

Anadarko Petroleum Corp.

Weld County, CO (NAD 83)

Sec. 25-T3N-R66W

Camp 29N-25HZ ReLoc

Plan B Rev 5

Design: Actual Field Surveys

Survey Report - Geographic

23 February, 2012

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Project	Weld County, CO (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Sec. 25-T3N-R66W			
Site Position:		Northing:	1,313,128.73ft	Latitude:	40° 11' 25.410 N
From:	Lat/Long	Easting:	3,214,243.39ft	Longitude:	104° 43' 59.210 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.50 °

Well	Camp 29N-25HZ ReLoc					
Well Position	+N/-S	0.00 ft	Northing:	1,313,126.27 ft	Latitude:	40° 11' 25.386 N
	+E/-W	0.00 ft	Easting:	3,214,242.57 ft	Longitude:	104° 43' 59.221 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	5,043.00 ft	Ground Level:	5,043.00 ft

Wellbore	Plan B Rev 5				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2011	2011-11-11	8.76	66.86	52,940

Design	Actual Field Surveys				
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	9.51	

Survey Program	Date	2012-02-23			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
125.00	11,748.00	Final Field Surveys (Plan B Rev 5)	MWD	MWD - Standard	

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Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,313,126.27	3,214,242.57	40° 11' 25.386 N	104° 43' 59.221 W
125.00	1.85	306.47	124.98	1.20	-1.62	1,313,127.46	3,214,240.94	40° 11' 25.398 N	104° 43' 59.242 W
First Gyro Survey @ 125.00ft									
225.00	0.27	130.88	224.96	2.00	-2.74	1,313,128.26	3,214,239.81	40° 11' 25.406 N	104° 43' 59.257 W
325.00	0.44	207.14	324.96	1.51	-2.74	1,313,127.76	3,214,239.82	40° 11' 25.401 N	104° 43' 59.257 W
425.00	0.36	228.67	424.96	0.96	-3.15	1,313,127.21	3,214,239.41	40° 11' 25.395 N	104° 43' 59.262 W
525.00	0.24	89.70	524.96	0.75	-3.18	1,313,127.00	3,214,239.39	40° 11' 25.393 N	104° 43' 59.262 W
625.00	0.42	189.72	624.96	0.39	-3.03	1,313,126.64	3,214,239.54	40° 11' 25.390 N	104° 43' 59.260 W
725.00	0.19	37.82	724.96	0.16	-2.99	1,313,126.41	3,214,239.58	40° 11' 25.387 N	104° 43' 59.260 W
825.00	0.39	170.30	824.96	-0.04	-2.83	1,313,126.21	3,214,239.74	40° 11' 25.385 N	104° 43' 59.258 W
855.00	0.27	168.60	854.96	-0.21	-2.80	1,313,126.04	3,214,239.78	40° 11' 25.384 N	104° 43' 59.257 W
Final Gyro Survey @ 855.00ft - Tie-on to Gyro Surveys @ 855.00ft									
982.00	0.28	259.58	981.95	-0.56	-3.05	1,313,125.69	3,214,239.53	40° 11' 25.380 N	104° 43' 59.260 W
First Sperry MWD Survey @ 982.00ft									
1,043.00	0.37	162.56	1,042.95	-0.78	-3.13	1,313,125.47	3,214,239.45	40° 11' 25.378 N	104° 43' 59.262 W
1,134.00	2.68	123.88	1,133.92	-2.24	-1.28	1,313,124.02	3,214,241.31	40° 11' 25.364 N	104° 43' 59.238 W
1,226.00	3.94	120.36	1,225.76	-5.04	3.23	1,313,121.26	3,214,245.85	40° 11' 25.336 N	104° 43' 59.180 W
1,318.00	5.21	118.52	1,317.47	-8.63	9.63	1,313,117.73	3,214,252.28	40° 11' 25.300 N	104° 43' 59.097 W
1,409.00	5.21	115.89	1,408.09	-12.41	16.98	1,313,114.01	3,214,259.66	40° 11' 25.263 N	104° 43' 59.002 W
1,501.00	5.31	116.80	1,499.70	-16.15	24.54	1,313,110.34	3,214,267.25	40° 11' 25.226 N	104° 43' 58.905 W
1,593.00	4.97	117.97	1,591.33	-19.94	31.86	1,313,106.61	3,214,274.60	40° 11' 25.189 N	104° 43' 58.811 W
1,684.00	5.08	116.50	1,681.98	-23.59	38.94	1,313,103.03	3,214,281.72	40° 11' 25.153 N	104° 43' 58.719 W
1,776.00	4.97	117.14	1,773.63	-27.22	46.14	1,313,099.45	3,214,288.94	40° 11' 25.117 N	104° 43' 58.627 W
