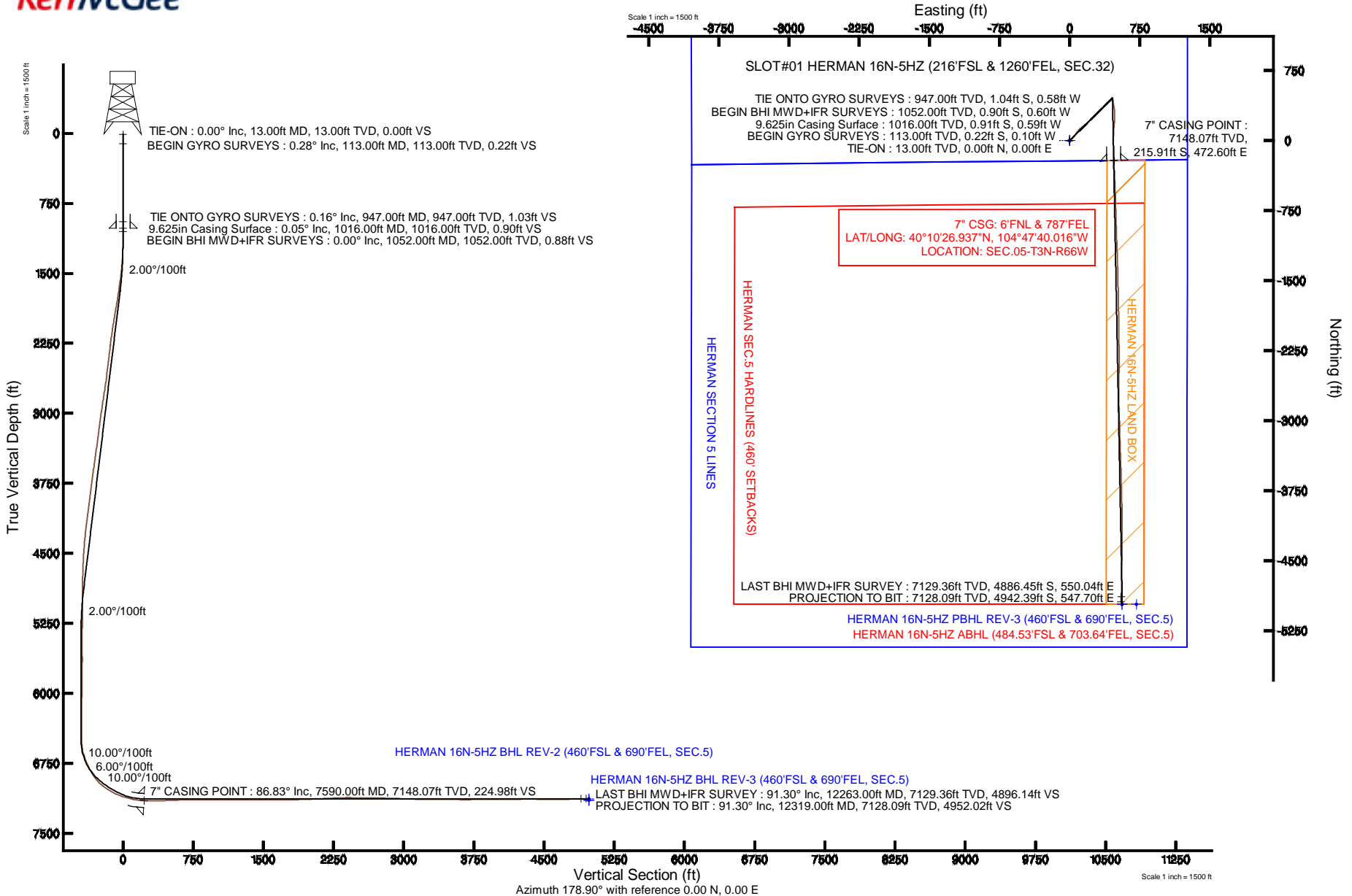


# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)  
 Field: WELD COUNTY (KERR MCGEE) Well: HERMAN 16N-5HZ  
 Facility: SEC.32-T3N-R66W Wellbore: HERMAN 16N-5HZ PWB

