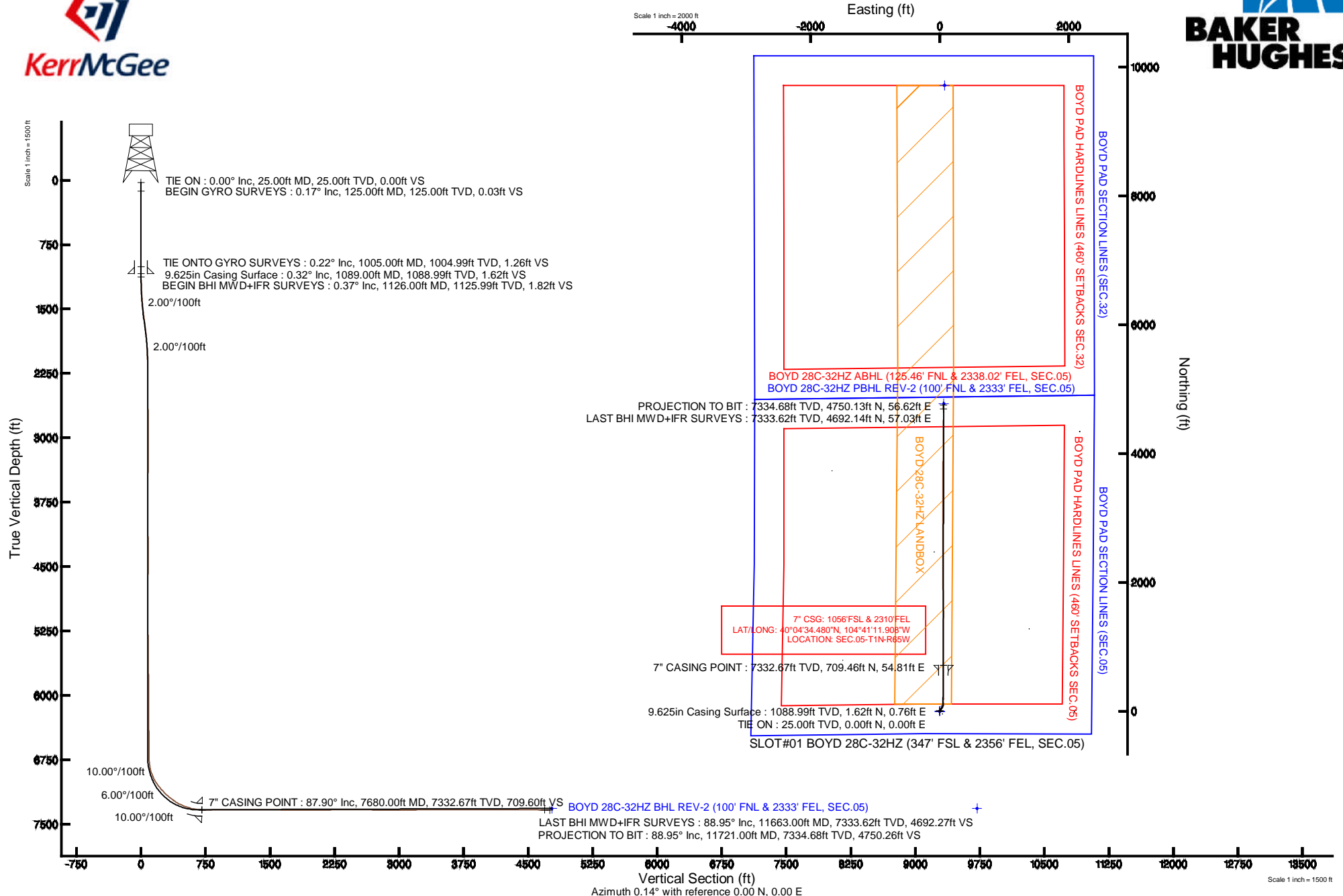


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
 Field: WELD COUNTY (KERR MCGEE) Well: BOYD 28C-32HZ
 Facility: SEC.05-T1N-R65W Wellbore: BOYD 28C-32HZ PWB

Plot reference wellpath is BOYD 28C-32HZ (REV-B.0) PWP

True vertical depths are referenced to H&P 307 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 307 (RKB)	North Reference: True north
H&P 307 (RKB) to Mean Sea Level: 4975 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 19/Feb/2014



