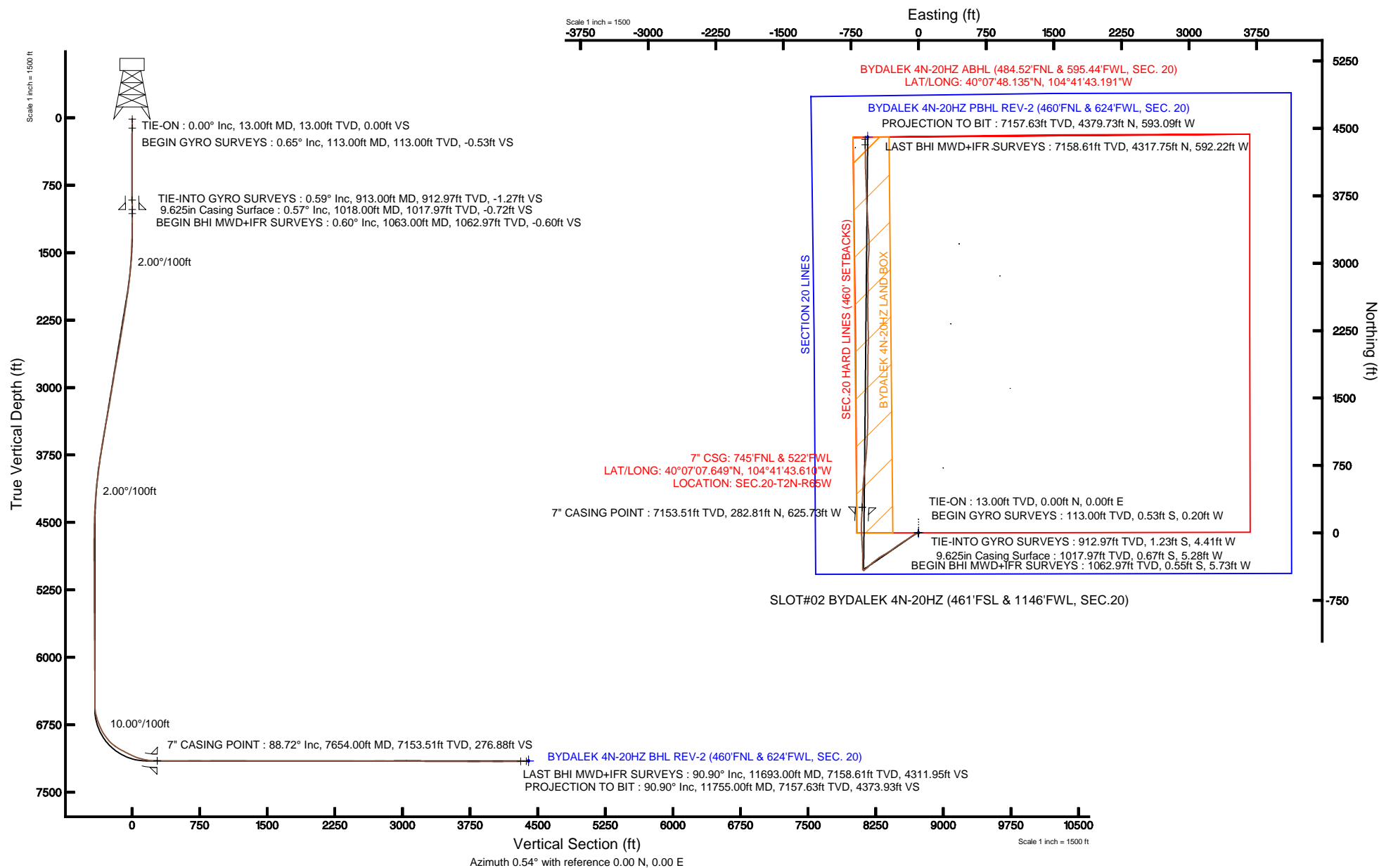


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Field: WELD COUNTY (KERR MCGEE) Well: BYDALEK 4N-20HZ
Facility: SEC.20-T2N-R65W Wellbore: BYDALEK 4N-20HZ PWB

Plot reference wellpath is BYDALEK 4N-20HZ (REV-B.0) PWP

True vertical depths are referenced to ENSIGN 138 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to ENSIGN 138 (RKB)	North Reference: True north
ENSIGN 138 (RKB) to Mean Sea Level: 4944 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilsje02 on 4/10/2013





