

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_WEICHEL 3 PAD**

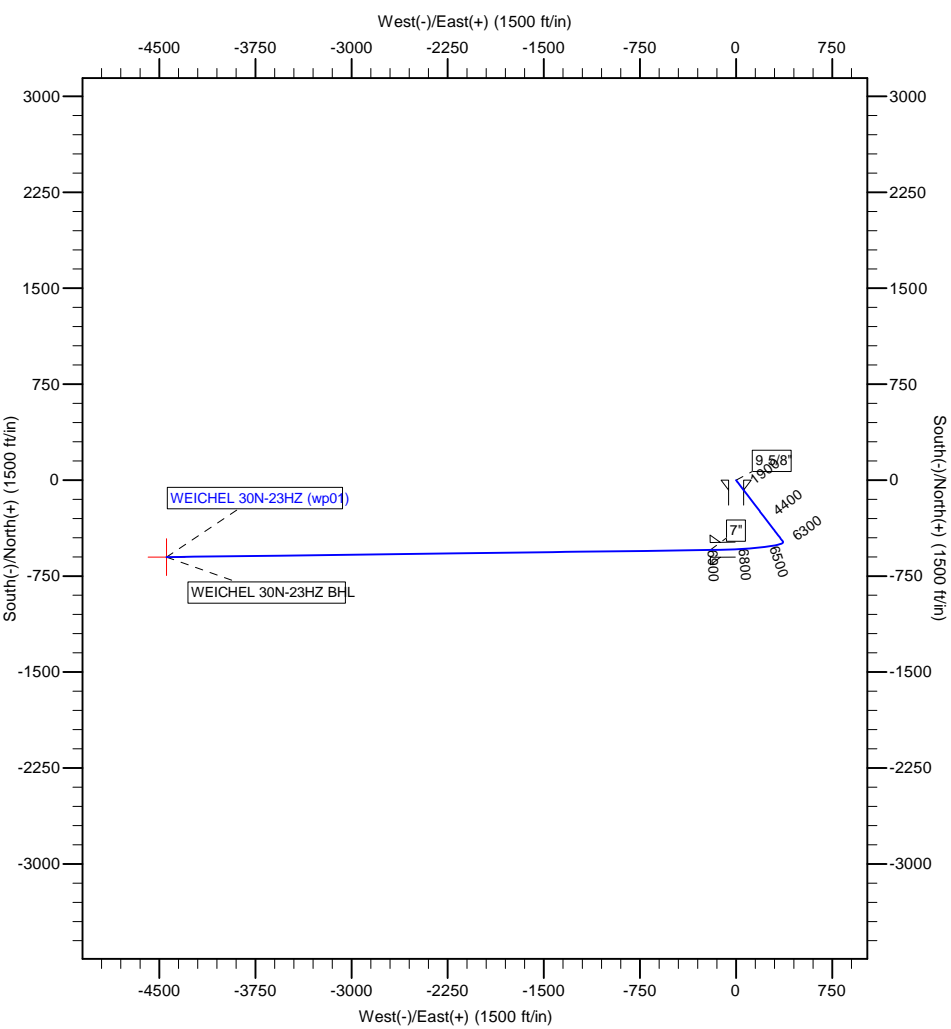
**WEICHEL 30N-23HZ**

**WEICHEL 30N-23HZ**

**Plan: WEICHEL 30N-23HZ (wp01)**

## **Standard Planning Report**

**05 December, 2011**



**Azimuths to True North**  
 Magnetic North: 8.71°  
**Magnetic Field**  
 Strength: 52963.1nT  
 Dip Angle: 66.84°  
 Date: 11/9/2011  
 Model: IGRF2010



**Project:** COLORADO NORTHERN ZONE - 83  
**Site:** WELD WEICHEL 3 PAD  
**Well:** WEICHEL 30N-23HZ  
**Wellbore:** WEICHEL 30N-23HZ  
**Section:** SHL  
**Design:** WEICHEL 30N-23HZ (wp01)  
**Latitude:** 40.132618  
**Longitude:** -104.623106  
**GL:** 4879.00  
**KB:** GL + RKB @ 4896.00ft