Plot reference wellpath is HERMAN 16N-5HZ (REV-A.0) PWP

True vertical depths are referenced to ENSIGN 138 (13' RKB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to ENSIGN 138 (13' RKB) (RKB)	North Reference: True north
ENSGN 138 (13' RKB) (RKB) to Mean Sea Level: 4884 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 18/Oct/2013



### REFERENCE WELLPATH IDENTIFICATION

Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#01 HERMAN 16N-5HZ (216'FSL &amp; 1260'FEL, SEC.32)</b>
Area	<b>COLORADO</b>	Well	<b>HERMAN 16N-5HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>HERMAN 16N-5HZ AWB</b>
Facility	<b>SEC.32-T3N-R66W</b>		

### REPORT SETUP INFORMATION

Projection System	<b>NAD83 / Lambert Colorado SP, Northern Zone (501), US feet</b>	Software System	<b>WellArchitect® 4.0.0</b>
North Reference	<b>True</b>	User	<b>Robiale01</b>
Scale	<b>0.999958</b>	Report Generated	<b>18/Oct/2013 at 10:45</b>
Convergence at slot	<b>n/a</b>	Database/Source file	<b>WA_ANADARKO/HERMAN_16N-5HZ_AWB.xml</b>

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	24.19	120.01	3196681.58	1307281.98	<b>40°10'29.071"N</b>	<b>104°47'46.104"W</b>
Facility Reference Pt			3196561.77	1307256.85	<b>40°10'28.832"N</b>	<b>104°47'47.650"W</b>
Field Reference Pt			<b>3197771.84</b>	<b>1268891.29</b>	40°04'09.600"N	104°47'36.000"W

### WELLPATH DATUM

Calculation method	<b>Minimum curvature</b>	ENSIGN 138 (13' RKB) (RKB) to Facility Vertical Datum	<b>4884.00ft</b>
Horizontal Reference Pt	<b>Slot</b>	ENSIGN 138 (13' RKB) (RKB) to Mean Sea Level	<b>4884.00ft</b>
Vertical Reference Pt	<b>ENSIGN 138 (13' RKB) (RKB)</b>	ENSIGN 138 (13' RKB) (RKB) to Mud Line at Slot (SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32))	<b>4884.00ft</b>
MD Reference Pt	<b>ENSIGN 138 (13' RKB) (RKB)</b>	Section Origin	<b>N 0.00, E 0.00 ft</b>
Field Vertical Reference	<b>Mean Sea Level</b>	Section Azimuth	<b>173.68°</b>

### REFERENCE WELLPATH IDENTIFICATION

Operator	<b>KERR-MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#01 HERMAN 16N-5HZ (216'FSL &amp; 1260'FEL, SEC.32)</b>
Area	<b>COLORADO</b>	Well	<b>HERMAN 16N-5HZ</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>HERMAN 16N-5HZ AWB</b>
Facility	<b>SEC.32-T3N-R66W</b>		

