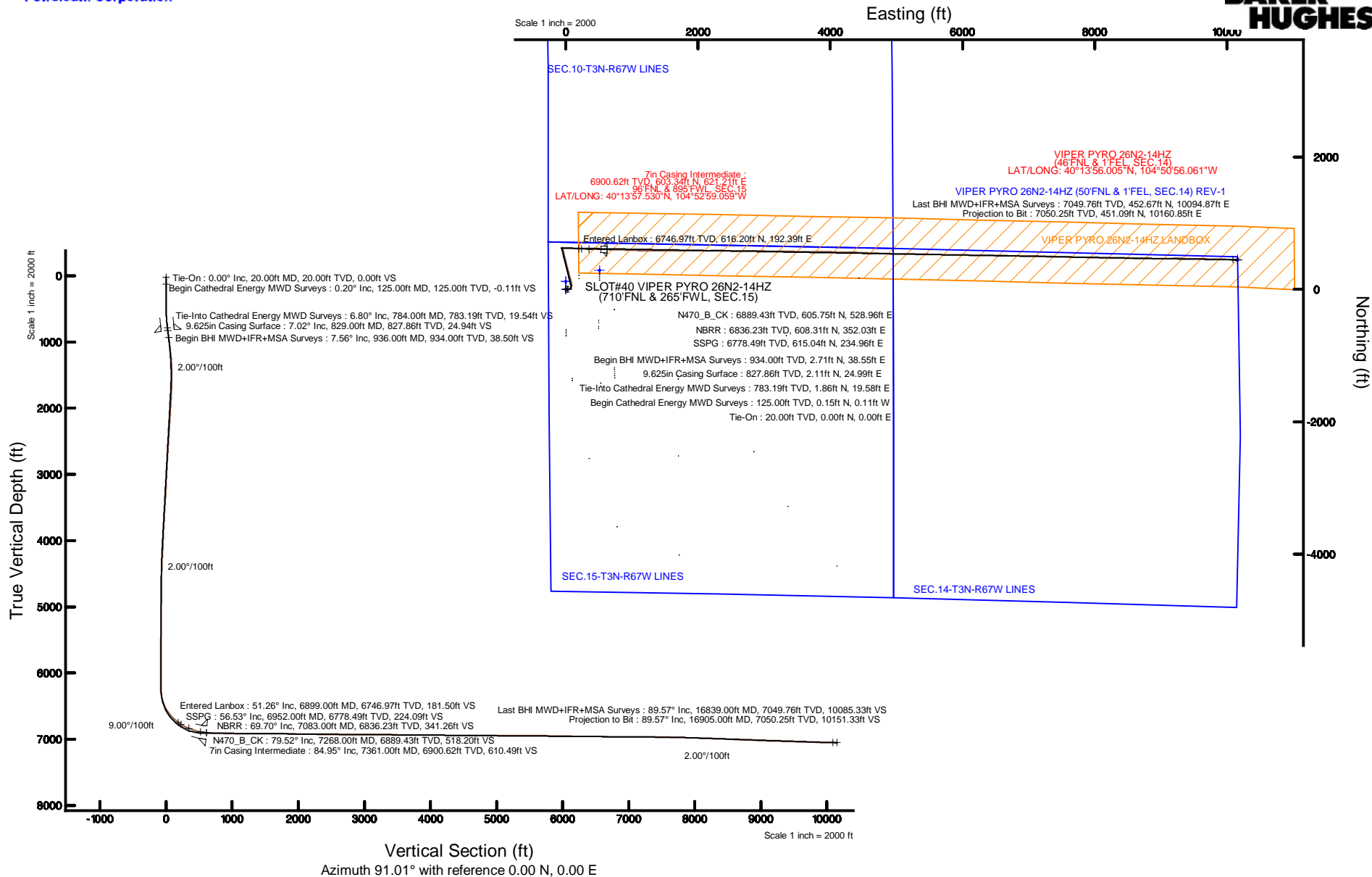


Anadarko
Petroleum Corporation

True vertical depths are referenced to PRECISION 462 (20'KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to PRECISION 462 (20'KB) (RKB)	North Reference: True north
PRECISION 462 (20'KB) (RKB) to Mean Sea Level: 4814 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 8/24/2015



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.999601	Report Generated	8/24/2015 at 1:10:27 PM
Convergence at slot	0.07° East	Database/Source file	WellArchitectAPC/VIPER_PYRO_26N2-14HZ_AWB__16905_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1303.96	-1743.94	1672430.87	14610869.05	40°13'51.568"N	104°53'07.069"W
Facility Reference Pt			1674175.89	14609568.00	40°13'38.683"N	104°52'44.584"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PRECISION 462 (20'KB) (RKB) to Facility Vertical Datum	4814.00ft
Horizontal Reference Pt	Slot	PRECISION 462 (20'KB) (RKB) to Mean Sea Level	4814.00ft
Vertical Reference Pt	PRECISION 462 (20'KB) (RKB)	PRECISION 462 (20'KB) (RKB) to Mud Line at Slot (SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15))	4814.00ft
MD Reference Pt	PRECISION 462 (20'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	91.01°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH DATA (194 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	324.600	0.00	0.00	0.00	0.00	40°13'51.568"N	104°53'07.069"W	0.00	
20.00	0.000	324.600	20.00	0.00	0.00	0.00	40°13'51.568"N	104°53'07.069"W	0.00	Tie-On
125.00	0.200	324.600	125.00	-0.11	0.15	-0.11	40°13'51.569"N	104°53'07.070"W	0.19	Begin Cathedral Energy MWD Surveys
187.00	0.300	308.300	187.00	-0.30	0.34	-0.30	40°13'51.571"N	104°53'07.073"W	0.20	
249.00	0.500	310.000	249.00	-0.64	0.61	-0.63	40°13'51.574"N	104°53'07.077"W	0.32	
311.00	0.200	292.300	311.00	-0.95	0.83	-0.94	40°13'51.576"N	104°53'07.081"W	0.51	
373.00	0.400	103.500	373.00	-0.84	0.82	-0.83	40°13'51.576"N	104°53'07.080"W	0.97	
457.00	0.600	106.200	456.99	-0.13	0.63	-0.12	40°13'51.574"N	104°53'07.071"W	0.24	
542.00	1.400	83.200	541.98	1.33	0.63	1.34	40°13'51.574"N	104°53'07.052"W	1.03	
627.00	3.500	83.800	626.90	4.93	1.03	4.95	40°13'51.578"N	104°53'07.005"W	2.47	
712.00	5.700	87.400	711.62	11.72	1.50	11.75	40°13'51.583"N	104°53'06.918"W	2.61	
784.00	6.800	87.300	783.19	19.54	1.86	19.58	40°13'51.586"N	104°53'06.817"W	1.53	Tie-Into Cathedral Energy MWD Surveys
936.00	7.560	87.600	934.00	38.50	2.71	38.55	40°13'51.595"N	104°53'06.572"W	0.50	Begin BHI MWD+IFR+MSA Surveys
1029.00	7.560	75.330	1026.19	50.50	4.51	50.59	40°13'51.613"N	104°53'06.417"W	1.73	
1122.00	8.280	60.710	1118.32	62.17	9.34	62.35	40°13'51.660"N	104°53'06.265"W	2.29	
1215.00	7.790	48.180	1210.41	72.58	16.82	72.88	40°13'51.734"N	104°53'06.129"W	1.95	
