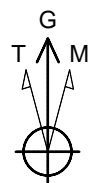
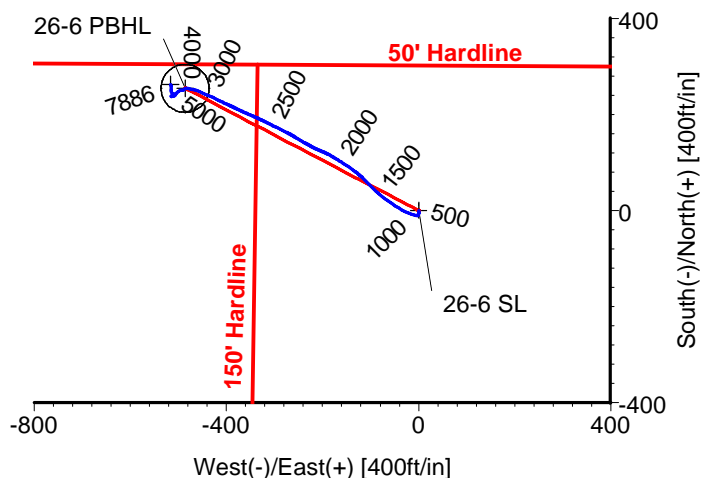
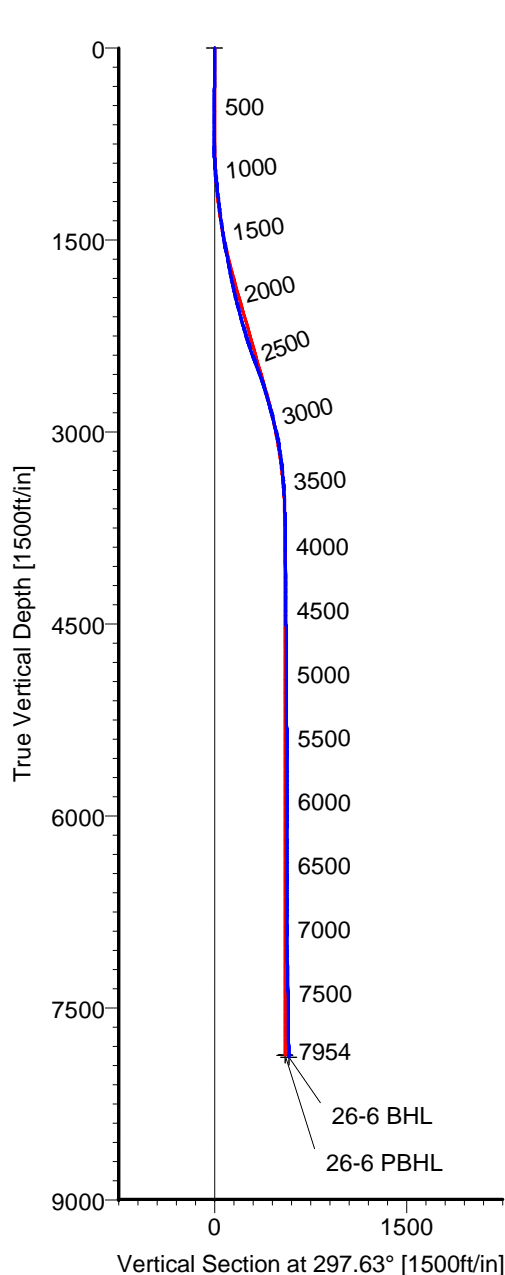


# ANADARKO PETROLEUM

Field: Weld County, CO  
Site: Vogl 4-5 Pad  
Well: 26-6  
Wellpath: Original Hole



Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 8.69°

Magnetic Field  
Strength: 53140nT  
Dip Angle: 66.88°  
Date: 06/17/2010  
Model: IGRF2010

## LEGEND

— 26-6,Original Hole,Plan #1  
— Original Hole

## TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
26-6 SL	0.00	0.00	0.00	40°10'28.092N	104°55'19.632W	Point
26-6 PBHL	7872.00	254.60	-486.38	40°10'30.639N	104°55'25.877W	Circle (Radius: 50)
26-6 BHL	7886.20	262.53	-516.53	40°10'30.720N	104°55'26.264W	Point

Wellpath: (26-6/Original Hole)