### WELLPATH DATA (110 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	205.340	0.00	0.00	0.00	0.00	40°10'29.071"N	104°47'46.104"W	0.00	
13.00	0.000	205.340	13.00	0.00	0.00	0.00	40°10'29.071"N	104°47'46.104"W	0.00	TIE-ON
113.00	0.280	205.340	113.00	0.21	-0.22	-0.10	40°10'29.069"N	104°47'46.105"W	0.28	BEGIN GYRO SURVEYS
213.00	0.010	243.300	213.00	0.42	-0.45	-0.22	40°10'29.067"N	104°47'46.107"W	0.27	
313.00	0.150	177.280	313.00	0.55	-0.58	-0.22	40°10'29.065"N	104°47'46.107"W	0.15	
413.00	0.170	294.850	413.00	0.61	-0.65	-0.35	40°10'29.065"N	104°47'46.108"W	0.27	
513.00	0.120	137.550	513.00	0.61	-0.66	-0.41	40°10'29.064"N	104°47'46.109"W	0.28	
613.00	0.080	244.060	613.00	0.72	-0.77	-0.40	40°10'29.063"N	104°47'46.109"W	0.16	
713.00	0.220	168.840	713.00	0.94	-0.99	-0.43	40°10'29.061"N	104°47'46.110"W	0.21	
813.00	0.100	49.130	813.00	1.08	-1.12	-0.33	40°10'29.060"N	104°47'46.108"W	0.28	
913.00	0.270	265.610	913.00	1.02	-1.08	-0.49	40°10'29.060"N	104°47'46.110"W	0.36	
947.00	0.160	353.430	947.00	0.97	-1.04	-0.58	40°10'29.061"N	104°47'46.111"W	0.91	TIE ONTO GYRO SURVEYS
1052.00	0.000	8.500	1052.00	0.82	-0.90	-0.60	40°10'29.062"N	104°47'46.112"W	0.15	BEGIN BHI MWD+IFR SURVEYS
1144.00	0.100	44.300	1144.00	0.77	-0.84	-0.54	40°10'29.063"N	104°47'46.111"W	0.11	
1235.00	2.100	47.600	1234.98	-0.26	0.34	0.75	40°10'29.074"N	104°47'46.094"W	2.20	
1327.00	5.100	44.600	1326.78	-3.83	4.39	4.86	40°10'29.114"N	104°47'46.041"W	3.27	
1418.00	7.800	50.500	1417.20	-9.76	11.20	12.47	40°10'29.182"N	104°47'45.943"W	3.05	
1510.00	9.900	49.700	1508.10	-17.60	20.29	23.32	40°10'29.271"N	104°47'45.804"W	2.29	
1601.00	11.500	42.900	1597.52	-27.89	31.99	35.46	40°10'29.387"N	104°47'45.647"W	2.24	
1693.00	10.700	37.500	1687.80	-40.05	45.49	46.90	40°10'29.521"N	104°47'45.500"W	1.42	
1830.00	11.900	37.400	1822.14	-59.43	66.80	63.23	40°10'29.731"N	104°47'45.289"W	0.88	
1922.00	11.900	34.000	1912.17	-73.52	82.20	74.29	40°10'29.883"N	104°47'45.147"W	0.76	
2014.00	12.100	40.200	2002.16	-87.38	97.43	85.82	40°10'30.034"N	104°47'44.998"W	1.42	
2105.00	11.900	40.600	2091.17	-100.35	111.84	98.08	40°10'30.176"N	104°47'44.840"W	0.24	
2197.00	11.800	50.200	2181.22	-112.02	125.06	111.48	40°10'30.307"N	104°47'44.668"W	2.14	
2288.00	11.700	51.300	2270.31	-122.10	136.79	125.83	40°10'30.423"N	104°47'44.483"W	0.27	
2380.00	11.100	51.200	2360.50	-131.85	148.17	140.02	40°10'30.535"N	104°47'44.300"W	0.65	
2471.00	10.600	51.100	2449.87	-141.06	158.91	153.36	40°10'30.641"N	104°47'44.128"W	0.55	
2563.00	10.400	48.900	2540.33	-150.35	169.69	166.20	40°10'30.748"N	104°47'43.963"W	0.49	
2655.00	11.200	49.300	2630.70	-160.13	180.97	179.23	40°10'30.859"N	104°47'43.795"W	0.87	
2746.00	12.400	45.200	2719.78	-171.20	193.62	192.86	40°10'30.984"N	104°47'43.619"W	1.61	
2837.00	12.300	44.300	2808.67	-183.43	207.44	206.57	40°10'31.121"N	104°47'43.443"W	0.24	
2929.00	12.200	44.000	2898.57	-195.85	221.45	220.16	40°10'31.259"N	104°47'43.268"W	0.13	
3021.00	11.900	45.600	2988.55	-207.91	235.08	233.69	40°10'31.394"N	104°47'43.093"W	0.49	
3205.00	10.700	45.400	3168.98	-230.19	260.34	259.41	40°10'31.644"N	104°47'42.762"W	0.65	
3299.00	10.400	44.200	3261.39	-240.99	272.55	271.54	40°10'31.764"N	104°47'42.606"W	0.40	
3393.00	11.200	45.000	3353.72	-252.09	285.09	283.91	40°10'31.888"N	104°47'42.446"W	0.87	
3489.00	10.900	46.200	3447.94	-263.44	297.97	297.05	40°10'32.016"N	104°47'42.277"W	0.39	
3584.00	11.600	43.400	3541.12	-275.08	311.12	310.10	40°10'32.146"N	104°47'42.109"W	0.93	
3679.00	11.900	43.200	3634.13	-287.61	325.20	323.37	40°10'32.285"N	104°47'41.938"W	0.32	
3774.00	10.500	50.900	3727.32	-298.65	337.80	336.79	40°10'32.409"N	104°47'41.765"W	2.15	
3868.00	10.700	44.000	3819.72	-308.86	349.48	349.50	40°10'32.525"N	104°47'41.601"W	1.37	
3963.00	9.400	43.800	3913.26	-319.47	361.43	361.00	40°10'32.643"N	104°47'41.453"W	1.37	
4057.00	9.900	44.800	4005.93	-329.46	372.70	372.00	40°10'32.754"N	104°47'41.312"W	0.56	
4152.00	11.400	46.400	4099.29	-340.27	384.97	384.56	40°10'32.875"N	104°47'41.150"W	1.61	