1,871.00	4.59	120.04	1,868.30	-31.00	53.09	1,313,095.73	3,214,295.92	40° 11' 25.079 N	104° 43' 58.537 W
1,966.00	4.08	121.73	1,963.03	-34.68	59.25	1,313,092.11	3,214,302.12	40° 11' 25.043 N	104° 43' 58.458 W
2,061.00	4.72	119.43	2,057.75	-38.38	65.53	1,313,088.46	3,214,308.43	40° 11' 25.006 N	104° 43' 58.377 W
2,156.00	4.31	121.37	2,152.45	-42.16	71.98	1,313,084.74	3,214,314.92	40° 11' 24.969 N	104° 43' 58.294 W
2,251.00	5.45	115.63	2,247.11	-45.97	79.10	1,313,080.99	3,214,322.06	40° 11' 24.931 N	104° 43' 58.202 W
2,347.00	5.10	105.84	2,342.70	-49.11	87.32	1,313,077.93	3,214,330.31	40° 11' 24.900 N	104° 43' 58.096 W
2,442.00	4.59	101.69	2,437.36	-51.03	95.10	1,313,076.07	3,214,338.11	40° 11' 24.881 N	104° 43' 57.996 W
2,537.00	5.02	105.27	2,532.03	-52.89	102.83	1,313,074.27	3,214,345.85	40° 11' 24.863 N	104° 43' 57.896 W
2,632.00	5.64	114.10	2,626.62	-55.89	111.10	1,313,071.35	3,214,354.15	40° 11' 24.833 N	104° 43' 57.790 W
2,727.00	4.82	114.18	2,721.22	-59.43	119.01	1,313,067.87	3,214,362.08	40° 11' 24.798 N	104° 43' 57.688 W
2,822.00	5.78	121.99	2,815.82	-63.60	126.70	1,313,063.77	3,214,369.82	40° 11' 24.757 N	104° 43' 57.589 W
2,917.00	4.94	131.01	2,910.40	-68.82	133.85	1,313,058.61	3,214,377.01	40° 11' 24.706 N	104° 43' 57.497 W
3,012.00	6.46	128.31	3,004.93	-74.82	141.13	1,313,052.68	3,214,384.34	40° 11' 24.646 N	104° 43' 57.403 W
3,108.00	6.12	130.77	3,100.35	-81.51	149.24	1,313,046.06	3,214,392.51	40° 11' 24.580 N	104° 43' 57.298 W
3,203.00	5.95	133.80	3,194.83	-88.22	156.63	1,313,039.41	3,214,399.95	40° 11' 24.514 N	104° 43' 57.203 W
3,298.00	4.77	134.77	3,289.41	-94.41	162.99	1,313,033.28	3,214,406.37	40° 11' 24.453 N	104° 43' 57.121 W
3,393.00	3.44	135.17	3,384.16	-99.22	167.80	1,313,028.52	3,214,411.22	40° 11' 24.405 N	104° 43' 57.059 W
3,488.00	4.06	118.83	3,478.96	-102.86	172.76	1,313,024.92	3,214,416.21	40° 11' 24.369 N	104° 43' 56.995 W
3,583.00	4.53	113.87	3,573.69	-106.00	179.14	1,313,021.83	3,214,422.61	40° 11' 24.338 N	104° 43' 56.913 W
3,678.00	4.79	120.44	3,668.38	-109.53	185.99	1,313,018.36	3,214,429.49	40° 11' 24.303 N	104° 43' 56.825 W
3,773.00	5.13	120.63	3,763.03	-113.70	193.06	1,313,014.25	3,214,436.60	40° 11' 24.262 N	104° 43' 56.734 W
3,868.00	5.62	120.03	3,857.61	-118.19	200.74	1,313,009.83	3,214,444.32	40° 11' 24.218 N	104° 43' 56.635 W
3,963.00	5.37	121.96	3,952.17	-122.88	208.54	1,313,005.21	3,214,452.16	40° 11' 24.171 N	104° 43' 56.534 W
4,058.00	5.40	122.83	4,046.75	-127.65	216.07	1,313,000.50	3,214,459.73	40° 11' 24.124 N	104° 43' 56.437 W
4,153.00	6.90	118.67	4,141.20	-132.81	224.83	1,312,995.42	3,214,468.54	40° 11' 24.073 N	104° 43' 56.324 W
4,248.00	6.97	118.10	4,235.51	-138.27	234.92	1,312,990.05	3,214,478.67	40° 11' 24.019 N	104° 43' 56.194 W
4,343.00	6.08	125.14	4,329.89	-143.88	244.12	1,312,984.52	3,214,487.92	40° 11' 23.964 N	104° 43' 56.076 W
4,438.00	5.94	124.36	4,424.37	-149.55	252.30	1,312,978.92	3,214,496.14	40° 11' 23.908 N	104° 43' 55.970 W
4,533.00	6.24	127.43	4,518.83	-155.46	260.45	1,312,973.08	3,214,504.35	40° 11' 23.849 N	104° 43' 55.865 W
4,629.00	5.44	133.70	4,614.34	-161.77	267.89	1,312,966.83	3,214,511.84	40° 11' 23.787 N	104° 43' 55.769 W
4,724.00	6.07	125.25	4,708.86	-167.78	275.24	1,312,960.88	3,214,519.25	40° 11' 23.728 N	104° 43' 55.675 W
4,819.00	5.28	132.00	4,803.39	-173.61	282.59	1,312,955.12	3,214,526.65	40° 11' 23.670 N	104° 43' 55.580 W