Created By: Ivonne Gonzalez

Date: 07/01/2010

ALLIS-CHALMERS DIRECTIONAL DRILLING SERVICES

911 Regional Park Drive Houston, Texas 77060

Phone: 713-934-9600 Fax: 713-934-9067



DIRECTIONAL  
DRILLING SERVICES

# Allis-Chalmers Energy, Inc.

## Survey Report

<b>Company:</b> ANADARKO PETROLEUM		<b>Date:</b> 2010/07/01	<b>Time:</b> 09:43:14	<b>Page:</b> 1
<b>Field:</b> Weld County, CO		<b>Co-ordinate(NE) Reference:</b> Well: 26-6, Grid North		
<b>Site:</b> Vogl 4-5 Pad		<b>Vertical (TVD) Reference:</b> 4830'GL+16'KB 4846.0		
<b>Well:</b> 26-6		<b>Section (VS) Reference:</b> Well (0.00N,0.00E,297.63Azi)		
<b>Wellpath:</b> Original Hole		<b>Survey Calculation Method:</b> Minimum Curvature <b>Db:</b> Adapti		

<b>Field:</b> Weld County, CO	
<b>Map System:</b> US State Plane Coordinate System 1983	<b>Map Zone:</b> Colorado, Northern Zone
<b>Geo Datum:</b> GRS 1980	<b>Coordinate System:</b> Well Centre
<b>Sys Datum:</b> Mean Sea Level	<b>Geomagnetic Model:</b> IGRF2010

<b>Site:</b> Vogl 4-5 Pad	
<b>Site Position:</b>	<b>Northing:</b> 1306931.11 ft
<b>From:</b> Geographic	<b>Easting:</b> 3161486.16 ft
<b>Position Uncertainty:</b> 0.00 ft	<b>Latitude:</b> 40 10 28.092 N
<b>Ground Level:</b> 4830.00 ft	<b>Longitude:</b> 104 55 19.632 W
	<b>North Reference:</b> Grid
	<b>Grid Convergence:</b> 0.37 deg

<b>Well:</b> 26-6	<b>Slot Name:</b> 26-6
<b>Well Position:</b> +N/-S 0.00 ft	<b>Latitude:</b> 40 10 28.092 N
+E/-W 0.00 ft	<b>Longitude:</b> 104 55 19.632 W
<b>Position Uncertainty:</b> 0.00 ft	

<b>Wellpath:</b> Original Hole		<b>Drilled From:</b> Surface
<b>Current Datum:</b> 4830'GL+16'KB	<b>Height:</b> 4846.00 ft	<b>Tie-on Depth:</b> 0.00 ft
<b>Magnetic Data:</b> 2010/06/17		<b>Above System Datum:</b> Mean Sea Level
<b>Field Strength:</b> 53140 nT		<b>Declination:</b> 9.06 deg
<b>Vertical Section: Depth From (TVD)</b>	<b>+N/-S</b>	<b>Mag Dip Angle:</b> 66.88 deg
ft	ft	<b>+E/-W</b>
		ft
		<b>Direction</b>
		deg
0.00	0.00	0.00
		297.63

<b>Survey Program for Definitive Wellpath</b>			<b>Version:</b> 0	
<b>Date:</b> 2010/07/01	<b>Validated:</b> No	<b>Survey</b>	<b>Toolcode</b>	<b>Tool Name</b>
<b>Actual From</b>	<b>To</b>			
ft	ft			
175.00	7909.00	Survey #1 (175.00-7909.00)	MWD	Std MWD
7954.00	7954.00	Survey #2 (7954.00-7954.00)	Project	Projection