1308.00	7.520	31.280	1302.59	80.27	26.22	80.74	40°13'51.827"N	104°53'06.028"W	2.43	
1402.00	8.280	12.750	1395.71	84.75	38.08	85.43	40°13'51.944"N	104°53'05.968"W	2.81	
1495.00	9.280	4.090	1487.63	86.51	52.09	87.44	40°13'52.083"N	104°53'05.942"W	1.78	
1588.00	10.650	355.950	1579.23	86.16	68.15	87.37	40°13'52.241"N	104°53'05.942"W	2.11	
1681.00	11.560	348.610	1670.49	83.40	85.86	84.92	40°13'52.416"N	104°53'05.974"W	1.81	
1774.00	11.170	349.330	1761.67	79.57	103.84	81.42	40°13'52.594"N	104°53'06.019"W	0.45	
1960.00	12.280	344.920	1943.79	70.45	140.65	72.93	40°13'52.958"N	104°53'06.129"W	0.77	
2146.00	10.680	343.050	2126.06	59.65	176.24	62.76	40°13'53.310"N	104°53'06.260"W	0.88	
2239.00	11.290	342.110	2217.35	54.04	193.14	57.45	40°13'53.477"N	104°53'06.328"W	0.68	
2332.00	12.640	343.760	2308.33	48.08	211.58	51.81	40°13'53.659"N	104°53'06.401"W	1.50	
2425.00	13.720	346.270	2398.88	42.25	232.06	46.35	40°13'53.861"N	104°53'06.471"W	1.31	
2518.00	13.770	345.760	2489.22	36.54	253.50	41.01	40°13'54.073"N	104°53'06.540"W	0.14	
2607.00	13.570	346.730	2575.70	31.17	273.93	36.01	40°13'54.275"N	104°53'06.605"W	0.34	
2697.00	13.080	345.850	2663.27	25.91	294.08	31.09	40°13'54.474"N	104°53'06.668"W	0.59	
2787.00	12.210	344.910	2751.09	20.60	313.15	26.12	40°13'54.662"N	104°53'06.732"W	0.99	
2877.00	11.230	345.360	2839.21	15.60	330.82	21.43	40°13'54.837"N	104°53'06.793"W	1.09	
2966.00	10.210	345.510	2926.66	11.16	346.84	17.27	40°13'54.995"N	104°53'06.846"W	1.15	
3056.00	10.470	344.650	3015.20	6.72	362.45	13.11	40°13'55.150"N	104°53'06.900"W	0.34	
3146.00	10.880	347.480	3103.64	2.43	378.62	9.10	40°13'55.310"N	104°53'06.952"W	0.74	
3236.00	11.530	349.300	3191.92	-1.38	395.76	5.59	40°13'55.479"N	104°53'06.997"W	0.82	
3325.00	12.080	346.560	3279.04	-5.51	413.55	1.77	40°13'55.655"N	104°53'07.046"W	0.88	
3415.00	12.390	343.350	3367.00	-10.79	431.96	-3.18	40°13'55.837"N	104°53'07.110"W	0.83	
3505.00	11.160	342.190	3455.10	-16.53	449.51	-8.61	40°13'56.010"N	104°53'07.180"W	1.39	
3595.00	11.590	344.900	3543.34	-21.85	466.53	-13.63	40°13'56.178"N	104°53'07.245"W	0.76	
3685.00	13.310	347.000	3631.22	-26.86	485.35	-18.32	40°13'56.364"N	104°53'07.305"W	1.98	
3775.00	12.790	347.010	3718.89	-31.78	505.15	-22.89	40°13'56.560"N	104°53'07.364"W	0.58	
3865.00	12.550	348.000	3806.70	-36.39	524.43	-27.16	40°13'56.750"N	104°53'07.419"W	0.36	
3955.00	10.620	345.780	3894.86	-40.77	542.03	-31.23	40°13'56.924"N	104°53'07.472"W	2.20	
4044.00	10.020	347.160	3982.42	-44.78	557.53	-34.97	40°13'57.077"N	104°53'07.520"W	0.73	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH DATA (194 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4134.00	10.430	346.530	4070.99	-48.69	573.09	-38.60	40°13'57.231"N	104°53'07.567"W	0.47	