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Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
4,914.00	6.08	117.70	4,897.93	-178.87	290.30	1,312,949.93	3,214,534.39	40° 11' 23.618 N	104° 43' 55.481 W
5,009.00	5.82	119.58	4,992.42	-183.59	298.94	1,312,945.29	3,214,543.08	40° 11' 23.571 N	104° 43' 55.369 W
5,104.00	5.47	128.54	5,086.96	-188.79	306.67	1,312,940.15	3,214,550.85	40° 11' 23.520 N	104° 43' 55.270 W
5,199.00	4.93	136.21	5,181.57	-194.56	313.04	1,312,934.44	3,214,557.27	40° 11' 23.463 N	104° 43' 55.188 W
5,294.00	5.60	123.35	5,276.17	-200.05	319.74	1,312,929.00	3,214,564.01	40° 11' 23.409 N	104° 43' 55.101 W
5,390.00	5.33	107.50	5,371.74	-203.97	327.90	1,312,925.16	3,214,572.21	40° 11' 23.370 N	104° 43' 54.996 W
5,485.00	4.01	108.00	5,466.42	-206.32	335.27	1,312,922.87	3,214,579.60	40° 11' 23.347 N	104° 43' 54.901 W
5,580.00	3.42	123.21	5,561.23	-208.90	340.80	1,312,920.34	3,214,585.15	40° 11' 23.321 N	104° 43' 54.830 W
5,675.00	2.90	99.93	5,656.09	-210.87	345.54	1,312,918.41	3,214,589.91	40° 11' 23.302 N	104° 43' 54.769 W
5,770.00	2.92	84.26	5,750.96	-211.04	350.31	1,312,918.28	3,214,594.68	40° 11' 23.300 N	104° 43' 54.707 W
5,865.00	2.44	55.15	5,845.86	-209.64	354.38	1,312,919.72	3,214,598.74	40° 11' 23.314 N	104° 43' 54.655 W
5,961.00	1.90	28.78	5,941.80	-207.08	356.82	1,312,922.30	3,214,601.16	40° 11' 23.339 N	104° 43' 54.623 W
6,056.00	0.18	0.16	6,036.78	-205.55	357.58	1,312,923.84	3,214,601.90	40° 11' 23.354 N	104° 43' 54.614 W
6,151.00	1.16	307.42	6,131.77	-204.81	356.82	1,312,924.56	3,214,601.13	40° 11' 23.362 N	104° 43' 54.623 W
6,246.00	1.22	307.12	6,226.75	-203.62	355.25	1,312,925.74	3,214,599.55	40° 11' 23.374 N	104° 43' 54.644 W
6,341.00	1.32	307.42	6,321.73	-202.34	353.57	1,312,927.00	3,214,597.87	40° 11' 23.386 N	104° 43' 54.665 W
6,436.00	1.32	319.18	6,416.70	-200.85	351.99	1,312,928.48	3,214,596.27	40° 11' 23.401 N	104° 43' 54.686 W
6,497.00	1.86	63.72	6,477.69	-199.88	352.42	1,312,929.46	3,214,596.69	40° 11' 23.410 N	104° 43' 54.680 W
6,528.00	6.19	83.12	6,508.61	-199.46	354.53	1,312,929.90	3,214,598.80	40° 11' 23.415 N	104° 43' 54.653 W
6,560.00	10.77	88.08	6,540.25	-199.15	359.23	1,312,930.25	3,214,603.50	40° 11' 23.418 N	104° 43' 54.592 W
6,592.00	14.32	90.98	6,571.48	-199.12	366.18	1,312,930.34	3,214,610.44	40° 11' 23.418 N	104° 43' 54.503 W
6,624.00	17.16	90.64	6,602.28	-199.24	374.86	1,312,930.29	3,214,619.12	40° 11' 23.417 N	104° 43' 54.391 W
6,655.00	20.01	93.07	6,631.66	-199.57	384.73	1,312,930.04	3,214,629.00	40° 11' 23.413 N	104° 43' 54.264 W
6,687.00	22.03	94.33	6,661.53	-200.32	396.18	1,312,929.40	3,214,640.45	40° 11' 23.406 N	104° 43' 54.116 W
6,719.00	22.73	92.14	6,691.12	-201.00	408.34	1,312,928.82	3,214,652.62	40° 11' 23.399 N	104° 43' 53.960 W
6,751.00	22.51	91.09	6,720.65	-201.35	420.65	1,312,928.58	3,214,664.93	40° 11' 23.396 N	104° 43' 53.801 W
6,782.00	21.52	89.26	6,749.39	-201.39	432.26	1,312,928.64	3,214,676.54	40° 11' 23.396 N	104° 43' 53.651 W