Survey										
MD	Incl	Azim	TVD	+N/-S	+E/-W	VS	DLS	Build	Turn	Tool/Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIE LINE
175.00	1.10	168.50	174.99	-1.65	0.33	-1.06	0.63	0.63	0.00	MWD
262.00	1.40	178.90	261.97	-3.53	0.52	-2.10	0.43	0.34	11.95	MWD
349.00	0.50	209.50	348.96	-4.92	0.36	-2.60	1.15	-1.03	35.17	MWD
440.00	0.40	190.50	439.95	-5.58	0.10	-2.68	0.20	-0.11	-20.88	MWD
529.00	0.70	193.30	528.95	-6.41	-0.08	-2.90	0.34	0.34	3.15	MWD
640.00	1.20	211.90	639.93	-8.06	-0.85	-2.98	0.52	0.45	16.76	MWD
760.00	1.10	162.00	759.91	-10.22	-1.16	-3.71	0.81	-0.08	-41.58	MWD
823.00	1.40	273.80	822.90	-10.75	-1.74	-3.44	3.30	0.48	177.46	MWD
887.00	3.00	276.30	886.85	-10.51	-4.18	-1.17	2.50	2.50	3.91	MWD
950.00	4.40	278.40	949.72	-9.98	-8.21	2.65	2.23	2.22	3.33	MWD
1013.00	5.80	288.90	1012.47	-8.59	-13.62	8.08	2.66	2.22	16.67	MWD
1077.00	7.60	294.70	1076.03	-5.78	-20.52	15.50	3.00	2.81	9.06	MWD
1140.00	7.40	296.70	1138.49	-2.21	-27.93	23.72	0.52	-0.32	3.17	MWD
1204.00	6.50	298.10	1202.02	1.35	-34.81	31.46	1.43	-1.41	2.19	MWD
1267.00	7.20	304.70	1264.57	5.27	-41.20	38.95	1.67	1.11	10.48	MWD
1331.00	7.90	301.90	1328.02	9.88	-48.23	47.31	1.24	1.09	-4.37	MWD
1394.00	7.70	301.60	1390.44	14.38	-55.50	55.84	0.32	-0.32	-0.48	MWD
1458.00	8.80	306.10	1453.77	19.51	-63.11	64.96	1.99	1.72	7.03	MWD
1521.00	9.00	308.30	1516.02	25.41	-70.87	74.57	0.63	0.32	3.49	MWD
1585.00	11.20	310.00	1579.02	32.50	-79.56	85.56	3.47	3.44	2.66	MWD
1648.00	11.40	311.10	1640.80	40.53	-88.94	97.59	0.47	0.32	1.75	MWD

# Allis-Chalmers Energy, Inc.

## Survey Report

**Company:** ANADARKO PETROLEUM  
**Field:** Weld County, CO  
**Site:** Vogl 4-5 Pad  
**Well:** 26-6  
**Wellpath:** Original Hole

**Date:** 2010/07/01 **Time:** 09:43:14 **Page:** 2  
**Co-ordinate(NE) Reference:** Well: 26-6, Grid North  
**Vertical (TVD) Reference:** 4830'GL+16'KB 4846.0  
**Section (VS) Reference:** Well (0.00N,0.00E,297.63Azi)  
**Survey Calculation Method:** Minimum Curvature **Db:** Adapti