# Actual Wellpath Report

HERMAN 16N-5HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)
Area	COLORADO	Well	HERMAN 16N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 16N-5HZ AWB
Facility	SEC.32-T3N-R66W		

## WELLPATH DATA (110 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4248.00	11.300	45.500	4193.41	-351.83	398.11	398.14	40°10'33.005"N	104°47'40.975"W	0.21	
4342.00	8.900	50.200	4285.95	-361.54	409.22	410.29	40°10'33.115"N	104°47'40.818"W	2.70	
4437.00	7.300	48.400	4380.00	-369.08	417.93	420.45	40°10'33.201"N	104°47'40.687"W	1.71	
4532.00	5.900	48.400	4474.37	-375.38	425.18	428.62	40°10'33.273"N	104°47'40.582"W	1.47	
4626.00	4.600	49.300	4567.97	-380.30	430.85	435.09	40°10'33.329"N	104°47'40.499"W	1.39	
4721.00	4.000	50.100	4662.71	-384.29	435.46	440.52	40°10'33.374"N	104°47'40.429"W	0.63	
4816.00	2.100	57.800	4757.57	-386.88	438.51	444.53	40°10'33.404"N	104°47'40.377"W	2.04	
4911.00	0.700	54.000	4852.54	-387.93	439.78	446.48	40°10'33.417"N	104°47'40.352"W	1.48	
5383.00	1.100	64.700	5324.48	-390.83	443.41	452.91	40°10'33.453"N	104°47'40.269"W	0.09	
5572.00	0.400	158.600	5513.46	-390.78	443.57	454.79	40°10'33.454"N	104°47'40.245"W	0.63	
6049.00	1.200	357.400	5990.44	-394.16	447.01	455.17	40°10'33.488"N	104°47'40.240"W	0.33	
6524.00	0.200	110.200	6465.40	-398.75	451.69	455.72	40°10'33.535"N	104°47'40.233"W	0.27	
6619.00	5.700	164.100	6560.24	-394.02	447.09	457.17	40°10'33.489"N	104°47'40.214"W	5.88	
6714.00	17.800	170.300	6653.08	-374.80	428.17	460.92	40°10'33.302"N	104°47'40.166"W	12.79	
6809.00	23.000	170.900	6742.09	-341.74	395.51	466.31	40°10'32.979"N	104°47'40.097"W	5.48	
6903.00	27.600	169.800	6827.06	-301.65	355.93	473.07	40°10'32.588"N	104°47'40.010"W	4.92	
6997.00	37.600	175.300	6906.16	-251.12	305.78	479.29	40°10'32.093"N	104°47'39.929"W	11.09	
7092.00	49.100	182.300	6975.17	-186.40	240.76	480.23	40°10'31.450"N	104°47'39.917"W	13.10	
7187.00	57.100	185.500	7032.17	-111.74	165.05	474.96	40°10'30.702"N	104°47'39.985"W	8.84	
7282.00	66.200	183.500	7077.24	-29.70	81.79	468.47	40°10'29.879"N	104°47'40.069"W	9.76	
7378.00	72.600	179.600	7111.01	59.26	-7.97	466.11	40°10'28.992"N	104°47'40.099"W	7.67	
7472.00	78.300	177.600	7134.62	149.87	-98.88	468.35	40°10'28.094"N	104°47'40.071"W	6.40	