Actual Wellpath Report

BYDALEK 4N-20HZ AWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsjef02
Scale	0.99996	Report Generated	4/10/2013 at 10:26:04
Convergence at slot	0.52° East	Database/Source file	WellArchitectDB/BYDALEK_4N-20HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-30.16	0.08	3225630.87	1286863.32	40°07'04.854"N	104°41'35.556"W
Facility Reference Pt			3225630.51	1286893.48	40°07'05.152"N	104°41'35.557"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	ENSIGN 138 (RKB) to Facility Vertical Datum	4944.00ft
Horizontal Reference Pt	Slot	ENSIGN 138 (RKB) to Mean Sea Level	4944.00ft
Vertical Reference Pt	ENSIGN 138 (RKB)	ENSIGN 138 (RKB) to Mud Line at Slot (SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20))	4944.00ft
MD Reference Pt	ENSIGN 138 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.54°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

WELLPATH DATA (116 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	201.070	0.00	0.00	0.00	0.00	40°07'04.854"N	104°41'35.556"W	0.00	
13.00	0.000	201.070	13.00	0.00	0.00	0.00	40°07'04.854"N	104°41'35.556"W	0.00	TIE-ON
113.00	0.650	201.070	113.00	-0.53	-0.53	-0.20	40°07'04.849"N	104°41'35.559"W	0.65	BEGIN GYRO SURVEYS
213.00	0.470	201.790	212.99	-1.44	-1.44	-0.56	40°07'04.840"N	104°41'35.563"W	0.18	
313.00	0.510	234.170	312.99	-2.09	-2.08	-1.07	40°07'04.833"N	104°41'35.570"W	0.28	
413.00	0.390	236.440	412.99	-2.55	-2.53	-1.72	40°07'04.829"N	104°41'35.578"W	0.12	
513.00	0.500	253.460	512.98	-2.86	-2.84	-2.42	40°07'04.826"N	104°41'35.587"W	0.17	
613.00	0.320	315.240	612.98	-2.80	-2.77	-3.03	40°07'04.827"N	104°41'35.595"W	0.45	
713.00	0.370	323.100	712.98	-2.34	-2.31	-3.42	40°07'04.831"N	104°41'35.600"W	0.07	
813.00	0.360	316.310	812.98	-1.86	-1.83	-3.84	40°07'04.836"N	104°41'35.605"W	0.04	
913.00	0.590	315.570	912.97	-1.27	-1.23	-4.41	40°07'04.842"N	104°41'35.613"W	0.23	TIE-INTO GYRO SURVEYS
1063.00	0.600	279.500	1062.97	-0.60	-0.55	-5.73	40°07'04.849"N	104°41'35.630"W	0.25	BEGIN BHI MWD+IFR SURVEYS
1155.00	2.100	256.000	1154.94	-0.95	-0.88	-7.84	40°07'04.845"N	104°41'35.657"W	1.70	
1246.00	2.100	260.700	1245.88	-1.66	-1.55	-11.10	40°07'04.839"N	104°41'35.699"W	0.19	
1337.00	3.800	245.100	1336.76	-3.24	-3.09	-15.48	40°07'04.823"N	104°41'35.755"W	2.05	
1428.00	5.000	243.200	1427.49	-6.35	-6.15	-21.76	40°07'04.793"N	104°41'35.836"W	1.33	
1519.00	6.000	243.300	1518.07	-10.35	-10.07	-29.55	40°07'04.754"N	104°41'35.936"W	1.10	
1610.00	7.900	240.600	1608.39	-15.65	-15.28	-39.25	40°07'04.703"N	104°41'36.061"W	2.12	