6,814.00	22.52	88.62	6,779.06	-201.17	444.26	1,312,928.96	3,214,688.54	40° 11' 23.398 N	104° 43' 53.497 W
6,846.00	24.18	90.55	6,808.44	-201.08	456.94	1,312,929.16	3,214,701.22	40° 11' 23.399 N	104° 43' 53.333 W
6,878.00	26.14	88.57	6,837.40	-200.97	470.54	1,312,929.39	3,214,714.82	40° 11' 23.400 N	104° 43' 53.158 W
6,909.00	28.57	87.76	6,864.93	-200.51	484.78	1,312,929.97	3,214,729.05	40° 11' 23.404 N	104° 43' 52.975 W
6,941.00	30.84	82.77	6,892.73	-199.18	500.57	1,312,931.44	3,214,744.82	40° 11' 23.417 N	104° 43' 52.771 W
6,973.00	33.96	79.05	6,919.75	-196.45	517.48	1,312,934.32	3,214,761.71	40° 11' 23.444 N	104° 43' 52.553 W
7,005.00	37.90	76.97	6,945.66	-192.53	535.84	1,312,938.39	3,214,780.04	40° 11' 23.483 N	104° 43' 52.317 W
7,036.00	41.79	74.73	6,969.45	-187.66	555.09	1,312,943.43	3,214,799.24	40° 11' 23.531 N	104° 43' 52.069 W
7,068.00	46.17	73.54	6,992.47	-181.58	576.46	1,312,949.69	3,214,820.56	40° 11' 23.591 N	104° 43' 51.793 W
7,100.00	49.42	70.35	7,013.97	-174.22	598.98	1,312,957.25	3,214,843.01	40° 11' 23.664 N	104° 43' 51.503 W
7,131.00	51.82	65.06	7,033.65	-165.12	621.13	1,312,966.54	3,214,865.08	40° 11' 23.754 N	104° 43' 51.218 W
7,163.00	55.44	61.09	7,052.62	-153.44	644.08	1,312,978.42	3,214,887.93	40° 11' 23.869 N	104° 43' 50.922 W
7,195.00	58.55	58.13	7,070.06	-139.86	667.22	1,312,992.20	3,214,910.95	40° 11' 24.004 N	104° 43' 50.624 W
7,226.00	60.48	53.93	7,085.79	-124.93	689.36	1,313,007.32	3,214,932.96	40° 11' 24.151 N	104° 43' 50.339 W
7,258.00	61.31	50.70	7,101.36	-107.84	711.48	1,313,024.60	3,214,954.93	40° 11' 24.320 N	104° 43' 50.053 W
7,290.00	61.79	46.44	7,116.61	-89.22	732.56	1,313,043.39	3,214,975.85	40° 11' 24.504 N	104° 43' 49.782 W
7,321.00	61.85	41.86	7,131.25	-69.62	751.59	1,313,063.15	3,214,994.70	40° 11' 24.698 N	104° 43' 49.537 W
7,353.00	61.19	37.42	7,146.52	-47.97	769.53	1,313,084.96	3,215,012.46	40° 11' 24.912 N	104° 43' 49.305 W
7,385.00	61.53	33.14	7,161.86	-25.05	785.74	1,313,108.02	3,215,028.47	40° 11' 25.138 N	104° 43' 49.096 W
7,417.00	61.55	28.83	7,177.11	-0.94	800.22	1,313,132.25	3,215,042.74	40° 11' 25.376 N	104° 43' 48.910 W
7,448.00	63.44	24.92	7,191.43	23.58	812.64	1,313,156.88	3,215,054.94	40° 11' 25.619 N	104° 43' 48.750 W
7,480.00	66.65	20.92	7,204.94	50.29	823.92	1,313,183.69	3,215,065.99	40° 11' 25.883 N	104° 43' 48.605 W
7,512.00	70.33	18.86	7,216.67	78.28	834.04	1,313,211.77	3,215,075.87	40° 11' 26.159 N	104° 43' 48.474 W
7,544.00	73.39	17.19	7,226.63	107.20	843.45	1,313,240.76	3,215,085.03	40° 11' 26.445 N	104° 43' 48.353 W
7,575.00	77.22	12.82	7,234.50	136.15	851.20	1,313,269.78	3,215,092.52	40° 11' 26.731 N	104° 43' 48.253 W
7,607.00	81.18	9.51	7,240.50	166.98	857.28	1,313,300.65	3,215,098.34	40° 11' 27.036 N	104° 43' 48.175 W
7,639.00	84.60	6.35	7,244.46	198.42	861.65	1,313,332.13	3,215,102.44	40° 11' 27.346 N	104° 43' 48.118 W
7,670.00	88.89	4.02	7,246.22	229.24	864.45	1,313,362.97	3,215,104.97	40° 11' 27.651 N	104° 43' 48.082 W