4224.00	9.040	341.050	4159.70	-53.14	587.70	-42.80	40°13'57.376"N	104°53'07.621"W	1.85	
4314.00	8.250	336.790	4248.68	-58.21	600.32	-47.64	40°13'57.500"N	104°53'07.683"W	1.13	
4404.00	7.260	338.550	4337.85	-63.03	611.55	-52.26	40°13'57.611"N	104°53'07.743"W	1.13	
4494.00	5.300	354.460	4427.31	-65.67	620.98	-54.74	40°13'57.704"N	104°53'07.775"W	2.89	
4583.00	2.830	354.610	4516.08	-66.39	627.26	-55.35	40°13'57.767"N	104°53'07.783"W	2.78	
4673.00	1.110	323.440	4606.03	-67.17	630.17	-56.08	40°13'57.795"N	104°53'07.792"W	2.18	
4763.00	1.360	318.960	4696.01	-68.41	631.68	-57.30	40°13'57.810"N	104°53'07.808"W	0.30	
4853.00	1.020	272.560	4785.99	-69.93	632.52	-58.80	40°13'57.819"N	104°53'07.827"W	1.10	
4943.00	1.390	232.010	4875.97	-71.58	631.88	-60.46	40°13'57.812"N	104°53'07.849"W	1.00	
5032.00	1.310	244.680	4964.95	-73.33	630.78	-62.23	40°13'57.801"N	104°53'07.871"W	0.35	
5122.00	1.160	250.790	5054.93	-75.11	630.04	-64.02	40°13'57.794"N	104°53'07.894"W	0.22	
5212.00	0.960	247.030	5144.91	-76.65	629.45	-65.57	40°13'57.788"N	104°53'07.914"W	0.24	
5302.00	1.010	230.560	5234.90	-77.94	628.65	-66.88	40°13'57.780"N	104°53'07.931"W	0.32	
5392.00	1.110	219.790	5324.88	-79.09	627.48	-68.05	40°13'57.769"N	104°53'07.946"W	0.25	
5482.00	0.300	233.160	5414.87	-79.82	626.67	-68.80	40°13'57.761"N	104°53'07.956"W	0.91	
5661.00	1.430	254.530	5593.85	-82.34	625.79	-71.32	40°13'57.752"N	104°53'07.989"W	0.65	
5751.00	0.180	38.080	5683.84	-83.33	625.60	-72.32	40°13'57.750"N	104°53'08.001"W	1.75	
5841.00	0.130	259.330	5773.84	-83.34	625.69	-72.33	40°13'57.751"N	104°53'08.002"W	0.32	
5931.00	0.280	191.740	5863.84	-83.48	625.46	-72.48	40°13'57.749"N	104°53'08.003"W	0.29	
6020.00	0.580	214.070	5952.84	-83.77	624.87	-72.77	40°13'57.743"N	104°53'08.007"W	0.38	
6110.00	0.680	204.060	6042.83	-84.23	624.01	-73.25	40°13'57.734"N	104°53'08.013"W	0.16	
6200.00	0.650	220.230	6132.83	-84.76	623.13	-73.79	40°13'57.726"N	104°53'08.020"W	0.21	
6290.00	0.440	191.820	6222.82	-85.15	622.40	-74.20	40°13'57.719"N	104°53'08.026"W	0.37	
6335.00	4.100	100.390	6267.79	-83.59	621.94	-72.65	40°13'57.714"N	104°53'08.006"W	9.19	
6379.00	8.850	97.710	6311.49	-78.68	621.21	-67.74	40°13'57.707"N	104°53'07.942"W	10.81	
6469.00	16.880	91.190	6399.17	-58.70	620.00	-47.79	40°13'57.695"N	104°53'07.685"W	9.05	
6559.00	23.370	91.020	6483.63	-27.75	619.41	-16.84	40°13'57.689"N	104°53'07.286"W	7.21	
6649.00	31.240	90.030	6563.54	13.50	619.08	24.41	40°13'57.686"N	104°53'06.754"W	8.76	
6739.00	40.610	90.850	6636.34	66.24	618.64	77.15	40°13'57.681"N	104°53'06.074"W	10.42	
6829.00	47.080	91.370	6701.21	128.55	617.41	139.45	40°13'57.669"N	104°53'05.271"W	7.20	
6919.00	52.450	91.230	6759.32	197.23	615.86	208.11	40°13'57.654"N	104°53'04.386"W	5.97	