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
1711.00	11.60	313.90	1702.53	49.01	-98.20	109.73	0.94	0.32	4.44	MWD
1775.00	12.30	317.40	1765.15	58.49	-107.45	122.32	1.57	1.09	5.47	MWD
1838.00	12.10	313.20	1826.73	67.95	-116.80	135.00	1.44	-0.32	-6.67	MWD
1933.00	13.60	308.30	1919.35	81.69	-132.83	155.57	1.95	1.58	-5.16	MWD
1997.00	13.70	303.00	1981.54	90.49	-145.09	170.51	1.96	0.16	-8.28	MWD
2060.00	15.60	303.30	2042.49	99.20	-158.43	186.37	3.02	3.02	0.48	MWD
2123.00	15.30	301.90	2103.21	108.24	-172.56	203.08	0.76	-0.48	-2.22	MWD
2187.00	15.70	297.70	2164.89	116.73	-187.40	220.16	1.86	0.62	-6.56	MWD
2250.00	16.50	291.70	2225.42	124.00	-203.26	237.59	2.93	1.27	-9.52	MWD
2314.00	17.40	297.40	2286.65	131.77	-220.20	256.20	2.95	1.41	8.91	MWD
2377.00	19.50	299.50	2346.40	141.28	-237.72	276.13	3.50	3.33	3.33	MWD
2441.00	19.50	301.90	2406.73	152.19	-256.09	297.46	1.25	0.00	3.75	MWD
2504.00	21.30	296.30	2465.79	162.81	-275.27	319.39	4.21	2.86	-8.89	MWD
2567.00	20.40	296.30	2524.66	172.75	-295.38	341.81	1.43	-1.43	0.00	MWD
2631.00	19.20	297.00	2584.88	182.47	-314.75	363.48	1.91	-1.87	1.09	MWD
2726.00	17.00	293.30	2675.17	195.06	-341.43	392.95	2.61	-2.32	-3.89	MWD
2821.00	15.10	294.20	2766.47	205.62	-365.47	419.16	2.02	-2.00	0.95	MWD
2884.00	16.40	295.60	2827.10	212.83	-380.98	436.24	2.15	2.06	2.22	MWD
2948.00	14.40	294.90	2888.80	220.08	-396.35	453.22	3.14	-3.12	-1.09	MWD
3043.00	13.20	296.00	2981.05	229.81	-416.81	475.86	1.29	-1.26	1.16	MWD
3106.00	11.50	293.80	3042.59	235.50	-429.03	489.32	2.80	-2.70	-3.49	MWD
3170.00	9.70	295.20	3105.50	240.37	-439.74	501.07	2.84	-2.81	2.19	MWD
3233.00	8.50	295.60	3167.71	244.64	-448.74	511.03	1.91	-1.90	0.63	MWD
3297.00	7.40	291.40	3231.09	248.19	-456.85	519.85	1.94	-1.72	-6.56	MWD
3360.00	5.80	288.60	3293.67	250.69	-463.64	527.03	2.59	-2.54	-4.44	MWD
3424.00	5.50	280.10	3357.36	252.26	-469.73	533.15	1.39	-0.47	-13.28	MWD
3519.00	3.30	282.90	3452.08	253.67	-476.87	540.13	2.33	-2.32	2.95	MWD
3614.00	2.10	283.60	3546.97	254.69	-481.23	544.47	1.26	-1.26	0.74	MWD
3709.00	2.60	257.60	3641.89	254.63	-485.03	547.80	1.23	0.53	-27.37	MWD
3804.00	1.20	216.10	3736.84	253.37	-487.72	549.60	1.98	-1.47	-43.68	MWD
3899.00	1.20	223.20	3831.82	251.84	-488.99	550.01	0.16	0.00	7.47	MWD
3994.00	1.10	230.90	3926.80	250.54	-490.37	550.64	0.19	-0.11	8.11	MWD
4089.00	0.70	286.50	4021.79	250.13	-491.64	551.57	0.96	-0.42	58.53	MWD
4184.00	0.70	293.10	4116.78	250.52	-492.73	552.72	0.08	0.00	6.95	MWD
4279.00	1.10	257.60	4211.77	250.55	-494.15	554.00	0.70	0.42	-37.37	MWD
4374.00	0.70	277.30	4306.76	250.43	-495.62	555.24	0.53	-0.42	20.74	MWD
4469.00	0.70	266.10	4401.75	250.46	-496.77	556.28	0.14	0.00	-11.79	MWD
4564.00	1.40	230.20	4496.74	249.68	-498.24	557.22	0.98	0.74	-37.79	MWD
4660.00	1.60	226.70	4592.70	248.01	-500.12	558.10	0.23	0.21	-3.65	MWD
4755.00	0.90	228.10	4687.68	246.60	-501.64	558.80	0.74	-0.74	1.47	MWD
4850.00	1.10	243.20	4782.67	245.69	-503.01	559.59	0.35	0.21	15.89	MWD
4945.00	1.20	228.80	4877.65	244.63	-504.57	560.48	0.32	0.11	-15.16	MWD
5040.00	0.70	217.90	4972.63	243.51	-505.68	560.94	0.56	-0.53	-11.47	MWD
5135.00	1.60	208.10	5067.61	241.89	-506.66	561.06	0.97	0.95	-10.32	MWD
5230.00	1.10	228.40	5162.59	240.11	-507.97	561.39	0.72	-0.53	21.37	MWD
5325.00	0.70	246.00	5257.58	239.27	-509.18	562.08	0.51	-0.42	18.53	MWD
5420.00	0.90	261.80	5352.57	238.93	-510.45	563.04	0.31	0.21	16.63	MWD
5516.00	1.20	237.90	5448.55	238.28	-512.04	564.16	0.55	0.31	-24.90	MWD
5611.00	1.40	246.40	5543.53	237.29	-513.95	565.39	0.29	0.21	8.95	MWD
5706.00	0.70	316.00	5638.51	237.24	-515.42	566.66	1.40	-0.74	73.26	MWD
5864.00	0.30	71.70	5796.51	238.07	-515.69	567.29	0.55	-0.25	73.23	MWD
5959.00	0.90	68.50	5891.50	238.42	-514.76	566.63	0.63	0.63	-3.37	MWD
6054.00	0.30	63.90	5986.50	238.80	-513.85	566.00	0.63	-0.63	-4.84	MWD