7543.00	85.200	178.100	7144.80	219.90	-169.06	470.98	40°10'27.400"N	104°47'40.037"W	9.74	
7590.00†	86.827	177.949	7148.07	266.65	-215.91	472.60	40°10'26.937"N	104°47'40.016"W	3.48	7" CASING POINT
7699.00	90.600	177.600	7150.51	375.33	-324.78	476.83	40°10'25.861"N	104°47'39.961"W	3.48	
7795.00	92.000	176.900	7148.34	471.11	-420.65	481.43	40°10'24.914"N	104°47'39.902"W	1.63	
7889.00	92.200	178.200	7144.89	564.83	-514.49	485.45	40°10'23.987"N	104°47'39.850"W	1.40	
7983.00	91.500	178.700	7141.86	658.46	-608.41	487.99	40°10'23.059"N	104°47'39.818"W	0.91	
8078.00	90.000	178.200	7140.61	753.12	-703.36	490.56	40°10'22.120"N	104°47'39.785"W	1.66	
8174.00	89.700	178.100	7140.86	848.82	-799.31	493.66	40°10'21.172"N	104°47'39.745"W	0.33	
8269.00	90.500	178.800	7140.70	943.49	-894.28	496.23	40°10'20.234"N	104°47'39.712"W	1.12	
8458.00	89.800	177.400	7140.20	1131.92	-1083.17	502.49	40°10'18.367"N	104°47'39.631"W	0.83	
8648.00	89.900	178.400	7140.70	1321.40	-1273.04	509.45	40°10'16.491"N	104°47'39.541"W	0.53	
8837.00	89.900	178.800	7141.03	1509.71	-1461.98	514.07	40°10'14.624"N	104°47'39.482"W	0.21	
9027.00	90.200	178.600	7140.86	1698.98	-1651.93	518.38	40°10'12.747"N	104°47'39.426"W	0.19	
9216.00	91.500	179.300	7138.06	1887.15	-1840.87	521.85	40°10'10.879"N	104°47'39.382"W	0.78	
9406.00	92.500	179.100	7131.43	2076.15	-2030.74	524.50	40°10'09.003"N	104°47'39.348"W	0.54	
9500.00	92.300	179.300	7127.49	2169.63	-2124.64	525.81	40°10'08.075"N	104°47'39.331"W	0.30	
9596.00	93.200	179.500	7122.89	2265.04	-2220.53	526.81	40°10'07.128"N	104°47'39.318"W	0.96	
9690.00	92.200	179.900	7118.46	2358.42	-2314.42	527.30	40°10'06.200"N	104°47'39.312"W	1.15	
9784.00	89.500	180.500	7117.07	2451.79	-2408.40	526.98	40°10'05.271"N	104°47'39.316"W	2.94	
9878.00	89.400	180.000	7117.97	2545.17	-2502.39	526.57	40°10'04.342"N	104°47'39.321"W	0.54	
9973.00	89.800	180.800	7118.63	2639.51	-2597.39	525.90	40°10'03.403"N	104°47'39.330"W	0.94	
10068.00	88.700	180.500	7119.87	2733.80	-2692.37	524.82	40°10'02.465"N	104°47'39.344"W	1.20	
10162.00	88.500	178.800	7122.17	2827.26	-2786.34	525.40	40°10'01.536"N	104°47'39.336"W	1.82	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)
Area	COLORADO	Well	HERMAN 16N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 16N-5HZ AWB
Facility	SEC.32-T3N-R66W		