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO	Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999962	Report Generated	19/Feb/2014 at 09:43
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BOYD_28C-32HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2285.34	262.05	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W
Facility Reference Pt			3227276.21	1273237.51	40°04'50.053"N	104°41'15.984"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 307 (RKB) to Facility Vertical Datum	4975.00ft
Horizontal Reference Pt	Slot	H&P 307 (RKB) to Mean Sea Level	4975.00ft
Vertical Reference Pt	H&P 307 (RKB)	H&P 307 (RKB) to Mud Line at Slot (SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05))	4975.00ft
MD Reference Pt	H&P 307 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.14°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO	Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W		

WELLPATH DATA (94 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	79.770	0.00	0.00	0.00	0.00	40°04'27.469"N	104°41'12.613"W	0.00	
25.00	0.000	79.770	25.00	0.00	0.00	0.00	40°04'27.469"N	104°41'12.613"W	0.00	TIE ON
125.00	0.170	79.770	125.00	0.03	0.03	0.15	40°04'27.469"N	104°41'12.611"W	0.17	BEGIN GYRO SURVEYS
225.00	0.320	68.060	225.00	0.16	0.16	0.55	40°04'27.471"N	104°41'12.606"W	0.16	
325.00	0.160	94.320	325.00	0.25	0.25	0.95	40°04'27.471"N	104°41'12.601"W	0.19	
425.00	0.180	76.540	425.00	0.28	0.28	1.24	40°04'27.472"N	104°41'12.597"W	0.06	
525.00	0.040	70.410	525.00	0.33	0.33	1.43	40°04'27.472"N	104°41'12.595"W	0.14	
625.00	0.100	300.050	625.00	0.38	0.38	1.38	40°04'27.473"N	104°41'12.595"W	0.13	
725.00	0.170	257.530	725.00	0.40	0.39	1.16	40°04'27.473"N	104°41'12.598"W	0.12	
825.00	0.210	332.500	825.00	0.53	0.52	0.93	40°04'27.474"N	104°41'12.601"W	0.23	
925.00	0.310	329.120	925.00	0.92	0.92	0.71	40°04'27.478"N	104°41'12.604"W	0.10	
1005.00	0.220	10.440	1004.99	1.26	1.25	0.63	40°04'27.481"N	104°41'12.605"W	0.26	TIE ONTO GYRO SURVEYS
1126.00	0.370	31.240	1125.99	1.82	1.82	0.87	40°04'27.487"N	104°41'12.602"W	0.15	BEGIN BHI MWD+IFR SURVEYS
1189.00	1.340	32.610	1188.99	2.61	2.61	1.37	40°04'27.495"N	104°41'12.595"W	1.54	
1284.00	3.590	34.790	1283.89	6.00	5.99	3.67	40°04'27.528"N	104°41'12.566"W	2.37	
1378.00	5.450	33.310	1377.60	12.16	12.14	7.80	40°04'27.589"N	104°41'12.513"W	1.98	
1473.00	6.740	31.720	1472.06	20.68	20.65	13.21	40°04'27.673"N	104°41'12.443"W	1.37	
