camp 24N-30HZ

Camp 24N-30HZ

Design: Camp 24N-30HZ

Survey Report - Geographic

03 July, 2012

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

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

Site	WELD_CAMP 37-31HZ PAD			
Site Position:		Northing:	1,307,943.36 usft	Latitude: 40.175944
From:	Lat/Long	Easting:	3,223,064.93 usft	Longitude: -104.701706
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.52 °

Well	Camp 24N-30HZ			
Well Position	+N/-S	0.00 ft	Northing:	1,307,943.66 usft
	+E/-W	0.00 ft	Easting:	3,223,102.37 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
			Ground Level:	4,949.00 ft

Wellbore	Camp 24N-30HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2012	8.68	66.85	52,917

Design	Camp 24N-30HZ			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	355.00

Survey Program	Date	7/3/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	786.00	Survey #1 (Camp 24N-30HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S
948.00	13,978.00	Survey #2 (Camp 24N-30HZ)	MWD	MWD - STANDARD

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,307,943.66	3,223,102.37	40.175944	-104.701572
100.00	0.51	62.41	100.00	0.21	0.39	1,307,943.87	3,223,102.76	40.175945	-104.701571
200.00	0.38	60.57	200.00	0.58	1.08	1,307,944.25	3,223,103.44	40.175946	-104.701568
300.00	0.26	81.84	299.99	0.77	1.59	1,307,944.45	3,223,103.96	40.175946	-104.701567
400.00	0.29	135.71	399.99	0.62	1.99	1,307,944.30	3,223,104.36	40.175946	-104.701565
500.00	0.19	338.28	499.99	0.59	2.11	1,307,944.28	3,223,104.47	40.175946	-104.701565
600.00	0.19	223.63	599.99	0.63	1.93	1,307,944.31	3,223,104.30	40.175946	-104.701565
700.00	0.09	201.21	699.99	0.44	1.79	1,307,944.12	3,223,104.16	40.175945	-104.701566
786.00	0.12	116.60	785.99	0.33	1.85	1,307,944.01	3,223,104.21	40.175945	-104.701566
Tie On Point									
952.00	0.35	87.16	951.99	0.28	2.51	1,307,943.97	3,223,104.88	40.175945	-104.701563