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
7,690.00	90.49	2.62	7,246.32	249.20	865.60	1,313,382.94	3,215,105.95	40° 11' 27.848 N	104° 43' 48.067 W
7,716.00	91.09	1.95	7,245.97	275.18	866.64	1,313,408.92	3,215,106.76	40° 11' 28.105 N	104° 43' 48.054 W
7" Casing Point @ 7716.00ft - 7" Intermediate Casing									
7,768.00	92.28	0.60	7,244.44	327.14	867.80	1,313,460.89	3,215,107.47	40° 11' 28.618 N	104° 43' 48.039 W
7,863.00	91.76	0.73	7,241.09	422.07	868.90	1,313,555.83	3,215,107.75	40° 11' 29.557 N	104° 43' 48.025 W
7,958.00	90.55	0.14	7,239.18	517.05	869.62	1,313,650.80	3,215,107.65	40° 11' 30.495 N	104° 43' 48.015 W
8,054.00	91.14	0.39	7,237.76	613.04	870.06	1,313,746.79	3,215,107.26	40° 11' 31.444 N	104° 43' 48.010 W
8,149.00	89.32	358.81	7,237.38	708.03	869.40	1,313,841.76	3,215,105.78	40° 11' 32.382 N	104° 43' 48.018 W
8,244.00	89.94	356.91	7,237.99	802.95	865.85	1,313,936.65	3,215,101.41	40° 11' 33.320 N	104° 43' 48.064 W
8,340.00	89.85	356.45	7,238.17	898.79	860.29	1,314,032.44	3,215,095.02	40° 11' 34.267 N	104° 43' 48.135 W
8,435.00	89.63	355.75	7,238.60	993.57	853.83	1,314,127.15	3,215,087.74	40° 11' 35.204 N	104° 43' 48.219 W
8,530.00	91.94	354.86	7,237.30	1,088.24	846.06	1,314,221.74	3,215,079.15	40° 11' 36.140 N	104° 43' 48.319 W
8,626.00	93.39	354.72	7,232.83	1,183.73	837.35	1,314,317.15	3,215,069.62	40° 11' 37.083 N	104° 43' 48.431 W
8,721.00	93.36	355.46	7,227.24	1,278.22	829.23	1,314,411.56	3,215,060.69	40° 11' 38.017 N	104° 43' 48.536 W
8,816.00	92.99	356.22	7,221.98	1,372.82	822.35	1,314,506.10	3,215,052.99	40° 11' 38.952 N	104° 43' 48.624 W
8,911.00	91.88	356.60	7,217.94	1,467.55	816.41	1,314,600.77	3,215,046.23	40° 11' 39.888 N	104° 43' 48.701 W
9,007.00	90.62	357.47	7,215.85	1,563.40	811.44	1,314,696.56	3,215,040.43	40° 11' 40.835 N	104° 43' 48.765 W
9,102.00	90.89	357.91	7,214.60	1,658.31	807.62	1,314,791.44	3,215,035.78	40° 11' 41.773 N	104° 43' 48.814 W
9,197.00	89.66	358.28	7,214.14	1,753.26	804.46	1,314,886.35	3,215,031.80	40° 11' 42.711 N	104° 43' 48.855 W
9,292.00	89.78	358.21	7,214.61	1,848.21	801.55	1,314,981.27	3,215,028.07	40° 11' 43.650 N	104° 43' 48.892 W
9,388.00	90.00	358.66	7,214.79	1,944.17	798.93	1,315,077.20	3,215,024.62	40° 11' 44.598 N	104° 43' 48.926 W
9,483.00	88.80	359.08	7,215.79	2,039.15	797.05	1,315,172.15	3,215,021.93	40° 11' 45.536 N	104° 43' 48.950 W
9,578.00	88.61	359.30	7,217.93	2,134.11	795.71	1,315,267.10	3,215,019.76	40° 11' 46.475 N	104° 43' 48.967 W
9,673.00	88.67	359.45	7,220.19	2,229.08	794.67	1,315,362.05	3,215,017.91	40° 11' 47.413 N	104° 43' 48.980 W
9,768.00	88.64	359.47	7,222.42	2,324.05	793.78	1,315,457.00	3,215,016.19	40° 11' 48.352 N	104° 43' 48.992 W
9,864.00	89.11	358.82	7,224.30	2,420.02	792.35	1,315,552.95	3,215,013.93	40° 11' 49.300 N	104° 43' 49.010 W
9,959.00	89.91	358.64	7,225.11	2,514.99	790.24	1,315,647.90	3,215,011.00	40° 11' 50.239 N	104° 43' 49.037 W
10,054.00	90.00	358.73	7,225.19	2,609.97	788.06	1,315,742.85	3,215,008.00	40° 11' 51.177 N	104° 43' 49.066 W
10,149.00	90.86	358.97	7,224.48	2,704.95	786.16	1,315,837.80	3,215,005.27	40° 11' 52.116 N	104° 43' 49.090 W
10,245.00	91.45	359.06	7,222.54	2,800.91	784.51	1,315,933.75	3,215,002.79	40° 11' 53.064 N	104° 43' 49.111 W
10,340.00	91.97	358.82	7,219.71	2,895.85	782.75	1,316,028.66	3,215,000.22	40° 11' 54.002 N	104° 43' 49.134 W
10,435.00	92.37	358.97	7,216.11	2,990.77	780.92	1,316,123.55	3,214,997.56	40° 11' 54.940 N	104° 43' 49.157 W
10,530.00	91.88	358.31	7,212.59	3,085.67	778.66	1,316,218.43	3,214,994.49	40° 11' 55.878 N	104° 43' 49.186 W
10,625.00	89.97	357.61	7,211.05	3,180.60	775.28	1,316,313.32	3,214,990.29	40° 11' 56.816 N	104° 43' 49.230 W
10,720.00	89.01	357.15	7,211.90	3,275.49	770.94	1,316,408.17	3,214,985.13	40° 11' 57.754 N	104° 43' 49.286 W
10,815.00	89.38	357.39	7,213.23	3,370.37	766.42	1,316,503.01	3,214,979.78	40° 11' 58.692 N	104° 43' 49.344 W
10,910.00	88.86	356.93	7,214.69	3,465.25	761.71	1,316,597.83	3,214,974.26	40° 11' 59.629 N	104° 43' 49.405 W
11,006.00	87.29	357.70	7,217.92	3,561.08	757.22	1,316,693.62	3,214,968.93	40° 12' 0.576 N	104° 43' 49.463 W
11,101.00	87.10	357.84	7,222.57	3,655.90	753.52	1,316,788.39	3,214,964.42	40° 12' 1.513 N	104° 43' 49.510 W
11,196.00	87.04	358.18	7,227.42	3,750.71	750.23	1,316,883.18	3,214,960.31	40° 12' 2.450 N	104° 43' 49.553 W
11,291.00	87.10	358.02	7,232.28	3,845.54	747.08	1,316,977.97	3,214,956.34	40° 12' 3.387 N	104° 43' 49.593 W
11,386.00	87.38	358.25	7,236.85	3,940.38	743.99	1,317,072.77	3,214,952.43	40° 12' 4.324 N	104° 43' 49.633 W
11,481.00	87.53	358.42	7,241.07	4,035.24	741.24	1,317,167.61	3,214,948.86	40° 12' 5.262 N	104° 43' 49.668 W
11,577.00	87.50	358.24	7,245.23	4,131.11	738.44	1,317,263.44	3,214,945.23	40° 12' 6.209 N	104° 43' 49.704 W
11,672.00	87.25	358.13	7,249.58	4,225.97	735.44	1,317,358.26	3,214,941.41	40° 12' 7.147 N	104° 43' 49.743 W
11,706.00	87.13	358.41	7,251.25	4,259.91	734.41	1,317,392.19	3,214,940.09	40° 12' 7.482 N	104° 43' 49.756 W
Final Sperry Survey @ 11706.00ft									
11,748.00	87.13	358.41	7,253.35	4,301.84	733.25	1,317,434.11	3,214,938.56	40° 12' 7.896 N	104° 43' 49.771 W
Straight Line Projection to TD @ 11748.00ft									