1701.00	9.400	241.000	1698.36	-22.44	-21.95	-51.19	40°07'04.637"N	104°41'36.215"W	1.65	
1793.00	10.700	234.300	1788.94	-31.19	-30.58	-64.70	40°07'04.552"N	104°41'36.389"W	1.90	
1884.00	12.000	236.200	1878.16	-41.52	-40.77	-79.42	40°07'04.451"N	104°41'36.578"W	1.49	
1978.00	13.700	233.900	1969.81	-53.68	-52.77	-96.54	40°07'04.333"N	104°41'36.799"W	1.89	
2073.00	15.300	236.300	2061.78	-67.45	-66.35	-116.06	40°07'04.198"N	104°41'37.050"W	1.80	
2169.00	15.900	237.200	2154.24	-81.80	-80.50	-137.65	40°07'04.058"N	104°41'37.328"W	0.67	
2263.00	16.100	237.700	2244.60	-95.95	-94.44	-159.49	40°07'03.921"N	104°41'37.609"W	0.26	
2357.00	16.700	237.200	2334.78	-110.44	-108.72	-181.86	40°07'03.780"N	104°41'37.897"W	0.66	
2452.00	16.000	235.800	2425.93	-125.40	-123.48	-204.16	40°07'03.634"N	104°41'38.184"W	0.85	
2547.00	16.700	236.300	2517.09	-140.55	-138.41	-226.35	40°07'03.486"N	104°41'38.469"W	0.75	
2641.00	16.400	234.500	2607.20	-155.95	-153.61	-248.39	40°07'03.336"N	104°41'38.753"W	0.63	
2735.00	16.600	233.000	2697.33	-171.94	-169.40	-269.91	40°07'03.180"N	104°41'39.030"W	0.50	
2830.00	16.000	232.300	2788.51	-188.32	-185.57	-291.11	40°07'03.020"N	104°41'39.303"W	0.66	
2925.00	15.600	236.600	2879.92	-203.55	-200.61	-312.14	40°07'02.872"N	104°41'39.574"W	1.30	
3021.00	16.900	237.600	2972.08	-218.35	-215.19	-334.69	40°07'02.727"N	104°41'39.864"W	1.39	
3116.00	17.800	239.700	3062.76	-233.30	-229.92	-358.89	40°07'02.582"N	104°41'40.176"W	1.15	
3211.00	18.000	239.900	3153.16	-248.23	-244.61	-384.13	40°07'02.437"N	104°41'40.500"W	0.22	
3307.00	17.900	237.500	3244.49	-263.83	-259.97	-409.40	40°07'02.285"N	104°41'40.826"W	0.78	
3401.00	18.000	237.000	3333.92	-279.73	-275.64	-433.77	40°07'02.130"N	104°41'41.139"W	0.20	
3495.00	17.500	233.000	3423.44	-296.37	-292.06	-457.24	40°07'01.968"N	104°41'41.441"W	1.40	
3590.00	15.900	231.900	3514.44	-313.20	-308.69	-478.88	40°07'01.803"N	104°41'41.720"W	1.72	
3684.00	14.600	231.200	3605.12	-328.75	-324.06	-498.25	40°07'01.652"N	104°41'41.969"W	1.40	
3779.00	12.900	229.600	3697.40	-343.30	-338.43	-515.66	40°07'01.510"N	104°41'42.193"W	1.83	
3872.00	11.600	228.100	3788.28	-356.41	-351.41	-530.52	40°07'01.381"N	104°41'42.385"W	1.44	
3966.00	10.700	228.500	3880.50	-368.63	-363.50	-544.10	40°07'01.262"N	104°41'42.559"W	0.96	
4060.00	10.000	227.000	3972.97	-380.10	-374.85	-556.60	40°07'01.150"N	104°41'42.720"W	0.80	
4157.00	9.000	225.300	4068.64	-391.29	-385.93	-568.15	40°07'01.040"N	104°41'42.869"W	1.07	