### WELLPATH DATA (110 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10256.00	88.100	178.400	7124.96	2920.87	-2880.27	527.69	40°10'00.608"N	104°47'39.307"W	0.60	
10352.00	88.200	178.100	7128.06	3016.51	-2976.18	530.62	40°09'59.660"N	104°47'39.269"W	0.33	
10448.00	88.200	178.700	7131.07	3112.14	-3072.09	533.30	40°09'58.712"N	104°47'39.235"W	0.62	
10543.00	88.770	178.600	7133.59	3206.75	-3167.03	535.54	40°09'57.774"N	104°47'39.206"W	0.61	
10638.00	89.200	177.800	7135.27	3301.44	-3261.97	538.52	40°09'56.836"N	104°47'39.167"W	0.96	
10734.00	90.000	177.900	7135.94	3397.18	-3357.90	542.13	40°09'55.888"N	104°47'39.121"W	0.84	
10830.00	89.700	178.700	7136.19	3492.86	-3453.85	544.97	40°09'54.940"N	104°47'39.084"W	0.89	
10924.00	89.400	178.300	7136.93	3586.53	-3547.82	547.43	40°09'54.011"N	104°47'39.053"W	0.53	
11019.00	90.000	178.400	7137.43	3681.21	-3642.78	550.17	40°09'53.073"N	104°47'39.017"W	0.64	
11114.00	90.500	178.200	7137.01	3775.90	-3737.73	552.99	40°09'52.135"N	104°47'38.981"W	0.57	
11209.00	90.300	178.900	7136.35	3870.55	-3832.70	555.39	40°09'51.196"N	104°47'38.950"W	0.77	
11398.00	90.600	179.000	7134.86	4058.75	-4021.66	558.86	40°09'49.329"N	104°47'38.906"W	0.17	
11588.00	90.700	180.200	7132.71	4247.72	-4211.64	560.18	40°09'47.451"N	104°47'38.889"W	0.63	
11682.00	90.300	180.000	7131.89	4341.12	-4305.64	560.02	40°09'46.522"N	104°47'38.891"W	0.48	
11777.00	89.400	181.600	7132.14	4435.39	-4400.62	558.69	40°09'45.584"N	104°47'38.908"W	1.93	
11871.00	89.100	181.000	7133.37	4528.55	-4494.59	556.56	40°09'44.655"N	104°47'38.935"W	0.71	
12062.00	90.600	180.000	7133.87	4718.18	-4685.58	554.89	40°09'42.768"N	104°47'38.957"W	0.94	
12157.00	91.600	181.500	7132.04	4812.44	-4780.55	553.65	40°09'41.829"N	104°47'38.973"W	1.90	
12263.00	91.300	182.400	7129.36	4917.30	-4886.45	550.04	40°09'40.783"N	104°47'39.019"W	0.89	LAST BHI MWD+IFR SURVEY
12319.00	91.300	182.400	7128.09	4972.64	-4942.39	547.70	40°09'40.230"N	104°47'39.050"W	0.00	PROJECTION TO BIT

### HOLE & CASING SECTIONS - Ref Wellbore: HERMAN 16N-5HZ AWB Ref Wellpath: HERMAN 16N-5HZ 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	13.00	1016.00	1003.00	13.00	1016.00	0.00	0.00	-0.91	-0.59
9.625in Casing Surface	13.00	1016.00	1003.00	13.00	1016.00	0.00	0.00	-0.91	-0.59
8.75in Open Hole	1016.00	7600.00	6584.00	1016.00	7148.59	-0.91	-0.59	-225.89	472.96
7in Casing Intermediate	13.00	7590.00	7577.00	13.00	7148.07	0.00	0.00	-215.91	472.60
6.125in Open Hole	7600.00	12319.00	4719.00	7148.59	7128.09	-225.89	472.96	-4942.39	547.70