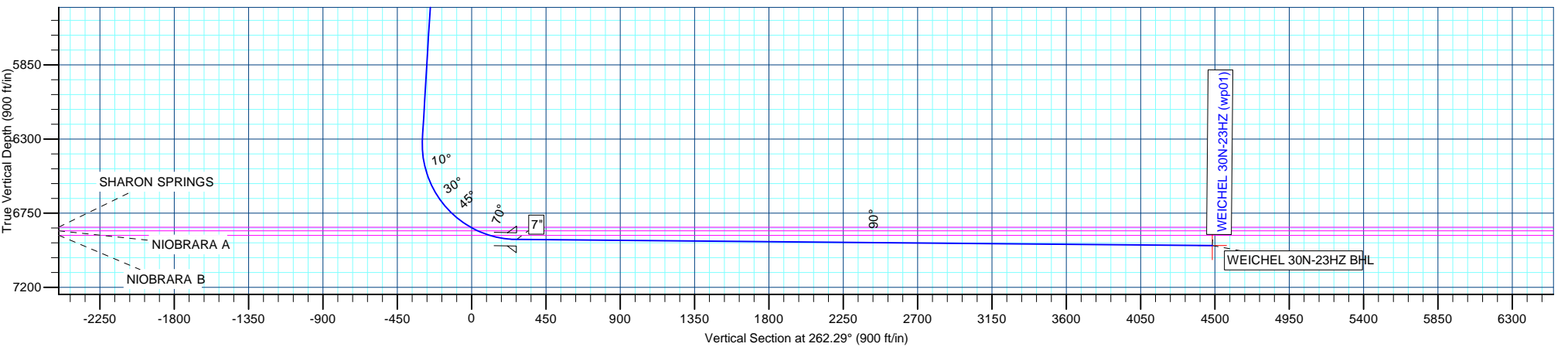
WELL DETAILS: WEICHEL 30N-23HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4879.00 Latitude 40.132618	Longitude -104.623106	Slot
0.00	0.00	1292368.75	3245183.28			

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1442.26	6.85	142.68	1441.44	-16.24	12.38	2.00	142.68	-10.09
6333.87	6.85	142.68	6298.19	-479.88	365.85	0.00	0.00	-298.18
7269.75	89.52	269.22	6909.00	-546.00	-200.00	10.00	126.39	271.43
7273.34	89.50	269.25	6909.03	-546.05	-203.59	1.00	116.38	274.99
11513.37	89.50	269.25	6946.00	-601.38	-4443.10	0.00	0.00	4483.62

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
WEICHEL 30N-23HZ BHL	6946.00	-601.38	-4443.10	40.130966	-104.638996	Point	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4006.00	4025.23	PARKMAN
4318.00	4339.47	SUSSEX
6835.00	6979.44	SHARON SPRINGS
6857.00	7027.99	NIOBRARA A
6885.00	7107.73	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
6909.00	7269.75	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 30N-23HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4896.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4896.00ft
<b>Site:</b>	WELD_WEICHEL 3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 30N-23HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 30N-23HZ		
<b>Design:</b>	WEICHEL 30N-23HZ (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		

<b>Site</b>	WELD_WEICHEL 3 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,292,398.97 usft	<b>Latitude:</b> 40.132701
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,245,181.03 usft	<b>Longitude:</b> -104.623113
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.57 °

<b>Well</b>	WEICHEL 30N-23HZ			
<b>Well Position</b>	<b>+N/-S</b>	-30.24 ft	<b>Northing:</b>	1,292,368.75 usft
	<b>+E/-W</b>	1.96 ft	<b>Easting:</b>	3,245,183.28 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,879.00 ft

<b>Wellbore</b>	WEICHEL 30N-23HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/9/2011	8.71	66.84	52,963

<b>Design</b>	WEICHEL 30N-23HZ (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	262.29