# Allis-Chalmers Energy, Inc.

## Survey Report

**Company:** ANADARKO PETROLEUM  
**Field:** Weld County, CO  
**Site:** Vogl 4-5 Pad  
**Well:** 26-6  
**Wellpath:** Original Hole

**Date:** 2010/07/01      **Time:** 09:43:14      **Page:** 3  
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**Vertical (TVD) Reference:** 4830'GL+16'KB 4846.0  
**Section (VS) Reference:** Well (0.00N,0.00E,297.63Azi)  
**Survey Calculation Method:** Minimum Curvature      **Db:** Adapti

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6150.00	0.50	73.10	6082.50	239.04	-513.22	565.55	0.22	0.21	9.58	MWD
6245.00	0.70	165.20	6177.49	238.59	-512.68	564.86	0.92	0.21	96.95	MWD
6340.00	0.00	359.20	6272.49	238.03	-512.53	564.47	0.74	-0.74	0.00	MWD
6435.00	0.50	36.50	6367.49	238.37	-512.28	564.41	0.53	0.53	0.00	MWD
6530.00	0.30	92.70	6462.49	238.69	-511.79	564.12	0.44	-0.21	59.16	MWD
6625.00	0.50	55.50	6557.48	238.91	-511.20	563.70	0.33	0.21	-39.16	MWD
6720.00	0.70	15.10	6652.48	239.71	-510.70	563.63	0.48	0.21	-42.53	MWD
6856.00	0.90	333.90	6788.47	241.47	-510.96	564.67	0.44	0.15	-30.29	MWD
6911.00	0.50	8.00	6843.46	242.09	-511.11	565.10	1.02	-0.73	62.00	MWD
7006.00	0.50	267.80	6938.46	242.49	-511.47	565.60	0.81	0.00	-105.47	MWD
7101.00	0.70	353.30	7033.46	243.05	-511.95	566.29	0.87	0.21	90.00	MWD
7196.00	1.10	324.40	7128.45	244.37	-512.55	567.43	0.62	0.42	-30.42	MWD
7291.00	1.20	317.40	7223.43	245.84	-513.75	569.18	0.18	0.11	-7.37	MWD
7386.00	1.60	329.00	7318.40	247.71	-515.11	571.25	0.51	0.42	12.21	MWD
7482.00	1.60	10.50	7414.36	250.18	-515.56	572.78	1.18	0.00	43.23	MWD
7576.00	1.40	348.00	7508.33	252.59	-515.56	573.90	0.66	-0.21	-23.94	MWD
7672.00	1.40	14.30	7604.30	254.87	-515.51	574.92	0.66	0.00	27.40	MWD
7766.00	1.60	352.20	7698.27	257.29	-515.41	575.95	0.65	0.21	-23.51	MWD
7862.00	1.90	350.10	7794.23	260.18	-515.86	577.69	0.32	0.31	-2.19	MWD
7909.00	1.40	341.30	7841.21	261.49	-516.18	578.58	1.19	-1.06	-18.72	MWD
7939.80	1.40	341.30	7872.00	262.21	-516.42	579.13	0.00	0.00	0.00	26-6 PBHL
7954.00	1.40	341.30	7886.20	262.53	-516.53	579.38	0.00	0.00	0.00	26-6 BHL

### Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---><--- Longitude --->		
26-6 SL			0.00	0.00	0.00	1306931.11	13161486.16	40	10	28.092 N
26-6 PBHL			7872.00	254.60	-486.38	1307185.71	13160999.77	40	10	30.639 N
-Circle (Radius: 50)										
26-6 BHL			7886.20	262.53	-516.53	1307193.64	13160969.63	40	10	30.720 N