# Actual Wellpath Report

HERMAN 16N-5HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)
Area	COLORADO	Well	HERMAN 16N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 16N-5HZ AWB
Facility	SEC.32-T3N-R66W		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BLUFFS RED W 5-3 (150' RADIUS)		0.00	-868.79	-1918.66	3194769.96	1306398.03	40°10'20.485"N	104°48'10.820"W	circle
BLUFFS RED W 5-6 (150' RADIUS)		0.00	-2148.92	-1928.26	3194770.52	1305117.92	40°10'07.835"N	104°48'10.943"W	circle
HERMAN 32-15K (150' RADIUS)		0.00	431.69	-914.75	3195763.47	1307706.37	40°10'33.337"N	104°47'57.889"W	circle
HERMAN 32-16K (150' RADIUS)		0.00	457.53	670.60	3197348.49	1307744.80	40°10'33.592"N	104°47'37.465"W	circle
HERMAN L 32-14 (150' RADIUS)		0.00	381.85	-2027.54	3194651.16	1307647.71	40°10'32.844"N	104°48'12.224"W	circle
KUNZMAN W 05-09 (150' RADIUS)		0.00	-3278.29	764.97	3197472.52	1304010.01	40°09'56.675"N	104°47'36.251"W	circle
UPRC 5-10K6 (150' RADIUS)		0.00	-3598.52	-943.70	3195766.51	1303676.24	40°09'53.510"N	104°47'58.260"W	circle
UPRC 5-15K6 (150' RADIUS)		0.00	-4914.72	-959.69	3195760.97	1302360.02	40°09'40.503"N	104°47'58.465"W	circle
UPRC 5-160 (150' RADIUS)		0.00	-4957.37	392.32	3197113.22	1302328.10	40°09'40.082"N	104°47'41.051"W	circle
UPRC 5-90 (150' RADIUS)		0.00	-3821.13	263.74	3196975.63	1303463.23	40°09'51.310"N	104°47'42.707"W	circle
UPRC W 5-10 JI (150' RADIUS)		0.00	-3287.05	-890.31	3195817.43	1303988.11	40°09'56.588"N	104°47'57.572"W	circle
HERMAN 16N-5HZ LAND BOX	7000.00	0.00	0.00	0.00	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon
HERMAN 16N-5HZ BHL REV-3 (460'FSL & 690'FEL, SEC.5)	7129.00	-4967.17	561.34	3197282.30	1302319.64	40°09'39.985"N	104°47'38.874"W	point	
HERMAN 16N-5HZ BHL ON PLAT (460'FSL & 540'FEL, SEC.5) REV-1	7144.00	-4967.19	711.34	3197432.29	1302320.82	40°09'39.985"N	104°47'36.942"W	point	
HERMAN 16N-5HZ BHL REV-2 (460'FSL & 690'FEL, SEC.5)	7144.00	-4967.17	561.34	3197282.30	1302319.64	40°09'39.985"N	104°47'38.874"W	point	
HERMAN SEC.5 HARDLINES (460' SETBACKS)	7500.00	0.00	0.00	0.00	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon
HERMAN SECTION 32 LINES	7500.00	0.00	0.00	0.00	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon
HERMAN SECTION 5 LINES	7500.00	0.00	0.00	0.00	3196681.58	1307281.98	40°10'29.071"N	104°47'46.104"W	polygon



# Actual Wellpath Report

HERMAN 16N-5HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)
Area	COLORADO	Well	HERMAN 16N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 16N-5HZ AWB
Facility	SEC.32-T3N-R66W		

## WELLPATH COMPOSITION - Ref Wellbore: HERMAN 16N-5HZ AWB Ref Wellpath: HERMAN 16N-5HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	947.00	Generic gyro - continuous (Standard)	MS GYRODATA SURVEYS <113-947>	HERMAN 16N-5HZ AWB
947.00	7543.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 8 3/4" <1052-7543>	HERMAN 16N-5HZ AWB
7543.00	12263.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" <7699-12263>	HERMAN 16N-5HZ AWB
12263.00	12319.00	Blind Drilling (std)	Projection to bit	HERMAN 16N-5HZ AWB



# Actual Wellpath Report

HERMAN 16N-5HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 HERMAN 16N-5HZ (216'FSL & 1260'FEL, SEC.32)
Area	COLORADO	Well	HERMAN 16N-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HERMAN 16N-5HZ AWB
Facility	SEC.32-T3N-R66W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	205.340	13.00	TIE-ON
113.00	0.280	205.340	113.00	BEGIN GYRO SURVEYS
947.00	0.160	353.430	947.00	TIE ONTO GYRO SURVEYS
1052.00	0.000	8.500	1052.00	BEGIN BHI MWD+IFR SURVEYS
7590.00	86.827	177.949	7148.07	7" CASING POINT
12263.00	91.300	182.400	7129.36	LAST BHI MWD+IFR SURVEY
12319.00	91.300	182.400	7128.09	PROJECTION TO BIT