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
1,442.26	6.85	142.68	1,441.44	-16.24	12.38	2.00	2.00	0.00	142.68	
6,333.87	6.85	142.68	6,298.19	-479.88	365.85	0.00	0.00	0.00	0.00	
7,269.75	89.52	269.22	6,909.00	-546.00	-200.00	10.00	8.83	13.52	126.39	
7,273.34	89.50	269.25	6,909.03	-546.05	-203.59	1.00	-0.44	0.90	116.38	
11,513.37	89.50	269.25	6,946.00	-601.38	-4,443.10	0.00	0.00	0.00	0.00	WEICHEL 30N-23HZ

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 30N-23HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4896.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4896.00ft
<b>Site:</b>	WELD_WEICHEL 3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 30N-23HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 30N-23HZ		
<b>Design:</b>	WEICHEL 30N-23HZ (wp01)		

Planned 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	0.00	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	2.00	142.68	1,199.98	-1.39	1.06	-0.86	2.00	2.00	0.00
1,300.00	4.00	142.68	1,299.84	-5.55	4.23	-3.45	2.00	2.00	0.00
1,400.00	6.00	142.68	1,399.45	-12.48	9.51	-7.75	2.00	2.00	0.00
1,442.26	6.85	142.68	1,441.44	-16.24	12.38	-10.09	2.00	2.00	0.00
1,500.00	6.85	142.68	1,498.77	-21.71	16.55	-13.49	0.00	0.00	0.00
1,600.00	6.85	142.68	1,598.06	-31.19	23.78	-19.38	0.00	0.00	0.00
1,700.00	6.85	142.68	1,697.35	-40.67	31.01	-25.27	0.00	0.00	0.00
1,800.00	6.85	142.68	1,796.64	-50.15	38.23	-31.16	0.00	0.00	0.00
1,900.00	6.85	142.68	1,895.92	-59.63	45.46	-37.05	0.00	0.00	0.00
2,000.00	6.85	142.68	1,995.21	-69.10	52.68	-42.94	0.00	0.00	0.00
2,100.00	6.85	142.68	2,094.50	-78.58	59.91	-48.83	0.00	0.00	0.00
2,200.00	6.85	142.68	2,193.79	-88.06	67.14	-54.72	0.00	0.00	0.00
2,300.00	6.85	142.68	2,293.07	-97.54	74.36	-60.61	0.00	0.00	0.00
2,400.00	6.85	142.68	2,392.36	-107.02	81.59	-66.50	0.00	0.00	0.00
2,500.00	6.85	142.68	2,491.65	-116.49	88.81	-72.39	0.00	0.00	0.00
2,600.00	6.85	142.68	2,590.93	-125.97	96.04	-78.28	0.00	0.00	0.00
2,700.00	6.85	142.68	2,690.22	-135.45	103.27	-84.17	0.00	0.00	0.00
2,800.00	6.85	142.68	2,789.51	-144.93	110.49	-90.05	0.00	0.00	0.00
2,900.00	6.85	142.68	2,888.80	-154.41	117.72	-95.94	0.00	0.00	0.00
3,000.00	6.85	142.68	2,988.08	-163.89	124.94	-101.83	0.00	0.00	0.00
3,100.00	6.85	142.68	3,087.37	-173.36	132.17	-107.72	0.00	0.00	0.00
3,200.00	6.85	142.68	3,186.66	-182.84	139.40	-113.61	0.00	0.00	0.00
3,300.00	6.85	142.68	3,285.94	-192.32	146.62	-119.50	0.00	0.00	0.00
3,400.00	6.85	142.68	3,385.23	-201.80	153.85	-125.39	0.00	0.00	0.00
3,500.00	6.85	142.68	3,484.52	-211.28	161.07	-131.28	0.00	0.00	0.00
3,600.00	6.85	142.68	3,583.81	-220.76	168.30	-137.17	0.00	0.00	0.00
3,700.00	6.85	142.68	3,683.09	-230.23	175.53	-143.06	0.00	0.00	0.00
3,800.00	6.85	142.68	3,782.38	-239.71	182.75	-148.95	0.00	0.00	0.00
3,900.00	6.85	142.68	3,881.67	-249.19	189.98	-154.84	0.00	0.00	0.00
4,000.00	6.85	142.68	3,980.95	-258.67	197.21	-160.73	0.00	0.00	0.00
4,025.23	6.85	142.68	4,006.00	-261.06	199.03	-162.21	0.00	0.00	0.00
PARKMAN									
4,100.00	6.85	142.68	4,080.24	-268.15	204.43	-166.62	0.00	0.00	0.00
4,200.00	6.85	142.68	4,179.53	-277.62	211.66	-172.51	0.00	0.00	0.00
4,300.00	6.85	142.68	4,278.82	-287.10	218.88	-178.40	0.00	0.00	0.00
4,339.47	6.85	142.68	4,318.00	-290.84	221.74	-180.72	0.00	0.00	0.00
SUSSEX									
4,400.00	6.85	142.68	4,378.10	-296.58	226.11	-184.29	0.00	0.00	0.00
4,500.00	6.85	142.68	4,477.39	-306.06	233.34	-190.18	0.00	0.00	0.00
4,600.00	6.85	142.68	4,576.68	-315.54	240.56	-196.07	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4896.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4896.00ft
<b>Site:</b>	WELD_WEICHEL 3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 30N-23HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 30N-23HZ		
<b>Design:</b>	WEICHEL 30N-23HZ (wp01)		