1568.00	8.200	31.750	1566.25	31.20	31.15	19.71	40°04'27.777"N	104°41'12.359"W	1.54	
1662.00	8.480	28.110	1659.25	43.04	42.97	26.50	40°04'27.894"N	104°41'12.272"W	0.64	
1753.00	7.120	24.060	1749.41	54.12	54.04	31.96	40°04'28.003"N	104°41'12.202"W	1.61	
1847.00	5.240	22.220	1842.86	63.42	63.33	35.96	40°04'28.095"N	104°41'12.150"W	2.01	
1940.00	3.900	13.410	1935.56	70.44	70.34	38.30	40°04'28.164"N	104°41'12.120"W	1.62	
2033.00	2.180	351.620	2028.43	75.26	75.17	38.78	40°04'28.212"N	104°41'12.114"W	2.20	
2125.00	0.260	350.760	2120.41	77.20	77.10	38.49	40°04'28.231"N	104°41'12.118"W	2.09	
2498.00	0.800	334.370	2493.39	80.38	80.29	37.22	40°04'28.262"N	104°41'12.134"W	0.15	
2871.00	0.240	253.410	2866.38	82.50	82.41	35.35	40°04'28.283"N	104°41'12.158"W	0.21	
3244.00	0.640	275.420	3239.36	82.47	82.38	32.53	40°04'28.283"N	104°41'12.195"W	0.11	
3337.00	0.260	157.830	3332.36	82.32	82.24	32.09	40°04'28.282"N	104°41'12.200"W	0.85	
3709.00	0.820	241.800	3704.35	80.27	80.20	30.06	40°04'28.262"N	104°41'12.226"W	0.22	
4077.00	0.870	320.270	4072.32	81.17	81.10	25.96	40°04'28.270"N	104°41'12.279"W	0.29	
4449.00	0.230	181.620	4444.31	82.59	82.53	24.13	40°04'28.285"N	104°41'12.303"W	0.28	
4827.00	0.560	110.810	4822.30	81.18	81.11	25.83	40°04'28.271"N	104°41'12.281"W	0.14	
5205.00	1.410	79.220	5200.24	81.41	81.33	32.13	40°04'28.273"N	104°41'12.200"W	0.26	
5300.00	1.200	69.910	5295.22	81.97	81.89	34.21	40°04'28.278"N	104°41'12.173"W	0.31	
5489.00	1.380	46.380	5484.17	84.23	84.14	37.72	40°04'28.300"N	104°41'12.128"W	0.29	
5583.00	1.270	45.020	5578.14	85.75	85.65	39.27	40°04'28.315"N	104°41'12.108"W	0.12	
5678.00	0.660	71.470	5673.13	86.68	86.57	40.54	40°04'28.325"N	104°41'12.092"W	0.78	
6055.00	1.150	66.820	6050.08	88.87	88.75	46.07	40°04'28.346"N	104°41'12.020"W	0.13	
6433.00	1.530	69.110	6427.98	92.18	92.04	54.28	40°04'28.379"N	104°41'11.915"W	0.10	
6621.00	0.960	67.520	6615.93	93.69	93.54	58.08	40°04'28.393"N	104°41'11.866"W	0.30	
6716.00	0.300	25.670	6710.93	94.22	94.07	58.92	40°04'28.399"N	104°41'11.855"W	0.80	
6763.00	3.760	351.590	6757.89	95.85	95.71	58.75	40°04'28.415"N	104°41'11.857"W	7.48	
6810.00	8.110	355.560	6804.63	100.69	100.54	58.27	40°04'28.463"N	104°41'11.863"W	9.29	
6857.00	12.170	356.230	6850.89	108.94	108.79	57.68	40°04'28.544"N	104°41'11.871"W	8.64	
6905.00	17.420	356.940	6897.28	121.17	121.02	56.97	40°04'28.665"N	104°41'11.880"W	10.94	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO		Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W			