6952.00†	56.532	92.243	6778.49	224.09	615.04	234.96	40°13'57.646"N	104°53'04.040"W	12.62	SSPG
7009.00	63.600	93.790	6806.91	273.42	612.42	284.25	40°13'57.620"N	104°53'03.404"W	12.62	
7083.00†	69.703	93.153	6836.23	341.26	608.31	352.03	40°13'57.579"N	104°53'02.530"W	8.28	NBRR
7098.00	70.940	93.030	6841.28	355.38	607.55	366.14	40°13'57.572"N	104°53'02.348"W	8.28	
7144.00	71.680	91.690	6856.02	398.94	605.76	409.67	40°13'57.554"N	104°53'01.787"W	3.19	
7188.00	72.070	89.600	6869.71	440.75	605.29	451.48	40°13'57.549"N	104°53'01.248"W	4.60	
7233.00	76.110	89.350	6882.04	484.00	605.68	494.75	40°13'57.553"N	104°53'00.690"W	8.99	
7268.00†	79.516	90.411	6889.43	518.20	605.75	528.96	40°13'57.554"N	104°53'00.249"W	10.17	N470_B_CK
7278.00	80.490	90.710	6891.17	528.05	605.66	538.80	40°13'57.553"N	104°53'00.122"W	10.17	
7307.00	83.520	91.780	6895.20	556.76	605.03	567.51	40°13'57.547"N	104°52'59.752"W	11.07	
7361.00†	84.946	91.831	6900.62	610.49	603.34	621.21	40°13'57.530"N	104°52'59.059"W	2.64	7" Casing Point
7435.00	86.900	91.900	6905.89	684.29	600.94	694.98	40°13'57.506"N	104°52'58.108"W	2.64	
7480.00	87.150	91.550	6908.22	729.22	599.58	739.90	40°13'57.493"N	104°52'57.529"W	0.95	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH DATA (194 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7570.00	87.980	91.610	6912.04	819.14	597.11	829.78	40°13'57.468"N	104°52'56.370"W	0.92	
7660.00	89.180	92.140	6914.27	909.10	594.16	919.70	40°13'57.439"N	104°52'55.211"W	1.46	
7750.00	89.550	91.890	6915.27	999.08	591.00	1009.64	40°13'57.408"N	104°52'54.051"W	0.50	
7840.00	89.990	92.030	6915.63	1089.06	587.92	1099.59	40°13'57.378"N	104°52'52.891"W	0.51	
7929.00	90.310	91.350	6915.40	1178.06	585.29	1188.55	40°13'57.352"N	104°52'51.744"W	0.84	
8019.00	90.320	90.150	6914.91	1268.05	584.12	1278.54	40°13'57.340"N	104°52'50.584"W	1.33	
8109.00	89.580	89.960	6914.98	1358.04	584.03	1368.54	40°13'57.339"N	104°52'49.424"W	0.85	
8199.00	89.640	90.220	6915.60	1448.02	583.89	1458.54	40°13'57.338"N	104°52'48.263"W	0.30	
8288.00	90.400	90.040	6915.57	1537.01	583.69	1547.53	40°13'57.335"N	104°52'47.116"W	0.88	
8378.00	89.630	90.110	6915.54	1627.00	583.57	1637.53	40°13'57.334"N	104°52'45.955"W	0.86	
8468.00	89.600	89.530	6916.15	1716.98	583.85	1727.53	40°13'57.337"N	104°52'44.795"W	0.65	
8558.00	88.730	89.420	6917.46	1806.94	584.68	1817.52	40°13'57.345"N	104°52'43.635"W	0.97	
8648.00	89.130	89.540	6919.14	1896.89	585.49	1907.50	40°13'57.353"N	104°52'42.475"W	0.46	
8738.00	89.010	89.650	6920.60	1986.85	586.13	1997.48	40°13'57.359"N	104°52'41.314"W	0.18	
8827.00	88.670	89.280	6922.40	2075.80	586.96	2086.46	40°13'57.367"N	104°52'40.167"W	0.56	
8917.00	88.630	88.860	6924.52	2165.72	588.42	2176.42	40°13'57.382"N	104°52'39.007"W	0.47	