Planned 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)
4,700.00	6.85	142.68	4,675.97	-325.02	247.79	-201.95	0.00	0.00	0.00
4,800.00	6.85	142.68	4,775.25	-334.49	255.01	-207.84	0.00	0.00	0.00
4,900.00	6.85	142.68	4,874.54	-343.97	262.24	-213.73	0.00	0.00	0.00
5,000.00	6.85	142.68	4,973.83	-353.45	269.47	-219.62	0.00	0.00	0.00
5,100.00	6.85	142.68	5,073.11	-362.93	276.69	-225.51	0.00	0.00	0.00
5,200.00	6.85	142.68	5,172.40	-372.41	283.92	-231.40	0.00	0.00	0.00
5,300.00	6.85	142.68	5,271.69	-381.89	291.14	-237.29	0.00	0.00	0.00
5,400.00	6.85	142.68	5,370.98	-391.36	298.37	-243.18	0.00	0.00	0.00
5,500.00	6.85	142.68	5,470.26	-400.84	305.60	-249.07	0.00	0.00	0.00
5,600.00	6.85	142.68	5,569.55	-410.32	312.82	-254.96	0.00	0.00	0.00
5,700.00	6.85	142.68	5,668.84	-419.80	320.05	-260.85	0.00	0.00	0.00
5,800.00	6.85	142.68	5,768.12	-429.28	327.27	-266.74	0.00	0.00	0.00
5,900.00	6.85	142.68	5,867.41	-438.75	334.50	-272.63	0.00	0.00	0.00
6,000.00	6.85	142.68	5,966.70	-448.23	341.73	-278.52	0.00	0.00	0.00
6,100.00	6.85	142.68	6,065.99	-457.71	348.95	-284.41	0.00	0.00	0.00
6,200.00	6.85	142.68	6,165.27	-467.19	356.18	-290.30	0.00	0.00	0.00
6,300.00	6.85	142.68	6,264.56	-476.67	363.41	-296.19	0.00	0.00	0.00
6,333.87	6.85	142.68	6,298.19	-479.88	365.85	-298.18	0.00	0.00	0.00
6,400.00	6.06	204.07	6,363.97	-486.21	366.82	-298.29	10.00	-1.19	92.84
6,500.00	13.68	245.93	6,462.52	-495.87	353.84	-284.13	10.00	7.62	41.86
6,600.00	23.17	256.25	6,557.32	-505.39	323.86	-253.15	10.00	9.49	10.32
6,700.00	32.95	260.72	6,645.46	-514.48	277.80	-206.28	10.00	9.78	4.47
6,800.00	42.83	263.30	6,724.29	-522.86	217.04	-144.95	10.00	9.88	2.58
6,900.00	52.74	265.06	6,791.40	-530.27	143.45	-71.03	10.00	9.91	1.76
6,979.44	60.63	266.16	6,835.00	-535.32	77.31	-4.81	10.00	9.93	1.38
SHARON SPRINGS									
7,000.00	62.68	266.41	6,844.76	-536.49	59.26	13.24	10.00	9.94	1.24
7,027.99	65.46	266.74	6,857.00	-537.99	34.13	38.34	10.00	9.94	1.19
NIOBRARA A									