Actual Wellpath Report

BYDALEK 4N-20HZ AWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

WELLPATH DATA (116 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4253.00	7.900	232.100	4163.60	-400.72	-395.26	-578.70	40°07'00.948"N	104°41'43.005"W	1.55	
4349.00	7.500	232.600	4258.74	-408.67	-403.12	-588.88	40°07'00.870"N	104°41'43.136"W	0.42	
4446.00	5.200	235.900	4355.13	-415.07	-409.43	-597.55	40°07'00.808"N	104°41'43.247"W	2.40	
4540.00	3.100	231.300	4448.88	-419.10	-413.41	-603.06	40°07'00.769"N	104°41'43.318"W	2.26	
4635.00	1.400	220.000	4543.81	-421.62	-415.91	-605.81	40°07'00.744"N	104°41'43.354"W	1.84	
4825.00	0.500	91.500	4733.79	-423.42	-417.70	-606.48	40°07'00.726"N	104°41'43.362"W	0.92	
5205.00	0.400	42.400	5113.78	-422.46	-416.77	-603.92	40°07'00.735"N	104°41'43.329"W	0.10	
5586.00	1.000	283.400	5494.76	-420.73	-415.02	-606.26	40°07'00.753"N	104°41'43.360"W	0.33	
5680.00	1.200	288.400	5588.74	-420.25	-414.52	-607.99	40°07'00.758"N	104°41'43.382"W	0.24	
5871.00	0.900	319.300	5779.71	-418.51	-412.75	-610.87	40°07'00.775"N	104°41'43.419"W	0.33	
6061.00	0.700	303.100	5969.69	-416.76	-410.98	-612.81	40°07'00.793"N	104°41'43.444"W	0.16	
6441.00	0.800	285.600	6349.66	-414.82	-409.00	-617.31	40°07'00.812"N	104°41'43.502"W	0.07	
6564.00	0.900	275.000	6472.65	-414.52	-408.69	-619.10	40°07'00.815"N	104°41'43.525"W	0.15	
6566.00	0.900	269.400	6474.65	-414.52	-408.68	-619.13	40°07'00.815"N	104°41'43.525"W	4.40	
6597.00	0.900	267.600	6505.64	-414.54	-408.70	-619.62	40°07'00.815"N	104°41'43.532"W	0.09	
6629.00	1.500	310.700	6537.64	-414.28	-408.43	-620.19	40°07'00.818"N	104°41'43.539"W	3.26	
6676.00	5.800	356.100	6584.54	-411.52	-405.66	-620.82	40°07'00.845"N	104°41'43.547"W	10.35	
6723.00	11.100	0.500	6631.01	-404.62	-398.76	-620.94	40°07'00.913"N	104°41'43.549"W	11.35	
6771.00	16.400	0.900	6677.62	-393.22	-387.36	-620.79	40°07'01.026"N	104°41'43.547"W	11.04	
6819.00	20.200	0.700	6723.18	-378.15	-372.29	-620.59	40°07'01.175"N	104°41'43.544"W	7.92	
6865.00	23.500	0.900	6765.87	-361.03	-355.18	-620.34	40°07'01.344"N	104°41'43.541"W	7.18	
6915.00	27.400	0.200	6811.01	-339.55	-333.70	-620.15	40°07'01.556"N	104°41'43.538"W	7.82	
6961.00	31.700	0.500	6851.02	-316.87	-311.02	-620.00	40°07'01.780"N	104°41'43.536"W	9.35	
7009.00	35.500	0.200	6890.99	-290.31	-284.46	-619.85	40°07'02.043"N	104°41'43.534"W	7.92	
7056.00	42.100	359.000	6927.60	-260.88	-255.03	-620.07	40°07'02.334"N	104°41'43.537"W	14.13	
7105.00	48.200	356.700	6962.14	-226.20	-220.33	-621.41	40°07'02.677"N	104°41'43.555"W	12.88	
7151.00	54.900	356.400	6990.73	-190.29	-184.40	-623.58	40°07'03.032"N	104°41'43.583"W	14.57	
7199.00	59.000	357.000	7016.90	-150.15	-144.24	-625.89	40°07'03.429"N	104°41'43.612"W	8.61	
7245.00	61.800	356.600	7039.62	-110.24	-104.31	-628.13	40°07'03.823"N	104°41'43.641"W	6.13	
7293.00	62.600	357.200	7062.01	-67.87	-61.91	-630.42	40°07'04.242"N	104°41'43.671"W	2.00	
7340.00	64.600	356.900	7082.91	-25.85	-19.87	-632.59	40°07'04.658"N	104°41'43.699"W	4.29	
7388.00	66.900	358.800	7102.62	17.86	23.86	-634.23	40°07'05.090"N	104°41'43.720"W	6.00	
7435.00	70.900	0.200	7119.54	61.69	67.70	-634.60	40°07'05.523"N	104°41'43.725"W	8.95	
7483.00	75.600	1.400	7133.37	107.64	113.64	-633.95	40°07'05.977"N	104°41'43.716"W	10.08	
7530.00	80.300	2.900	7143.18	153.57	159.56	-632.23	40°07'06.431"N	104°41'43.694"W	10.48	
7578.00	84.000	3.700	7149.73	201.06	207.02	-629.49	40°07'06.900"N	104°41'43.659"W	7.88	
7612.00	87.700	2.800	7152.19	234.92	240.87	-627.57	40°07'07.234"N	104°41'43.634"W	11.20	
7654.00†	88.717	2.225	7153.51	276.88	282.81	-625.73	40°07'07.649"N	104°41'43.610"W	2.78	7" CASING POINT
7707.00	90.000	1.500	7154.10	329.86	335.78	-624.00	40°07'08.172"N	104°41'43.588"W	2.78	
7897.00	90.100	3.700	7153.93	519.72	525.57	-615.39	40°07'10.048"N	104°41'43.477"W	1.16	
8087.00	90.000	7.500	7153.77	708.95	714.63	-596.85	40°07'11.916"N	104°41'43.239"W	2.00	
8182.00	89.900	5.200	7153.85	803.46	809.04	-586.34	40°07'12.849"N	104°41'43.104"W	2.42	
8277.00	90.300	4.400	7153.69	898.19	903.70	-578.39	40°07'13.784"N	104°41'43.001"W	0.94	
8373.00	89.900	2.500	7153.52	994.06	999.53	-572.62	40°07'14.731"N	104°41'42.927"W	2.02	
8468.00	89.900	2.600	7153.68	1089.01	1094.43	-568.39	40°07'15.669"N	104°41'42.873"W	0.11	