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,044.00	0.45	120.27	1,043.99	0.11	3.10	1,307,943.80	3,223,105.47	40.175944	-104.701561
1,134.00	0.45	140.25	1,133.99	-0.34	3.63	1,307,943.36	3,223,106.00	40.175943	-104.701559
1,226.00	0.51	175.34	1,225.98	-1.02	3.90	1,307,942.67	3,223,106.28	40.175941	-104.701558
1,316.00	0.16	161.80	1,315.98	-1.54	3.97	1,307,942.16	3,223,106.35	40.175940	-104.701558
1,407.00	0.10	121.35	1,406.98	-1.71	4.07	1,307,942.00	3,223,106.46	40.175939	-104.701558
1,499.00	0.14	43.59	1,498.98	-1.67	4.22	1,307,942.04	3,223,106.61	40.175939	-104.701557
1,590.00	0.20	82.85	1,589.98	-1.57	4.45	1,307,942.14	3,223,106.84	40.175940	-104.701556
1,681.00	0.20	356.57	1,680.98	-1.39	4.60	1,307,942.32	3,223,106.99	40.175940	-104.701556
1,772.00	0.25	318.95	1,771.98	-1.08	4.46	1,307,942.63	3,223,106.84	40.175941	-104.701556
1,864.00	0.22	265.70	1,863.98	-0.94	4.16	1,307,942.76	3,223,106.53	40.175941	-104.701557
1,958.00	0.60	237.39	1,957.98	-1.22	3.56	1,307,942.48	3,223,105.94	40.175941	-104.701560
2,053.00	0.69	226.71	2,052.97	-1.88	2.73	1,307,941.81	3,223,105.11	40.175939	-104.701563
2,148.00	1.28	297.39	2,147.96	-1.78	1.37	1,307,941.89	3,223,103.75	40.175939	-104.701567
2,243.00	0.36	3.75	2,242.95	-1.00	0.44	1,307,942.67	3,223,102.82	40.175941	-104.701571
2,338.00	0.22	331.63	2,337.95	-0.54	0.38	1,307,943.13	3,223,102.75	40.175943	-104.701571
2,433.00	1.04	239.34	2,432.94	-0.82	-0.45	1,307,942.84	3,223,101.93	40.175942	-104.701574
2,528.00	0.35	96.46	2,527.94	-1.29	-0.90	1,307,942.37	3,223,101.48	40.175940	-104.701576
2,623.00	0.42	150.50	2,622.94	-1.63	-0.44	1,307,942.03	3,223,101.94	40.175940	-104.701574
2,717.00	0.98	171.73	2,716.93	-2.72	-0.16	1,307,940.94	3,223,102.24	40.175937	-104.701573
2,812.00	1.25	43.66	2,811.92	-2.78	0.67	1,307,940.89	3,223,103.07	40.175936	-104.701570
2,908.00	1.13	48.39	2,907.90	-1.39	2.10	1,307,942.29	3,223,104.49	40.175940	-104.701565
3,002.00	0.89	57.07	3,001.89	-0.38	3.41	1,307,943.32	3,223,105.78	40.175943	-104.701560
3,097.00	0.53	67.82	3,096.88	0.19	4.44	1,307,943.89	3,223,106.80	40.175945	-104.701556
3,192.00	0.28	102.96	3,191.88	0.30	5.07	1,307,944.01	3,223,107.44	40.175945	-104.701554
3,287.00	0.07	338.84	3,286.88	0.30	5.27	1,307,944.02	3,223,107.64	40.175945	-104.701553
3,381.00	0.22	279.13	3,380.87	0.39	5.07	1,307,944.10	3,223,107.44	40.175945	-104.701554
3,476.00	2.13	140.01	3,475.85	-0.94	6.03	1,307,942.78	3,223,108.41	40.175941	-104.701551
3,571.00	3.36	137.89	3,570.74	-4.35	9.03	1,307,939.39	3,223,111.44	40.175932	-104.701540