WELLPATH DATA (94 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6952.00	23.330	359.960	6941.32	137.51	137.37	56.58	40°04'28.827"N	104°41'11.885"W	12.77	
6999.00	29.070	0.850	6983.47	158.25	158.11	56.75	40°04'29.031"N	104°41'11.883"W	12.24	
7046.00	34.600	1.190	7023.39	183.03	182.89	57.19	40°04'29.276"N	104°41'11.877"W	11.77	
7094.00	37.570	358.100	7062.18	211.29	211.15	56.99	40°04'29.556"N	104°41'11.880"W	7.26	
7141.00	41.420	356.180	7098.44	241.13	240.99	55.48	40°04'29.851"N	104°41'11.899"W	8.59	
7188.00	45.000	356.280	7132.69	273.23	273.10	53.36	40°04'30.168"N	104°41'11.927"W	7.62	
7235.00	48.450	357.720	7164.90	307.39	307.26	51.59	40°04'30.505"N	104°41'11.949"W	7.67	
7282.00	51.810	359.610	7195.03	343.45	343.32	50.76	40°04'30.862"N	104°41'11.960"W	7.79	
7329.00	55.160	1.990	7223.00	381.21	381.08	51.31	40°04'31.235"N	104°41'11.953"W	8.21	
7377.00	59.640	0.980	7248.85	421.62	421.49	52.34	40°04'31.634"N	104°41'11.940"W	9.50	
7424.00	64.200	0.480	7270.97	463.08	462.95	52.87	40°04'32.044"N	104°41'11.933"W	9.75	
7471.00	68.960	1.270	7289.64	506.19	506.06	53.53	40°04'32.470"N	104°41'11.924"W	10.24	
7518.00	72.180	0.510	7305.28	550.50	550.37	54.22	40°04'32.908"N	104°41'11.916"W	7.02	
7565.00	76.660	1.150	7317.90	595.76	595.62	54.88	40°04'33.355"N	104°41'11.907"W	9.62	
7612.00	81.490	359.850	7326.80	641.89	641.76	55.27	40°04'33.811"N	104°41'11.902"W	10.63	
7642.00	85.020	359.470	7330.33	671.68	671.54	55.10	40°04'34.105"N	104°41'11.904"W	11.83	
7680.00†	87.904	359.649	7332.67	709.60	709.46	54.81	40°04'34.480"N	104°41'11.908"W	7.60	7" CASING POINT
7710.00	90.180	359.790	7333.17	739.59	739.46	54.66	40°04'34.776"N	104°41'11.910"W	7.60	
7758.00	90.490	359.660	7332.89	787.59	787.46	54.43	40°04'35.251"N	104°41'11.913"W	0.70	
7852.00	90.980	359.830	7331.69	881.58	881.45	54.01	40°04'36.180"N	104°41'11.918"W	0.55	
7947.00	90.120	0.140	7330.77	976.58	976.44	53.99	40°04'37.118"N	104°41'11.919"W	0.96	
8136.00	89.630	0.420	7331.19	1165.57	1165.44	54.91	40°04'38.986"N	104°41'11.907"W	0.30	
8230.00	89.930	0.440	7331.55	1259.57	1259.44	55.61	40°04'39.915"N	104°41'11.898"W	0.32	
8419.00	90.090	0.440	7331.51	1448.57	1448.43	57.07	40°04'41.783"N	104°41'11.879"W	0.08	
8607.00	89.220	358.910	7332.65	1636.55	1636.42	56.00	40°04'43.640"N	104°41'11.893"W	0.94	
8702.00	89.350	358.720	7333.83	1731.52	1731.39	54.04	40°04'44.579"N	104°41'11.918"W	0.24	
8796.00	89.220	358.600	7335.01	1825.48	1825.36	51.84	40°04'45.508"N	104°41'11.946"W	0.19	
8890.00	89.470	359.060	7336.08	1919.45	1919.33	49.92	40°04'46.436"N	104°41'11.971"W	0.56	
8984.00	90.760	0.050	7335.89	2013.44	2013.32	49.19	40°04'47.365"N	104°41'11.980"W	1.73	
9078.00	91.380	0.120	7334.14	2107.42	2107.31	49.33	40°04'48.294"N	104°41'11.978"W	0.66	
9174.00	90.550	359.750	7332.52	2203.41	2203.29	49.22	40°04'49.242"N	104°41'11.980"W	0.95	
9268.00	90.150	0.140	7331.94	2297.41	2297.29	49.13	40°04'50.171"N	104°41'11.981"W	0.59	
9363.00	90.580	359.630	7331.34	2392.40	2392.29	48.94	40°04'51.110"N	104°41'11.983"W	0.70	
9458.00	89.590	0.200	7331.20	2487.40	2487.28	48.80	40°04'52.049"N	104°41'11.985"W	1.20	
9646.00	89.660	359.940	7332.43	2675.40	2675.28	49.03	40°04'53.907"N	104°41'11.982"W	0.14	
9836.00	89.410	359.350	7333.97	2865.38	2865.27	47.85	40°04'55.784"N	104°41'11.997"W	0.34	
9930.00	90.300	0.170	7334.21	2959.38	2959.27	47.46	40°04'56.713"N	104°41'12.002"W	1.29	
10024.00	90.150	359.880	7333.84	3053.38	3053.27	47.50	40°04'57.642"N	104°41'12.002"W	0.35	
10213.00	91.010	359.930	7331.93	3242.36	3242.25	47.18	40°04'59.510"N	104°41'12.006"W	0.46	
10402.00	90.670	359.880	7329.16	3431.34	3431.23	46.87	40°05'01.377"N	104°41'12.010"W	0.18	
10591.00	89.930	0.370	7328.17	3620.34	3620.23	47.28	40°05'03.245"N	104°41'12.005"W	0.47	
10780.00	89.810	0.860	7328.60	3809.33	3809.22	49.31	40°05'05.112"N	104°41'11.979"W	0.27	
10969.00	89.690	0.360	7329.42	3998.32	3998.20	51.32	40°05'06.980"N	104°41'11.953"W	0.27	
11064.00	90.060	0.640	7329.63	4093.32	4093.20	52.15	40°05'07.919"N	104°41'11.942"W	0.49	
11253.00	89.930	0.910	7329.64	4282.31	4282.18	54.71	40°05'09.786"N	104°41'11.909"W	0.16	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO		Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W			