Actual Wellpath Report

BYDALEK 4N-20HZ AWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

WELLPATH DATA (116 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8561.00	90.100	1.300	7153.68	1181.98	1187.38	-565.22	40°07'16.588"N	104°41'42.832"W	1.41	
8656.00	89.700	0.200	7153.85	1276.97	1282.37	-563.98	40°07'17.526"N	104°41'42.816"W	1.23	
8753.00	90.000	359.300	7154.10	1373.96	1379.36	-564.40	40°07'18.485"N	104°41'42.821"W	0.98	
8848.00	89.900	359.200	7154.19	1468.94	1474.36	-565.65	40°07'19.424"N	104°41'42.837"W	0.15	
9037.00	90.000	1.000	7154.35	1657.92	1663.35	-565.32	40°07'21.291"N	104°41'42.833"W	0.95	
9227.00	89.900	0.200	7154.52	1847.92	1853.33	-563.33	40°07'23.169"N	104°41'42.808"W	0.42	
9418.00	89.700	1.800	7155.18	2038.91	2044.30	-559.99	40°07'25.056"N	104°41'42.765"W	0.84	
9513.00	90.200	0.300	7155.27	2133.90	2139.28	-558.25	40°07'25.995"N	104°41'42.742"W	1.66	
9702.00	89.600	358.200	7155.60	2322.84	2328.25	-560.73	40°07'27.862"N	104°41'42.774"W	1.16	
9892.00	89.900	359.800	7156.43	2512.77	2518.21	-564.04	40°07'29.739"N	104°41'42.817"W	0.86	
9987.00	90.000	1.900	7156.51	2607.76	2613.20	-562.63	40°07'30.678"N	104°41'42.799"W	2.21	
10082.00	90.300	0.400	7156.26	2702.75	2708.18	-560.73	40°07'31.616"N	104°41'42.774"W	1.61	
10178.00	89.700	358.400	7156.26	2798.73	2804.17	-561.73	40°07'32.565"N	104°41'42.787"W	2.18	
10366.00	89.800	2.900	7157.08	2986.68	2992.10	-559.60	40°07'34.422"N	104°41'42.760"W	2.39	
10462.00	90.300	4.200	7157.00	3082.54	3087.92	-553.66	40°07'35.369"N	104°41'42.683"W	1.45	
10556.00	88.900	0.600	7157.65	3176.47	3181.81	-549.72	40°07'36.297"N	104°41'42.633"W	4.11	
10651.00	88.800	357.200	7159.56	3271.40	3276.76	-551.54	40°07'37.235"N	104°41'42.656"W	3.58	
10745.00	90.200	356.000	7160.38	3365.17	3370.59	-557.12	40°07'38.162"N	104°41'42.728"W	1.96	
10841.00	90.300	356.500	7159.96	3460.90	3466.38	-563.40	40°07'39.109"N	104°41'42.809"W	0.53	
11029.00	89.400	357.100	7160.45	3648.50	3654.09	-573.89	40°07'40.964"N	104°41'42.944"W	0.58	
11123.00	89.300	358.200	7161.52	3742.37	3748.00	-577.75	40°07'41.892"N	104°41'42.994"W	1.17	
11218.00	90.600	357.800	7161.60	3837.27	3842.94	-581.06	40°07'42.830"N	104°41'43.036"W	1.43	
11407.00	89.500	357.900	7161.44	4026.06	4031.80	-588.15	40°07'44.697"N	104°41'43.128"W	0.58	
11502.00	90.700	359.600	7161.27	4121.01	4126.78	-590.22	40°07'45.635"N	104°41'43.155"W	2.19	
11693.00	90.900	359.200	7158.61	4311.95	4317.75	-592.22	40°07'47.522"N	104°41'43.180"W	0.23	LAST BHI MWD+IFR SURVEYS
11755.00	90.900	359.200	7157.63	4373.93	4379.73	-593.09	40°07'48.135"N	104°41'43.191"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: BYDALEK 4N-20HZ AWB Ref Wellpath: BYDALEK 4N-20HZ 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	1018.00	1005.00	13.00	1017.97	0.00	0.00	-0.67	-5.28
9.625in Casing Surface	13.00	1018.00	1005.00	13.00	1017.97	0.00	0.00	-0.67	-5.28
8.75in Open Hole	1018.00	7665.00	6647.00	1017.97	7153.73	-0.67	-5.28	293.80	-625.31
7in Casing Intermediate	13.00	7654.00	7641.00	13.00	7153.51	0.00	0.00	282.81	-625.73
6.125in Open Hole	7654.00	11755.00	4101.00	7153.51	7157.63	282.81	-625.73	4379.73	-593.09