3,666.00	2.48	142.79	3,665.62	-8.06	12.14	1,307,935.72	3,223,114.58	40.175922	-104.701529
3,761.00	2.68	119.00	3,760.53	-10.77	15.33	1,307,933.03	3,223,117.79	40.175914	-104.701517
3,856.00	4.07	111.09	3,855.36	-13.06	20.41	1,307,930.79	3,223,122.90	40.175908	-104.701499
3,951.00	6.35	110.45	3,949.96	-16.11	28.48	1,307,927.81	3,223,131.00	40.175900	-104.701470
4,046.00	6.24	112.16	4,044.39	-19.89	38.19	1,307,924.12	3,223,140.74	40.175889	-104.701436
4,140.00	6.03	112.68	4,137.85	-23.72	47.47	1,307,920.37	3,223,150.06	40.175879	-104.701402
4,235.00	4.68	101.93	4,232.43	-26.45	55.87	1,307,917.72	3,223,158.48	40.175871	-104.701372
4,330.00	5.64	105.27	4,327.05	-28.48	64.17	1,307,915.76	3,223,166.79	40.175866	-104.701343
4,425.00	6.66	121.46	4,421.51	-32.58	73.37	1,307,911.74	3,223,176.03	40.175855	-104.701310
4,520.00	4.64	130.49	4,516.04	-37.96	80.99	1,307,906.44	3,223,183.70	40.175840	-104.701282
4,615.00	5.36	125.41	4,610.68	-43.02	87.53	1,307,901.43	3,223,190.29	40.175826	-104.701259
4,710.00	6.67	113.47	4,705.16	-47.79	96.21	1,307,896.74	3,223,199.01	40.175813	-104.701228
4,805.00	6.21	113.84	4,799.56	-52.06	105.97	1,307,892.56	3,223,208.80	40.175801	-104.701193
4,900.00	4.31	107.93	4,894.16	-55.24	114.07	1,307,889.45	3,223,216.93	40.175792	-104.701164
4,994.00	5.68	111.79	4,987.80	-58.05	121.75	1,307,886.71	3,223,224.64	40.175785	-104.701137
5,090.00	6.34	115.52	5,083.27	-62.10	130.94	1,307,882.74	3,223,233.87	40.175774	-104.701104
5,184.00	5.68	115.56	5,176.75	-66.35	139.82	1,307,878.58	3,223,242.78	40.175762	-104.701072
5,280.00	6.00	120.43	5,272.26	-70.94	148.43	1,307,874.07	3,223,251.44	40.175749	-104.701041
5,375.00	4.70	119.30	5,366.84	-75.36	156.11	1,307,869.72	3,223,259.15	40.175737	-104.701014
5,470.00	3.50	118.18	5,461.59	-78.63	162.06	1,307,866.50	3,223,265.13	40.175728	-104.700992
5,565.00	2.60	113.96	5,556.46	-80.87	166.59	1,307,864.29	3,223,269.68	40.175722	-104.700976
5,660.00	2.14	106.57	5,651.38	-82.26	170.25	1,307,862.95	3,223,273.36	40.175718	-104.700963
5,754.00	0.99	94.49	5,745.34	-82.82	172.75	1,307,862.40	3,223,275.86	40.175717	-104.700954
5,849.00	0.16	256.21	5,840.34	-82.92	173.44	1,307,862.31	3,223,276.55	40.175716	-104.700952
5,943.00	0.56	235.28	5,934.34	-83.21	172.93	1,307,862.02	3,223,276.04	40.175716	-104.700953
6,038.00	0.88	205.15	6,029.33	-84.13	172.24	1,307,861.09	3,223,275.36	40.175713	-104.700956
6,133.00	0.99	186.12	6,124.32	-85.61	171.84	1,307,859.61	3,223,274.98	40.175709	-104.700957