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Camp 2 Pad_Section		0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)										
- Polygon										
Point 1				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Point 2				0.00	4,781.68	2,204.44	1,317,926.64	3,216,405.48		
Point 3				0.00	4,838.96	4,849.36	1,318,006.79	3,219,049.70		
Point 4				0.00	2,204.58	4,852.60	1,315,372.65	3,219,075.72		
Point 5				0.00	-434.80	4,856.09	1,312,733.51	3,219,102.03		
Point 6				0.00	-467.02	2,175.46	1,312,678.11	3,216,421.90		
Point 7				0.00	-499.22	-505.15	1,312,622.73	3,213,741.78		
Point 8				0.00	2,132.17	-505.79	1,315,253.90	3,213,718.38		
Point 9				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Camp 2 Pad_Setback		0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)										
- Polygon										
Point 1				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Point 2				0.00	4,321.68	2,200.46	1,317,466.64	3,216,405.48		
Point 3				0.00	4,382.94	4,385.38	1,317,546.79	3,218,589.70		
Point 4				0.00	2,208.56	4,392.60	1,315,372.65	3,218,615.72		
Point 5				0.00	29.18	4,400.06	1,313,193.51	3,218,642.03		
Point 6				0.00	-7.02	2,179.44	1,313,138.11	3,216,421.90		
Point 7				0.00	-43.20	-41.17	1,313,082.73	3,214,201.78		
Point 8				0.00	2,128.19	-45.79	1,315,253.90	3,214,178.38		
Point 9				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Camp 29N -25HZ_Pla		0.00	0.00	7,290.40	2,229.56	797.92	1,315,362.56	3,215,021.15	40° 11' 47.418 N	104° 43' 48.939 W
- actual wellpath misses target center by 70.26ft at 9675.10ft MD (7220.24 TVD, 2231.18 N, 794.65 E)										
- Point										
Camp 29N -25HZ_Pla		0.00	0.00	7,280.00	4,310.00	722.00	1,317,442.17	3,214,927.24	40° 12' 7.977 N	104° 43' 49.916 W
- actual wellpath misses target center by 30.05ft at 11748.00ft MD (7253.35 TVD, 4301.84 N, 733.25 E)										
- Point										
Camp 29N -25HZ_Pla		0.00	0.00	0.00	0.02	0.00	1,313,126.30	3,214,242.57	40° 11' 25.386 N	104° 43' 59.221 W
- actual wellpath hits target center										
- Point										