9007.00	88.540	89.910	6926.74	2255.66	589.39	2266.39	40°13'57.391"N	104°52'37.847"W	1.17	
9097.00	89.400	90.670	6928.36	2345.63	588.93	2356.37	40°13'57.387"N	104°52'36.687"W	1.28	
9186.00	89.250	90.540	6929.41	2434.62	587.99	2445.36	40°13'57.377"N	104°52'35.540"W	0.22	
9276.00	89.280	90.720	6930.57	2524.62	587.00	2535.35	40°13'57.367"N	104°52'34.380"W	0.20	
9366.00	89.030	90.400	6931.89	2614.60	586.12	2625.33	40°13'57.359"N	104°52'33.219"W	0.45	
9456.00	89.990	90.800	6932.66	2704.60	585.18	2715.33	40°13'57.349"N	104°52'32.059"W	1.16	
9545.00	90.140	90.670	6932.56	2793.59	584.04	2804.32	40°13'57.338"N	104°52'30.912"W	0.22	
9635.00	90.320	90.640	6932.20	2883.59	583.01	2894.31	40°13'57.328"N	104°52'29.751"W	0.20	
9725.00	90.170	90.760	6931.82	2973.59	581.91	2984.30	40°13'57.317"N	104°52'28.591"W	0.21	
9815.00	89.920	90.770	6931.74	3063.59	580.71	3074.30	40°13'57.305"N	104°52'27.431"W	0.28	
9905.00	89.710	90.910	6932.04	3153.59	579.39	3164.29	40°13'57.291"N	104°52'26.270"W	0.28	
9995.00	89.580	90.860	6932.59	3243.59	578.00	3254.27	40°13'57.278"N	104°52'25.110"W	0.15	
10084.00	89.610	90.940	6933.22	3332.58	576.60	3343.26	40°13'57.264"N	104°52'23.963"W	0.10	
10174.00	89.700	90.910	6933.76	3422.58	575.15	3433.25	40°13'57.249"N	104°52'22.803"W	0.11	
10264.00	89.550	90.780	6934.35	3512.58	573.82	3523.23	40°13'57.236"N	104°52'21.642"W	0.22	
10354.00	89.430	90.840	6935.15	3602.58	572.55	3613.22	40°13'57.223"N	104°52'20.482"W	0.15	
10447.00	88.960	90.650	6936.46	3695.57	571.34	3706.20	40°13'57.211"N	104°52'19.283"W	0.55	
10540.00	89.210	90.640	6937.95	3788.55	570.29	3799.19	40°13'57.201"N	104°52'18.084"W	0.27	
10633.00	89.490	90.690	6939.00	3881.54	569.21	3892.17	40°13'57.190"N	104°52'16.885"W	0.31	
10726.00	89.270	90.740	6940.01	3974.54	568.05	3985.16	40°13'57.178"N	104°52'15.686"W	0.24	
10819.00	89.980	90.670	6940.62	4067.53	566.91	4078.15	40°13'57.167"N	104°52'14.487"W	0.77	
10912.00	89.890	90.470	6940.72	4160.53	565.98	4171.15	40°13'57.158"N	104°52'13.288"W	0.24	
11005.00	88.930	91.430	6941.68	4253.52	564.44	4264.13	40°13'57.142"N	104°52'12.090"W	1.46	
11099.00	88.100	91.410	6944.11	4347.49	562.11	4358.07	40°13'57.119"N	104°52'10.878"W	0.88	
11192.00	88.960	92.320	6946.50	4440.45	559.09	4450.98	40°13'57.089"N	104°52'09.680"W	1.35	
11285.00	90.380	92.740	6947.04	4533.41	554.98	4543.89	40°13'57.048"N	104°52'08.482"W	1.59	
11378.00	90.040	92.260	6946.70	4626.38	550.92	4636.80	40°13'57.008"N	104°52'07.285"W	0.63	
11471.00	90.010	93.220	6946.65	4719.33	546.48	4729.69	40°13'56.964"N	104°52'06.087"W	1.03	
11564.00	89.300	91.120	6947.22	4812.31	542.96	4822.62	40°13'56.929"N	104°52'04.889"W	2.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH DATA (194 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11657.00	90.320	91.610	6947.52	4905.30	540.74	4915.59	40°13'56.907"N	104°52'03.690"W	1.22	