Actual Wellpath Report

BYDALEK 4N-20HZ AWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BYDALEK 7 PAD HARD LINES (460' SETBACKS)		-4.00	4399.58	-858.47	3224732.44	1291254.72	40°07'48.331"N	104°41'46.608"W	polygon
BYDALEK 7 PAD SECTION LINES		-4.00	4399.58	-858.47	3224732.44	1291254.72	40°07'48.331"N	104°41'46.608"W	polygon
BYDALEK 4N-20HZ BHL REV-1 (460'FNL & 655'FWL)		7154.00	4403.92	-533.55	3225057.29	1291262.02	40°07'48.374"N	104°41'42.425"W	point
BYDALEK 4N-20HZ BHL REV-2 (460'FNL & 624'FWL, SEC. 20)		7154.00	4404.25	-564.53	3225026.31	1291262.06	40°07'48.377"N	104°41'42.824"W	point
BYDALEK 4N-20HZ LAND BOX		7154.00	0.00	0.00	3225630.87	1286863.32	40°07'04.854"N	104°41'35.556"W	polygon
PALMER X 20-5 150' RADIUS		7154.00	3057.04	-328.89	3225274.19	1289917.11	40°07'35.064"N	104°41'39.790"W	circle
LUCERO X-20-04 150' RADIUS		7300.00	4417.39	-796.87	3224793.87	1291273.09	40°07'48.507"N	104°41'45.815"W	circle

WELLPATH COMPOSITION - Ref Wellbore: BYDALEK 4N-20HZ AWB Ref Wellpath: BYDALEK 4N-20HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	913.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <113-913>	BYDALEK 4N-20HZ AWB
913.00	7612.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1063-7612>	BYDALEK 4N-20HZ AWB
7612.00	11693.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7707-11693>	BYDALEK 4N-20HZ AWB
11693.00	11755.00	Blind Drilling (std)	Projection to bit	BYDALEK 4N-20HZ AWB



Actual Wellpath Report

BYDALEK 4N-20HZ AWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 BYDALEK 4N-20HZ (461'FSL & 1146'FWL, SEC.20)
Area	COLORADO	Well	BYDALEK 4N-20HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BYDALEK 4N-20HZ AWB
Facility	SEC.20-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	201.070	13.00	TIE-ON
113.00	0.650	201.070	113.00	BEGIN GYRO SURVEYS
913.00	0.590	315.570	912.97	TIE-INTO GYRO SURVEYS
1063.00	0.600	279.500	1062.97	BEGIN BHI MWD+IFR SURVEYS
7654.00	88.717	2.225	7153.51	7" CASING POINT
11693.00	90.900	359.200	7158.61	LAST BHI MWD+IFR SURVEYS
11755.00	90.900	359.200	7157.63	PROJECTION TO BIT