WELLPATH DATA (94 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11442.00	89.500	0.350	7330.58	4471.30	4471.17	56.79	40°05'11.654"N	104°41'11.882"W	0.37	
11630.00	89.010	359.890	7333.03	4659.28	4659.15	57.18	40°05'13.512"N	104°41'11.877"W	0.36	
11663.00	88.950	359.590	7333.62	4692.27	4692.14	57.03	40°05'13.838"N	104°41'11.879"W	0.93	LAST BHI MWD+IFR SURVEYS
11721.00	88.950	359.590	7334.68	4750.26	4750.13	56.62	40°05'14.411"N	104°41'11.885"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: BOYD 28C-32HZ AWB Ref Wellpath: BOYD 28C-32HZ 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	25.00	1089.00	1064.00	25.00	1088.99	0.00	0.00	1.62	0.76	
9.625in Casing Surface	25.00	1089.00	1064.00	25.00	1088.99	0.00	0.00	1.62	0.76	
8.75in Open Hole	1089.00	7691.00	6602.00	1088.99	7332.99	1.62	0.76	720.46	54.74	
7in Casing Intermediate	25.00	7680.00	7655.00	25.00	7332.67	0.00	0.00	709.46	54.81	
6.125in Open Hole	7691.00	11721.00	4030.00	7332.99	7334.68	720.46	54.74	4750.13	56.62	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO	Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BOYD PAD HARDLINES LINES (460' SETBACKS SEC.05)		7019.00	0.00	0.00	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD HARDLINES LINES (460' SETBACKS SEC.32)		7019.00	0.00	0.00	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD SECTION LINES (SEC.05)		7019.00	0.00	0.00	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD SECTION LINES (SEC.32)		7019.00	0.00	0.00	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD 28C-32HZ BHL ON PLAT REV-1 (460' FNL & 2310' FEL, SEC. 32)		7316.00	9717.19	73.82	3227543.89	1280671.82	40°06'03.496"N	104°41'11.663"W	point
BOYD 28C-32HZ BHL REV-2 (100' FNL & 2333' FEL, SEC.05)		7316.00	4775.59	61.64	3227577.02	1275730.52	40°05'14.662"N	104°41'11.820"W	point
BOYD 28C-32HZ LANDBOX		7316.00	0.00	0.00	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BOYD 28C-32HZ AWB					Ref Wellpath: BOYD 28C-32HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
25.00	1005.00	Generic gyro - continuous (Standard)	GYRO SURVEYS <125-1005>		BOYD 28C-32HZ AWB	
1005.00	7642.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 8 3/4" <1126-7642>		BOYD 28C-32HZ AWB	
7642.00	11663.00	OnTrak (MAGCORR,IFR)	BHI ONTRAK MWD+IFR 6 1/8" <7710-11663>		BOYD 28C-32HZ AWB	
11663.00	11721.00	Blind Drilling (std)	Projection to bit		BOYD 28C-32HZ AWB	

Actual Wellpath Report

BOYD 28C-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 BOYD 28C-32HZ (347' FSL & 2356' FEL, SEC.05)
Area	COLORADO	Well	BOYD 28C-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 28C-32HZ AWB
Facility	SEC.05-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
25.00	0.000	79.770	25.00	TIE ON
125.00	0.170	79.770	125.00	BEGIN GYRO SURVEYS
1005.00	0.220	10.440	1004.99	TIE ONTO GYRO SURVEYS
1126.00	0.370	31.240	1125.99	BEGIN BHI MWD+IFR SURVEYS
7680.00	87.904	359.649	7332.67	7" CASING POINT
11663.00	88.950	359.590	7333.62	LAST BHI MWD+IFR SURVEYS
11721.00	88.950	359.590	7334.68	PROJECTION TO BIT