11750.00	89.860	90.450	6947.38	4998.30	539.07	5008.57	40°13'56.890"N	104°52'02.491"W	1.34	
11843.00	89.950	90.470	6947.53	5091.30	538.32	5101.57	40°13'56.882"N	104°52'01.292"W	0.10	
11936.00	90.190	90.860	6947.42	5184.29	537.24	5194.56	40°13'56.872"N	104°52'00.093"W	0.49	
12029.00	90.070	90.750	6947.21	5277.29	535.94	5287.55	40°13'56.859"N	104°51'58.894"W	0.18	
12122.00	90.220	90.960	6946.97	5370.29	534.55	5380.54	40°13'56.845"N	104°51'57.695"W	0.28	
12215.00	90.160	91.410	6946.66	5463.29	532.63	5473.52	40°13'56.825"N	104°51'56.496"W	0.49	
12304.00	89.980	91.850	6946.55	5552.29	530.10	5562.49	40°13'56.800"N	104°51'55.349"W	0.53	
12394.00	89.730	92.490	6946.78	5642.27	526.69	5652.42	40°13'56.766"N	104°51'54.190"W	0.76	
12484.00	89.080	90.850	6947.72	5732.25	524.07	5742.37	40°13'56.740"N	104°51'53.030"W	1.96	
12574.00	88.070	90.740	6949.95	5822.22	522.82	5832.34	40°13'56.728"N	104°51'51.870"W	1.13	
12664.00	89.270	90.870	6952.04	5912.20	521.55	5922.30	40°13'56.715"N	104°51'50.710"W	1.34	
12753.00	89.240	90.880	6953.20	6001.19	520.19	6011.28	40°13'56.701"N	104°51'49.563"W	0.04	
12843.00	89.020	90.950	6954.57	6091.18	518.76	6101.26	40°13'56.687"N	104°51'48.403"W	0.26	
12933.00	89.150	91.020	6956.00	6181.17	517.21	6191.24	40°13'56.671"N	104°51'47.243"W	0.16	
13023.00	88.190	90.760	6958.09	6271.14	515.81	6281.20	40°13'56.657"N	104°51'46.083"W	1.11	
13113.00	89.760	90.510	6959.70	6361.12	514.82	6371.18	40°13'56.647"N	104°51'44.923"W	1.77	
13203.00	89.760	90.510	6960.08	6451.12	514.01	6461.17	40°13'56.639"N	104°51'43.762"W	0.00	
13292.00	89.360	90.670	6960.76	6540.11	513.10	6550.17	40°13'56.630"N	104°51'42.615"W	0.48	
13382.00	89.520	90.780	6961.64	6630.11	511.96	6640.15	40°13'56.618"N	104°51'41.455"W	0.22	
13472.00	89.120	90.590	6962.71	6720.10	510.88	6730.14	40°13'56.607"N	104°51'40.294"W	0.49	
13562.00	88.780	90.670	6964.36	6810.08	509.89	6820.12	40°13'56.597"N	104°51'39.134"W	0.39	
13652.00	89.330	90.500	6965.85	6900.07	508.97	6910.10	40°13'56.588"N	104°51'37.974"W	0.64	
13742.00	89.640	91.290	6966.65	6990.06	507.57	7000.09	40°13'56.574"N	104°51'36.814"W	0.94	
13831.00	89.360	91.140	6967.43	7079.06	505.68	7089.06	40°13'56.555"N	104°51'35.667"W	0.36	
13921.00	90.530	91.440	6967.52	7169.05	503.66	7179.04	40°13'56.535"N	104°51'34.506"W	1.34	
14011.00	90.620	91.450	6966.61	7259.05	501.39	7269.01	40°13'56.512"N	104°51'33.346"W	0.10	
14101.00	90.380	92.350	6965.83	7349.03	498.40	7358.95	40°13'56.482"N	104°51'32.187"W	1.03	
14191.00	89.050	91.860	6966.28	7439.01	495.10	7448.89	40°13'56.449"N	104°51'31.027"W	1.57	
14280.00	89.510	92.140	6967.39	7527.99	491.99	7537.83	40°13'56.418"N	104°51'29.880"W	0.61	