7,100.00	72.62	267.54	6,882.74	-541.33	-32.98	105.30	10.00	9.95	1.10
7,107.73	73.39	267.62	6,885.00	-541.64	-40.37	112.65	10.00	9.95	1.05
NIOBRARA B									
7,132.08	75.81	267.87	6,891.47	-542.57	-63.83	136.03	10.00	9.95	1.03
WEICHEL 30N-23HZ heel									
7,200.00	82.57	268.55	6,904.19	-544.65	-130.47	202.35	10.00	9.95	1.00
7,269.75	89.52	269.22	6,909.00	-546.00	-200.00	271.43	10.00	9.95	0.97
7"									
7,273.34	89.50	269.25	6,909.03	-546.05	-203.59	274.99	1.00	-0.44	0.90
7,300.00	89.50	269.25	6,909.26	-546.40	-230.24	301.45	0.00	0.00	0.00
7,400.00	89.50	269.25	6,910.14	-547.70	-330.23	400.71	0.00	0.00	0.00
7,500.00	89.50	269.25	6,911.01	-549.01	-430.22	499.97	0.00	0.00	0.00
7,600.00	89.50	269.25	6,911.88	-550.31	-530.21	599.23	0.00	0.00	0.00
7,700.00	89.50	269.25	6,912.75	-551.62	-630.20	698.49	0.00	0.00	0.00
7,800.00	89.50	269.25	6,913.62	-552.92	-730.18	797.75	0.00	0.00	0.00
7,900.00	89.50	269.25	6,914.49	-554.23	-830.17	897.01	0.00	0.00	0.00
8,000.00	89.50	269.25	6,915.37	-555.53	-930.16	996.27	0.00	0.00	0.00
8,100.00	89.50	269.25	6,916.24	-556.84	-1,030.15	1,095.53	0.00	0.00	0.00
8,200.00	89.50	269.25	6,917.11	-558.14	-1,130.13	1,194.79	0.00	0.00	0.00
8,300.00	89.50	269.25	6,917.98	-559.45	-1,230.12	1,294.04	0.00	0.00	0.00
8,400.00	89.50	269.25	6,918.85	-560.75	-1,330.11	1,393.30	0.00	0.00	0.00
8,500.00	89.50	269.25	6,919.73	-562.06	-1,430.10	1,492.56	0.00	0.00	0.00
8,600.00	89.50	269.25	6,920.60	-563.36	-1,530.08	1,591.82	0.00	0.00	0.00
8,700.00	89.50	269.25	6,921.47	-564.67	-1,630.07	1,691.08	0.00	0.00	0.00
8,800.00	89.50	269.25	6,922.34	-565.97	-1,730.06	1,790.34	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 30N-23HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4896.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4896.00ft
<b>Site:</b>	WELD_WEICHEL 3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 30N-23HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 30N-23HZ		
<b>Design:</b>	WEICHEL 30N-23HZ (wp01)		