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,228.00	1.05	207.84	6,219.30	-87.20	171.35	1,307,858.02	3,223,274.50	40.175705	-104.700959
6,322.00	1.11	212.09	6,313.28	-88.73	170.46	1,307,856.48	3,223,273.62	40.175700	-104.700962
6,418.00	0.20	244.80	6,409.28	-89.59	169.82	1,307,855.61	3,223,272.99	40.175698	-104.700965
6,525.00	0.55	170.57	6,516.28	-90.17	169.73	1,307,855.02	3,223,272.91	40.175696	-104.700965
6,562.00	0.73	195.89	6,553.27	-90.58	169.70	1,307,854.62	3,223,272.87	40.175695	-104.700965
6,593.00	2.11	337.85	6,584.27	-90.24	169.43	1,307,854.96	3,223,272.60	40.175696	-104.700966
6,625.00	5.91	344.94	6,616.18	-88.10	168.78	1,307,857.09	3,223,271.93	40.175702	-104.700968
6,657.00	10.41	347.97	6,647.85	-83.68	167.74	1,307,861.50	3,223,270.86	40.175714	-104.700972
6,688.00	13.67	352.11	6,678.17	-77.31	166.66	1,307,867.86	3,223,269.72	40.175732	-104.700976
6,720.00	16.08	356.18	6,709.09	-69.14	165.84	1,307,876.02	3,223,268.83	40.175754	-104.700979
6,752.00	17.83	357.18	6,739.70	-59.82	165.31	1,307,885.33	3,223,268.21	40.175780	-104.700981
6,784.00	21.62	356.59	6,769.82	-49.04	164.72	1,307,896.11	3,223,267.52	40.175809	-104.700983
6,815.00	25.44	356.02	6,798.23	-36.70	163.91	1,307,908.45	3,223,266.61	40.175843	-104.700986
6,847.00	29.15	355.75	6,826.67	-22.06	162.86	1,307,923.07	3,223,265.42	40.175883	-104.700989
6,878.00	30.46	357.03	6,853.56	-6.68	161.89	1,307,938.44	3,223,264.32	40.175926	-104.700993
6,910.00	33.45	357.57	6,880.71	10.23	161.10	1,307,955.35	3,223,263.37	40.175972	-104.700996
6,942.00	37.53	358.13	6,906.76	28.79	160.40	1,307,973.90	3,223,262.51	40.176023	-104.700998
6,973.00	41.48	358.01	6,930.68	48.50	159.74	1,307,993.60	3,223,261.67	40.176077	-104.701001
7,005.00	45.59	358.67	6,953.87	70.52	159.11	1,308,015.62	3,223,260.84	40.176138	-104.701003
7,037.00	48.96	0.53	6,975.58	94.03	158.95	1,308,039.12	3,223,260.47	40.176202	-104.701003
7,068.00	53.43	1.08	6,995.00	118.18	159.30	1,308,063.27	3,223,260.60	40.176268	-104.701002
7,100.00	56.91	1.69	7,013.28	144.43	159.93	1,308,089.53	3,223,261.00	40.176340	-104.701000
7,131.00	60.78	1.51	7,029.31	170.94	160.67	1,308,116.05	3,223,261.50	40.176413	-104.700997
7,163.00	64.33	0.90	7,044.06	199.33	161.27	1,308,144.44	3,223,261.84	40.176491	-104.700995
7,194.00	67.07	0.55	7,056.81	227.58	161.62	1,308,172.69	3,223,261.94	40.176569	-104.700994
7,226.00	69.93	0.86	7,068.54	257.35	161.99	1,308,202.46	3,223,262.04	40.176650	-104.700993
7,258.00	73.25	1.06	7,078.64	287.70	162.50	1,308,232.82	3,223,262.27	40.176734	-104.700991
7,289.00	75.87	1.25	7,086.90	317.57	163.10	1,308,262.69	3,223,262.61	40.176816	-104.700989
7,321.00	78.31	1.75	7,094.05	348.75	163.92	1,308,293.88	3,223,263.14	40.176901	-104.700986
7,352.00	78.88	1.76	7,100.18	379.13	164.85	1,308,324.26	3,223,263.80	40.176985	-104.700982
7,384.00	80.58	1.66	7,105.88	410.60	165.79	1,308,355.74	3,223,264.46	40.177071	-104.700979
7,416.00	83.48	1.30	7,110.32	442.28	166.61	1,308,387.42	3,223,264.99	40.177158	-104.700976
7,447.00	84.61	1.88	7,113.53	473.10	167.46	1,308,418.25	3,223,265.57	40.177243	-104.700973
7,479.00	84.68	1.24	7,116.52	504.94	168.33	1,308,450.10	3,223,266.15	40.177330	-104.700970
7,529.80	87.08	0.85	7,120.17	555.60	169.25	1,308,500.77	3,223,266.61	40.177469	-104.700967
7"									
7,580.00	89.45	0.46	7,121.69	605.77	169.83	1,308,550.94	3,223,266.74	40.177607	-104.700964
7,671.00	89.14	0.07	7,122.81	696.76	170.25	1,308,641.93	3,223,266.34	40.177857	-104.700963
7,763.00	88.40	359.50	7,124.78	788.74	169.90	1,308,733.90	3,223,265.16	40.178109	-104.700964
7,855.00	90.26	359.33	7,125.86	880.72	168.96	1,308,825.87	3,223,263.40	40.178362	-104.700968
7,945.00	89.51	357.98	7,126.04	970.70	166.85	1,308,915.82	3,223,260.47	40.178609	-104.700975
8,037.00	90.68	358.28	7,125.89	1,062.65	163.85	1,309,007.74	3,223,256.64	40.178861	-104.700986
8,127.00	90.62	1.79	7,124.87	1,152.63	163.90	1,309,097.72	3,223,255.89	40.179108	-104.700986
8,218.00	90.18	0.91	7,124.23	1,243.60	166.05	1,309,188.70	3,223,257.21	40.179358	-104.700978
8,310.00	90.18	1.73	7,123.94	1,335.57	168.17	1,309,280.69	3,223,258.50	40.179610	-104.700970
8,401.00	89.75	1.93	7,124.00	1,426.52	171.07	1,309,371.67	3,223,260.59	40.179860	-104.700960
8,492.00	90.00	1.27	7,124.20	1,517.49	173.61	1,309,462.65	3,223,262.31	40.180110	-104.700951
8,584.00	90.37	0.17	7,123.90	1,609.48	174.77	1,309,554.65	3,223,262.64	40.180362	-104.700947
8,675.00	90.68	359.56	7,123.07	1,700.47	174.55	1,309,645.64	3,223,261.61	40.180612	-104.700948
8,766.00	90.37	358.47	7,122.23	1,791.46	172.99	1,309,736.60	3,223,259.22	40.180862	-104.700953
8,857.00	89.88	0.72	7,122.03	1,882.45	172.35	1,309,827.58	3,223,257.76	40.181112	-104.700955
8,948.00	89.88	359.41	7,122.22	1,973.45	172.45	1,309,918.58	3,223,257.05	40.181361	-104.700955
9,040.00	90.31	358.99	7,122.07	2,065.44	171.17	1,310,010.55	3,223,254.93	40.181614	-104.700960
9,132.00	89.82	1.91	7,121.97	2,157.42	171.89	1,310,102.54	3,223,254.83	40.181866	-104.700957
9,226.00	88.83	0.99	7,123.07	2,251.38	174.27	1,310,196.52	3,223,256.36	40.182124	-104.700949