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,716.00	7,245.97	7" Intermediate Casing	7	8-3/4

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
125.00	124.98	1.20	-1.62	First Gyro Survey @ 125.00ft
855.00	854.96	-0.21	-2.80	Final Gyro Survey @ 855.00ft
855.00	854.96	-0.21	-2.80	Tie-on to Gyro Surveys @ 855.00ft
982.00	981.95	-0.56	-3.05	First Sperry MWD Survey @ 982.00ft
7,716.00	7,245.97	275.18	866.64	7" Casing Point @ 7716.00ft
11,706.00	7,251.25	4,259.91	734.41	Final Sperry Survey @ 11706.00ft
11,748.00	7,253.35	4,301.84	733.25	Straight Line Projection to TD @ 11748.00ft

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Camp 2 Pad_Section		0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)										
- Polygon										
Point 1				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Point 2				0.00	4,781.68	2,204.44	1,317,926.64	3,216,405.48		
Point 3				0.00	4,838.96	4,849.36	1,318,006.79	3,219,049.70		
Point 4				0.00	2,204.58	4,852.60	1,315,372.65	3,219,075.72		
Point 5				0.00	-434.80	4,856.09	1,312,733.51	3,219,102.03		
Point 6				0.00	-467.02	2,175.46	1,312,678.11	3,216,421.90		
Point 7				0.00	-499.22	-505.15	1,312,622.73	3,213,741.78		
Point 8				0.00	2,132.17	-505.79	1,315,253.90	3,213,718.38		
Point 9				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Camp 2 Pad_Setback		0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)										
- Polygon										
Point 1				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Point 2				0.00	4,321.68	2,200.46	1,317,466.64	3,216,405.48		
Point 3				0.00	4,382.94	4,385.38	1,317,546.79	3,218,589.70		
Point 4				0.00	2,208.56	4,392.60	1,315,372.65	3,218,615.72		
Point 5				0.00	29.18	4,400.06	1,313,193.51	3,218,642.03		
Point 6				0.00	-7.02	2,179.44	1,313,138.11	3,216,421.90		
Point 7				0.00	-43.20	-41.17	1,313,082.73	3,214,201.78		
Point 8				0.00	2,128.19	-45.79	1,315,253.90	3,214,178.38		
Point 9				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Camp 29N -25HZ_Pla		0.00	0.00	7,290.40	2,229.56	797.92	1,315,362.56	3,215,021.15	40° 11' 47.418 N	104° 43' 48.939 W
- actual wellpath misses target center by 70.26ft at 9675.10ft MD (7220.24 TVD, 2231.18 N, 794.65 E)										
- Point										
Camp 29N -25HZ_Pla		0.00	0.00	7,280.00	4,310.00	722.00	1,317,442.17	3,214,927.24	40° 12' 7.977 N	104° 43' 49.916 W
- actual wellpath misses target center by 30.05ft at 11748.00ft MD (7253.35 TVD, 4301.84 N, 733.25 E)										
- Point										
Camp 29N -25HZ_Pla		0.00	0.00	0.00	0.02	0.00	1,313,126.30	3,214,242.57	40° 11' 25.386 N	104° 43' 59.221 W
- actual wellpath hits target center										
- Point										

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,716.00	7,245.97	7" Intermediate Casing	7	8-3/4