Planned 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)
8,900.00	89.50	269.25	6,923.21	-567.28	-1,830.05	1,889.60	0.00	0.00	0.00
9,000.00	89.50	269.25	6,924.09	-568.58	-1,930.04	1,988.86	0.00	0.00	0.00
9,100.00	89.50	269.25	6,924.96	-569.89	-2,030.02	2,088.12	0.00	0.00	0.00
9,200.00	89.50	269.25	6,925.83	-571.19	-2,130.01	2,187.38	0.00	0.00	0.00
9,300.00	89.50	269.25	6,926.70	-572.50	-2,230.00	2,286.64	0.00	0.00	0.00
9,400.00	89.50	269.25	6,927.57	-573.80	-2,329.99	2,385.90	0.00	0.00	0.00
9,500.00	89.50	269.25	6,928.45	-575.11	-2,429.97	2,485.16	0.00	0.00	0.00
9,600.00	89.50	269.25	6,929.32	-576.41	-2,529.96	2,584.41	0.00	0.00	0.00
9,700.00	89.50	269.25	6,930.19	-577.72	-2,629.95	2,683.67	0.00	0.00	0.00
9,800.00	89.50	269.25	6,931.06	-579.02	-2,729.94	2,782.93	0.00	0.00	0.00
9,900.00	89.50	269.25	6,931.93	-580.33	-2,829.92	2,882.19	0.00	0.00	0.00
10,000.00	89.50	269.25	6,932.80	-581.63	-2,929.91	2,981.45	0.00	0.00	0.00
10,100.00	89.50	269.25	6,933.68	-582.94	-3,029.90	3,080.71	0.00	0.00	0.00
10,200.00	89.50	269.25	6,934.55	-584.24	-3,129.89	3,179.97	0.00	0.00	0.00
10,300.00	89.50	269.25	6,935.42	-585.55	-3,229.88	3,279.23	0.00	0.00	0.00
10,400.00	89.50	269.25	6,936.29	-586.85	-3,329.86	3,378.49	0.00	0.00	0.00
10,500.00	89.50	269.25	6,937.16	-588.16	-3,429.85	3,477.75	0.00	0.00	0.00
10,600.00	89.50	269.25	6,938.04	-589.46	-3,529.84	3,577.01	0.00	0.00	0.00
10,700.00	89.50	269.25	6,938.91	-590.77	-3,629.83	3,676.27	0.00	0.00	0.00
10,800.00	89.50	269.25	6,939.78	-592.07	-3,729.81	3,775.53	0.00	0.00	0.00
10,900.00	89.50	269.25	6,940.65	-593.38	-3,829.80	3,874.78	0.00	0.00	0.00
11,000.00	89.50	269.25	6,941.52	-594.68	-3,929.79	3,974.04	0.00	0.00	0.00
11,100.00	89.50	269.25	6,942.40	-595.99	-4,029.78	4,073.30	0.00	0.00	0.00
11,200.00	89.50	269.25	6,943.27	-597.29	-4,129.76	4,172.56	0.00	0.00	0.00
11,300.00	89.50	269.25	6,944.14	-598.60	-4,229.75	4,271.82	0.00	0.00	0.00
11,400.00	89.50	269.25	6,945.01	-599.90	-4,329.74	4,371.08	0.00	0.00	0.00
11,500.00	89.50	269.25	6,945.88	-601.21	-4,429.73	4,470.34	0.00	0.00	0.00
11,513.37	89.50	269.25	6,946.00	-601.38	-4,443.10	4,483.62	0.00	0.00	0.00
WEICHEL 30N-23HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WEICHEL 30N-23HZ BHL	0.00	0.00	6,946.00	-601.38	-4,443.10	1,291,723.46	3,240,746.35	40.130966	-104.638996
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
900.00	900.00	9 5/8"	9-5/8	12-1/4	
7,269.75	6,909.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 30N-23HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + RKB @ 4896.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + RKB @ 4896.00ft
<b>Site:</b>	WELD_WEICHEL 3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 30N-23HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 30N-23HZ		
<b>Design:</b>	WEICHEL 30N-23HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,025.23	4,006.00	PARKMAN		0.00		
4,339.47	4,318.00	SUSSEX		0.00		
6,979.44	6,835.00	SHARON SPRINGS		0.00		
7,027.99	6,857.00	NIOBRARA A		0.00		
7,107.73	6,885.00	NIOBRARA B		0.00		