14370.00	88.310	91.850	6969.11	7617.96	488.86	7627.75	40°13'56.387"N	104°51'28.721"W	1.37	
14460.00	88.930	91.850	6971.27	7707.92	485.95	7717.68	40°13'56.358"N	104°51'27.562"W	0.69	
14550.00	87.660	90.650	6973.95	7797.88	483.99	7807.62	40°13'56.339"N	104°51'26.402"W	1.94	
14639.00	87.940	90.800	6977.37	7886.81	482.87	7896.54	40°13'56.327"N	104°51'25.255"W	0.36	
14729.00	88.220	91.010	6980.38	7976.76	481.45	7986.48	40°13'56.313"N	104°51'24.096"W	0.39	
14819.00	88.340	91.120	6983.09	8066.72	479.77	8076.43	40°13'56.296"N	104°51'22.936"W	0.18	
14909.00	88.130	91.290	6985.86	8156.68	477.88	8166.36	40°13'56.277"N	104°51'21.777"W	0.30	
14999.00	87.910	91.350	6988.97	8246.62	475.81	8256.29	40°13'56.256"N	104°51'20.617"W	0.25	
15088.00	87.570	91.490	6992.48	8335.55	473.61	8345.19	40°13'56.234"N	104°51'19.471"W	0.41	
15178.00	87.510	90.990	6996.34	8425.47	471.66	8435.08	40°13'56.215"N	104°51'18.312"W	0.56	
15268.00	87.020	90.880	7000.63	8515.36	470.19	8524.97	40°13'56.200"N	104°51'17.153"W	0.56	
15358.00	86.960	90.720	7005.36	8605.24	468.94	8614.84	40°13'56.187"N	104°51'15.994"W	0.19	
15447.00	88.400	90.450	7008.96	8694.16	468.03	8703.76	40°13'56.178"N	104°51'14.848"W	1.65	
15537.00	87.660	90.170	7012.06	8784.10	467.54	8793.70	40°13'56.173"N	104°51'13.688"W	0.88	
15627.00	87.720	90.120	7015.68	8874.02	467.32	8883.63	40°13'56.170"N	104°51'12.529"W	0.09	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH DATA (194 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15717.00	87.510	89.750	7019.43	8963.92	467.42	8973.55	40°13'56.171"N	104°51'11.369"W	0.47	
15806.00	87.540	89.500	7023.27	9052.81	468.00	9062.46	40°13'56.176"N	104°51'10.223"W	0.28	
15896.00	87.910	89.250	7026.85	9142.71	468.98	9152.39	40°13'56.186"N	104°51'09.063"W	0.50	
15986.00	88.460	89.480	7029.70	9232.62	469.98	9242.34	40°13'56.195"N	104°51'07.904"W	0.66	
16076.00	87.970	91.210	7032.50	9322.57	469.44	9332.29	40°13'56.190"N	104°51'06.744"W	2.00	
16165.00	87.880	90.970	7035.72	9411.51	467.74	9421.21	40°13'56.173"N	104°51'05.597"W	0.29	
16255.00	88.400	91.150	7038.64	9501.46	466.08	9511.15	40°13'56.156"N	104°51'04.438"W	0.61	
16345.00	88.520	91.170	7041.06	9591.43	464.26	9601.10	40°13'56.137"N	104°51'03.278"W	0.14	
16435.00	88.430	91.160	7043.46	9681.40	462.43	9691.05	40°13'56.119"N	104°51'02.118"W	0.10	
16524.00	88.800	91.320	7045.61	9770.37	460.50	9780.00	40°13'56.100"N	104°51'00.971"W	0.45	
16614.00	89.080	91.390	7047.27	9860.36	458.38	9869.96	40°13'56.078"N	104°50'59.811"W	0.32	
16704.00	89.360	91.530	7048.50	9950.34	456.08	9959.92	40°13'56.055"N	104°50'58.652"W	0.35	
16839.00	89.570	91.370	7049.76	10085.33	452.67	10094.87	40°13'56.021"N	104°50'56.912"W	0.20	Last BHI MWD+IFR+MSA Surveys