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
125.00	124.98	1.20	-1.62	First Gyro Survey @ 125.00ft
855.00	854.96	-0.21	-2.80	Final Gyro Survey @ 855.00ft
855.00	854.96	-0.21	-2.80	Tie-on to Gyro Surveys @ 855.00ft
982.00	981.95	-0.56	-3.05	First Sperry MWD Survey @ 982.00ft
7,716.00	7,245.97	275.18	866.64	7" Casing Point @ 7716.00ft
11,706.00	7,251.25	4,259.91	734.41	Final Sperry Survey @ 11706.00ft
11,748.00	7,253.35	4,301.84	733.25	Straight Line Projection to TD @ 11748.00ft

Halliburton Company

Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Camp 2 Pad_Section	- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)	0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- Polygon										
Point 1				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Point 2				0.00	4,781.68	2,204.44	1,317,926.64	3,216,405.48		
Point 3				0.00	4,838.96	4,849.36	1,318,006.79	3,219,049.70		
Point 4				0.00	2,204.58	4,852.60	1,315,372.65	3,219,075.72		
Point 5				0.00	-434.80	4,856.09	1,312,733.51	3,219,102.03		
Point 6				0.00	-467.02	2,175.46	1,312,678.11	3,216,421.90		
Point 7				0.00	-499.22	-505.15	1,312,622.73	3,213,741.78		
Point 8				0.00	2,132.17	-505.79	1,315,253.90	3,213,718.38		
Point 9				0.00	4,763.52	-506.41	1,317,885.04	3,213,695.01		
Camp 2 Pad_Setback	- actual wellpath misses target center by 2.59ft at 0.01ft MD (0.01 TVD, 0.00 N, 0.00 E)	0.00	0.00	0.00	2.45	0.84	1,313,128.73	3,214,243.39	40° 11' 25.410 N	104° 43' 59.210 W
- Polygon										
Point 1				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Point 2				0.00	4,321.68	2,200.46	1,317,466.64	3,216,405.48		
Point 3				0.00	4,382.94	4,385.38	1,317,546.79	3,218,589.70		
Point 4				0.00	2,208.56	4,392.60	1,315,372.65	3,218,615.72		
Point 5				0.00	29.18	4,400.06	1,313,193.51	3,218,642.03		
Point 6				0.00	-7.02	2,179.44	1,313,138.11	3,216,421.90		
Point 7				0.00	-43.20	-41.17	1,313,082.73	3,214,201.78		
Point 8				0.00	2,128.19	-45.79	1,315,253.90	3,214,178.38		
Point 9				0.00	4,299.54	-50.39	1,317,425.04	3,214,155.00		
Camp 29N -25HZ_Pla	- actual wellpath misses target center by 70.26ft at 9675.10ft MD (7220.24 TVD, 2231.18 N, 794.65 E)	0.00	0.00	7,290.40	2,229.56	797.92	1,315,362.56	3,215,021.15	40° 11' 47.418 N	104° 43' 48.939 W
- Point										
Camp 29N -25HZ_Pla	- actual wellpath misses target center by 30.05ft at 11748.00ft MD (7253.35 TVD, 4301.84 N, 733.25 E)	0.00	0.00	7,280.00	4,310.00	722.00	1,317,442.17	3,214,927.24	40° 12' 7.977 N	104° 43' 49.916 W
- Point										
Camp 29N -25HZ_Pla	- actual wellpath hits target center	0.00	0.00	0.00	0.02	0.00	1,313,126.30	3,214,242.57	40° 11' 25.386 N	104° 43' 59.221 W
- Point										

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,716.00	7,245.97	7" Intermediate Casing	7	8-3/4

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
125.00	124.98	1.20	-1.62	First Gyro Survey @ 125.00ft
855.00	854.96	-0.21	-2.80	Final Gyro Survey @ 855.00ft
855.00	854.96	-0.21	-2.80	Tie-on to Gyro Surveys @ 855.00ft
982.00	981.95	-0.56	-3.05	First Sperry MWD Survey @ 982.00ft
7,716.00	7,245.97	275.18	866.64	7" Casing Point @ 7716.00ft
11,706.00	7,251.25	4,259.91	734.41	Final Sperry Survey @ 11706.00ft
11,748.00	7,253.35	4,301.84	733.25	Straight Line Projection to TD @ 11748.00ft

Halliburton Company
Survey Report - Geographic

Company:	Anadarko Petroleum Corp.	Local Co-ordinate Reference:	Well Camp 29N-25HZ ReLoc
Project:	Weld County, CO (NAD 83)	TVD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Site:	Sec. 25-T3N-R66W	MD Reference:	RKB 25' @ 5068.00ft (H&P 308)
Well:	Camp 29N-25HZ ReLoc	North Reference:	True
Wellbore:	Plan B Rev 5	Survey Calculation Method:	Minimum Curvature
Design:	Actual Field Surveys	Database:	Sperry Compass 2003.16 Network

Checked By: _____ Approved By: _____ Date: _____