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,321.00	90.49	0.92	7,123.64	2,346.37	175.85	1,310,291.51	3,223,257.09	40.182385	-104.700943
9,416.00	90.06	0.63	7,123.18	2,441.36	177.13	1,310,386.51	3,223,257.52	40.182646	-104.700938
9,511.00	89.88	359.32	7,123.23	2,536.35	177.09	1,310,481.50	3,223,256.62	40.182907	-104.700938
9,606.00	89.01	359.81	7,124.15	2,631.34	176.37	1,310,576.49	3,223,255.04	40.183167	-104.700941
9,701.00	91.23	356.82	7,123.95	2,726.29	173.58	1,310,671.40	3,223,251.40	40.183428	-104.700951
9,796.00	90.49	354.72	7,122.53	2,821.01	166.57	1,310,766.06	3,223,243.54	40.183688	-104.700976
9,891.00	90.86	351.90	7,121.41	2,915.35	155.51	1,310,860.29	3,223,231.62	40.183947	-104.701016
9,986.00	89.38	350.15	7,121.21	3,009.18	140.69	1,310,953.98	3,223,215.96	40.184205	-104.701069
10,081.00	89.51	350.20	7,122.13	3,102.78	124.48	1,311,047.43	3,223,198.91	40.184462	-104.701127
10,176.00	87.35	348.81	7,124.73	3,196.15	107.18	1,311,140.64	3,223,180.77	40.184718	-104.701189
10,272.00	89.81	349.37	7,127.11	3,290.38	89.02	1,311,234.70	3,223,161.76	40.184976	-104.701254
10,367.00	91.48	351.20	7,126.04	3,384.00	72.99	1,311,328.18	3,223,144.89	40.185234	-104.701311
10,462.00	91.54	350.75	7,123.54	3,477.79	58.09	1,311,421.83	3,223,129.15	40.185491	-104.701364
10,557.00	89.75	350.76	7,122.47	3,571.55	42.83	1,311,515.45	3,223,113.05	40.185748	-104.701419
10,652.00	89.38	353.07	7,123.19	3,665.60	29.47	1,311,609.37	3,223,098.84	40.186007	-104.701467
10,747.00	86.79	352.46	7,126.36	3,759.78	17.52	1,311,703.44	3,223,086.04	40.186265	-104.701510
10,842.00	86.36	352.32	7,132.04	3,853.77	4.96	1,311,797.32	3,223,072.63	40.186523	-104.701555
10,938.00	86.98	352.31	7,137.62	3,948.75	-7.86	1,311,892.18	3,223,058.96	40.186784	-104.701600
11,033.00	86.30	352.43	7,143.18	4,042.75	-20.45	1,311,986.05	3,223,045.52	40.187042	-104.701645
11,128.00	85.56	352.03	7,149.93	4,136.64	-33.26	1,312,079.82	3,223,031.87	40.187300	-104.701691
11,223.00	86.48	355.11	7,156.52	4,230.80	-43.87	1,312,173.89	3,223,020.41	40.187558	-104.701729
11,318.00	85.68	353.68	7,163.02	4,325.12	-53.13	1,312,268.12	3,223,010.30	40.187817	-104.701762
11,413.00	88.21	354.78	7,168.08	4,419.49	-62.66	1,312,362.41	3,222,999.92	40.188076	-104.701797
11,507.00	89.08	356.99	7,170.30	4,513.22	-69.40	1,312,456.07	3,222,992.33	40.188333	-104.701821
11,602.00	90.25	359.86	7,170.86	4,608.17	-72.01	1,312,550.99	3,222,988.87	40.188594	-104.701830
11,698.00	89.01	359.02	7,171.48	4,704.16	-72.95	1,312,646.97	3,222,987.07	40.188857	-104.701833
11,793.00	90.62	359.86	7,171.78	4,799.15	-73.88	1,312,741.95	3,222,985.28	40.189118	-104.701837
11,888.00	90.68	1.94	7,170.71	4,894.13	-72.39	1,312,836.93	3,222,985.92	40.189379	-104.701831
11,983.00	90.86	1.17	7,169.43	4,989.08	-69.81	1,312,931.91	3,222,987.64	40.189640	-104.701822