16905.00	89.570	91.370	7050.25	10151.33	451.09	10160.85	40°13'56.005"N	104°50'56.061"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: VIPER PYRO 26N2-14HZ AWB <16905> Ref Wellpath: VIPER PYRO 26N2-14HZ AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	20.00	839.00	819.00	20.00	837.79	0.00	0.00	2.17	26.21
9.625in Casing Surface	20.00	829.00	809.00	20.00	827.86	0.00	0.00	2.11	24.99
8.75in Open Hole	839.00	7372.00	6533.00	837.79	6901.57	2.17	26.21	602.99	632.16
7in Casing Intermediate	20.00	7361.00	7341.00	20.00	6900.62	0.00	0.00	603.34	621.21
6.125in Open Hole	7372.00	16905.00	9533.00	6901.57	7050.25	602.99	632.16	451.09	10160.85

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.10-T3N-R67W LINES	0.00	120.22	-0.85	1672429.86	14610989.22	40°13'52.756"N	104°53'07.080"W	polygon
SEC.14-T3N-R67W LINES	0.00	120.22	-0.85	1672429.86	14610989.22	40°13'52.756"N	104°53'07.080"W	polygon
SEC.15-T3N-R67W LINES	5.00	290.64	508.17	1672938.46	14611160.23	40°13'54.440"N	104°53'00.517"W	polygon
VIPER PYRO 26N2-14HZ (50'FNL & 1'FEL, SEC.14) REV-1	7055.00	446.49	10160.80	1682587.01	14611328.50	40°13'55.960"N	104°50'56.062"W	point
VIPER PYRO 26N2-14HZ LANDBOX	7055.00	0.00	0.00	1672430.87	14610869.05	40°13'51.568"N	104°53'07.069"W	polygon



Actual Wellpath Report
VIPER PYRO 26N2-14HZ AWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH COMPOSITION - Ref Wellbore: VIPER PYRO 26N2-14HZ AWB <16905> Ref Wellpath: VIPER PYRO 26N2-14HZ AWP			
Start MD	End MD	Positional Uncertainty Model	Log Name/Comment
[ft]	[ft]		Wellbore
20.00	784.00	Custom APC_ISCWSA REV 2 MWD	CATHEDRAL ENERGY MWD SURVEYS <125-784> VIPER PYRO 26N2-14HZ AWB <16905>
784.00	7307.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHI MWD+IFR+MSA 8 1/2" HOLE <936-7307> VIPER PYRO 26N2-14HZ AWB <16905>
7307.00	16839.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHI MWD+IFR+MSA 6 1/8" HOLE <7435-16839> VIPER PYRO 26N2-14HZ AWB <16905>
16839.00	16905.00	Blind Drilling (std)	Projection to bit VIPER PYRO 26N2-14HZ AWB <16905>

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 VIPER PYRO 26N2-14HZ (710'FNL & 265'FWL, SEC.15)
Area	COLORADO	Well	VIPER PYRO 26N2-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VIPER PYRO 26N2-14HZ AWB <16905>
Facility	SEC.15-T3N-R67W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
20.00	0.000	324.600	20.00	Tie-On	
125.00	0.200	324.600	125.00	Begin Cathedral Energy MWD Surveys	
784.00	6.800	87.300	783.19	Tie-Into Cathedral Energy MWD Surveys	
936.00	7.560	87.600	934.00	Begin BHI MWD+IFR+MSA Surveys	
6952.00	56.532	92.243	6778.49	SSPG	
7083.00	69.703	93.153	6836.23	NBRR	
7268.00	79.516	90.411	6889.43	N470_B_CK	
7361.00	84.946	91.831	6900.62	7" Casing Point	
16839.00	89.570	91.370	7049.76	Last BHI MWD+IFR+MSA Surveys	
16905.00	89.570	91.370	7050.25	Projection to Bit	