12,079.00	90.31	0.67	7,168.45	5,085.07	-68.27	1,313,027.90	3,222,988.32	40.189903	-104.701817
12,174.00	90.31	359.90	7,167.94	5,180.06	-67.80	1,313,122.90	3,222,987.94	40.190164	-104.701815
12,269.00	89.38	0.74	7,168.19	5,275.06	-67.27	1,313,217.89	3,222,987.61	40.190425	-104.701813
12,364.00	88.34	2.37	7,170.08	5,370.00	-64.69	1,313,312.86	3,222,989.33	40.190685	-104.701804
12,459.00	89.81	5.82	7,171.62	5,464.73	-57.91	1,313,407.64	3,222,995.26	40.190945	-104.701780
12,555.00	89.38	4.20	7,172.30	5,560.36	-49.52	1,313,503.34	3,223,002.78	40.191208	-104.701750
12,651.00	90.18	7.44	7,172.66	5,655.85	-39.79	1,313,598.91	3,223,011.66	40.191470	-104.701715
12,746.00	90.12	10.36	7,172.42	5,749.69	-25.09	1,313,692.89	3,223,025.51	40.191728	-104.701662
12,842.00	89.14	8.63	7,173.03	5,844.37	-9.26	1,313,787.70	3,223,040.49	40.191988	-104.701605
12,936.00	90.74	11.92	7,173.13	5,936.85	7.50	1,313,880.33	3,223,056.42	40.192241	-104.701545
13,031.00	92.22	10.75	7,170.68	6,029.96	26.17	1,313,973.60	3,223,074.25	40.192497	-104.701479
13,126.00	93.95	10.72	7,165.57	6,123.16	43.84	1,314,066.96	3,223,091.08	40.192753	-104.701415
13,220.00	93.83	9.12	7,159.19	6,215.54	59.99	1,314,159.48	3,223,106.40	40.193006	-104.701358
13,315.00	92.28	9.69	7,154.13	6,309.12	75.50	1,314,253.20	3,223,121.06	40.193263	-104.701302
13,410.00	93.51	12.90	7,149.33	6,402.15	94.08	1,314,346.39	3,223,138.80	40.193519	-104.701236
13,504.00	93.02	12.33	7,143.97	6,493.73	114.57	1,314,438.15	3,223,158.47	40.193770	-104.701162
13,600.00	93.52	11.49	7,138.50	6,587.51	134.35	1,314,532.11	3,223,177.40	40.194028	-104.701091
13,695.00	92.77	10.89	7,133.29	6,680.56	152.76	1,314,625.32	3,223,194.97	40.194283	-104.701025
13,790.00	92.09	9.99	7,129.26	6,773.91	169.96	1,314,718.81	3,223,211.33	40.194539	-104.700964
13,884.00	91.32	9.55	7,126.46	6,866.50	185.90	1,314,811.55	3,223,226.44	40.194793	-104.700907
13,923.00	90.86	9.09	7,125.72	6,904.98	192.22	1,314,850.08	3,223,232.41	40.194899	-104.700884
Final MWD Survey									
13,978.00	90.86	9.09	7,124.89	6,959.28	200.90	1,314,904.46	3,223,240.61	40.195048	-104.700853
Projection to Bit @ TD									

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well Camp 24N-30HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 4949' GL @ 4974.00ft
Site:	WELD_CAMP 37-31HZ PAD	MD Reference:	25' RKB + 4949' GL @ 4974.00ft
Well:	Camp 24N-30HZ	North Reference:	True
Wellbore:	Camp 24N-30HZ	Survey Calculation Method:	Minimum Curvature
Design:	Camp 24N-30HZ	Database:	edmp

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,529.80	7,120.17	7"	7	8-3/4

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
786.00	785.99	0.33	1.85	Tie On Point
13,923.00	7,125.72	6,904.98	192.22	Final MWD Survey
13,978.00	7,124.89	6,959.28	200.90	Projection to Bit @ TD

Checked By: _____ Approved By: _____ Date: _____