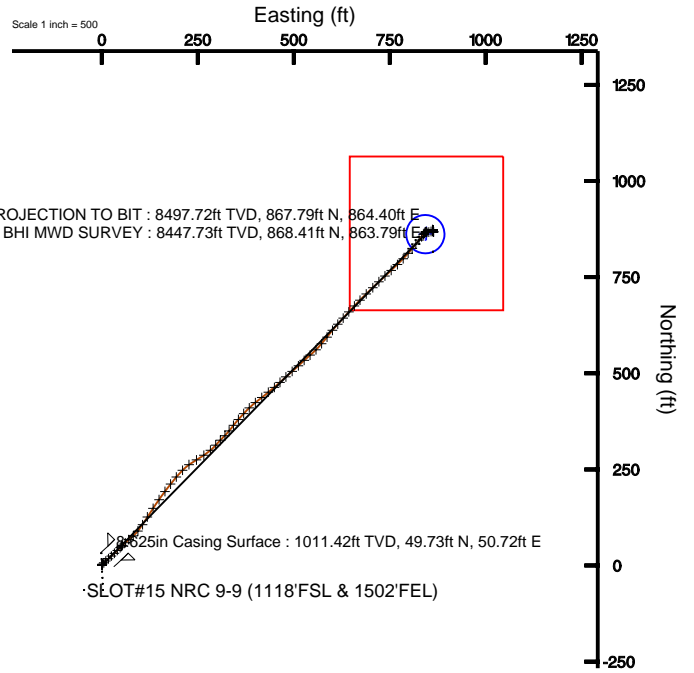
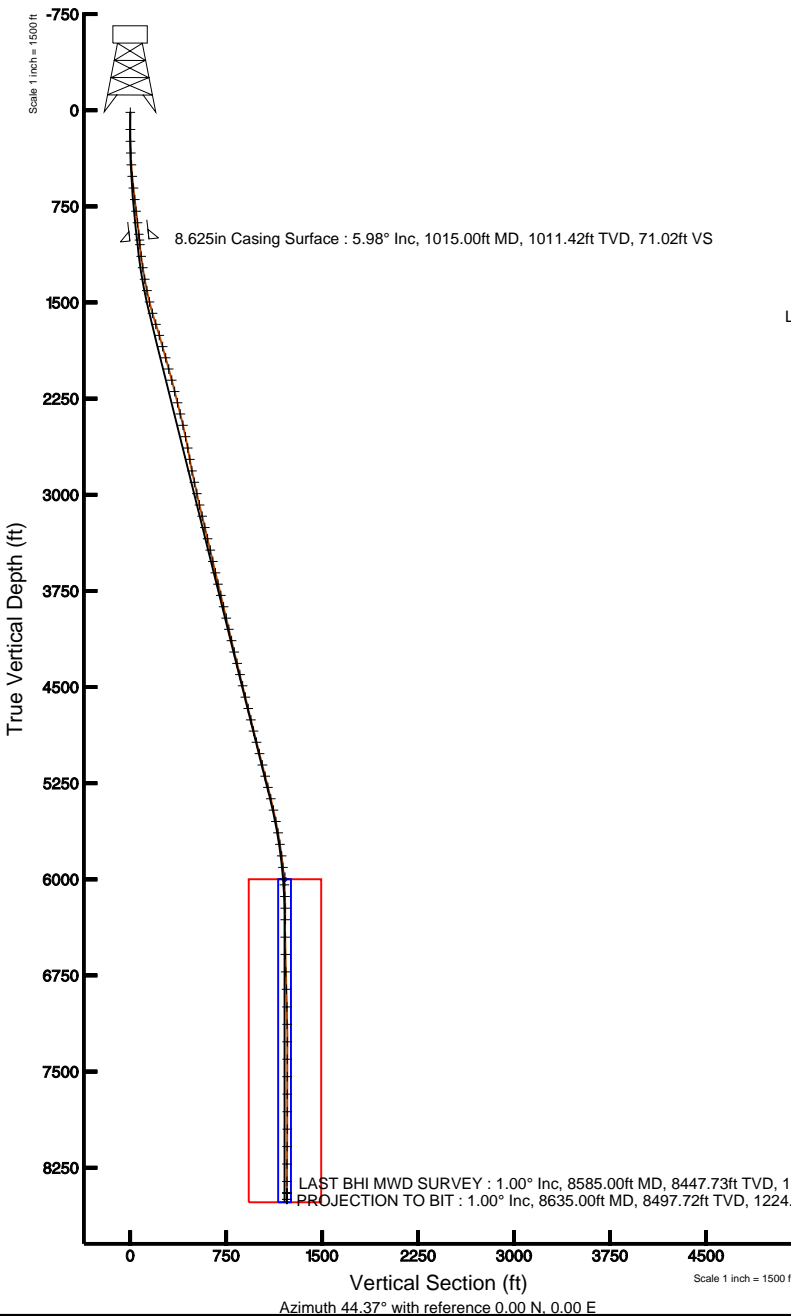


# KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#15 NRC 9-9 (1118'FSL & 1502'FEL)  
 Field: WELD COUNTY (KERR MCGEE) Well: NRC 9-9  
 Facility: SEC.09-T1N-R67W Wellbore: NRC 9-9 PWB



Plot reference wellpath is NRC 9-9 (REV-A.0) PWB	
True vertical depths are referenced to XTREME 12 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 12 (RT)	North Reference: True north
XTREME 12 (RT) to Mean Sea Level: 5039 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.09-T1N-R67W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdanm on 9/21/2010



BGGM (1945.0 to 2012.0) Dip: 66.80° Field: 53051 nT  
 Magnetic North is 8.98 degrees East of True North (at 8/23/2010)

To correct azimuth from Magnetic to True add 8.98 degrees  
 For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 8.98 = 98.98



# Actual Wellpath Report

NRC 9-9 awp

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	<b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#15 NRC 9-9 (1118'FSL &amp; 1502'FEL)</b>
Area	<b>COLORADO</b>	Well	<b>NRC 9-9</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>NRC 9-9 awb</b>
Facility	<b>SEC.09-T1N-R67W</b>		

## REPORT SETUP INFORMATION

Projection System	<b>NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet</b>	Software System	<b>WellArchitect® 2.0</b>
North Reference	<b>True</b>	User	<b>Cookdanm</b>
Scale	<b>0.999962</b>	Report Generated	<b>9/21/2010 at 3:21:16 PM</b>
Convergence at slot	<b>0.39° East</b>	Database/Source file	<b>Denver Server/NRC_9-9_awb.xml</b>

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-2497.94	184.18	3170267.57	1265775.12	<b>40°03'40.820"N</b>	<b>104°53'30.059"W</b>
Facility Reference Pt			3170066.29	1268271.65	<b>40°04'05.506"N</b>	<b>104°53'32.428"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>	XTREME 12 (RT) to Facility Vertical Datum	<b>5039.00ft</b>
Horizontal Reference Pt	<b>Slot</b>	XTREME 12 (RT) to Mean Sea Level	<b>5039.00ft</b>
Vertical Reference Pt	<b>XTREME 12 (RT)</b>	Facility Vertical Datum to Mud Line (Facility)	<b>0.00ft</b>
MD Reference Pt	<b>XTREME 12 (RT)</b>	Section Origin	<b>N 0.00, E 0.00 ft</b>
Field Vertical Reference	<b>Mean Sea Level</b>	Section Azimuth	<b>44.37°</b>



# Actual Wellpath Report

NRC 9-9 awp

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 NRC 9-9 (1118'FSL & 1502'FEL)
Area	COLORADO	Well	NRC 9-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 9-9 awb
Facility	SEC.09-T1N-R67W		

## WELLPATH DATA (90 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	6.800	0.00	0.00	0.00	0.00	0.00	
15.00	0.000	6.800	15.00	0.00	0.00	0.00	0.00	
149.00	0.700	6.800	149.00	0.65	0.81	0.10	0.52	
241.00	0.500	3.400	240.99	1.40	1.77	0.19	0.22	
333.00	2.300	43.800	332.96	3.55	3.50	1.49	2.12	
425.00	3.600	44.900	424.84	8.28	6.88	4.81	1.41	
516.00	5.100	50.400	515.57	15.16	11.49	9.94	1.71	
607.00	6.600	47.700	606.10	24.40	17.58	16.92	1.68	
698.00	6.500	47.700	696.50	34.77	24.57	24.60	0.11	
789.00	6.800	47.000	786.89	45.29	31.71	32.35	0.34	
880.00	6.800	45.900	877.25	56.06	39.13	40.16	0.14	
970.00	6.200	44.200	966.67	66.24	46.33	47.37	0.70	
1052.00	5.800	45.600	1048.22	74.81	52.40	53.42	0.52	
1143.00	6.900	49.800	1138.66	84.85	59.14	60.88	1.31	
1233.00	8.800	49.400	1227.82	97.09	67.12	70.24	2.11	
1324.00	10.200	48.400	1317.57	112.07	77.00	81.55	1.55	
1415.00	12.100	40.400	1406.85	129.62	89.61	93.76	2.69	
1506.00	14.000	32.600	1495.50	149.92	106.15	105.87	2.84	
1597.00	16.200	31.900	1583.35	173.09	126.20	118.51	2.43	
1687.00	18.300	35.100	1669.30	199.30	148.42	133.27	2.56	
1778.00	17.200	34.300	1755.97	226.65	171.23	149.07	1.24	
1869.00	16.100	37.200	1843.16	252.41	192.39	164.28	1.51	
1960.00	14.800	37.500	1930.86	276.47	211.67	178.99	1.43	
2051.00	15.600	40.600	2018.68	300.22	230.18	194.03	1.25	
2141.00	14.900	44.800	2105.52	323.87	247.58	210.06	1.45	
2232.00	13.800	53.600	2193.69	346.29	262.32	227.04	2.68	
2323.00	15.400	61.700	2281.75	368.54	274.49	246.42	2.85	
2413.00	14.100	54.000	2368.79	390.75	286.60	265.81	2.61	
2504.00	13.100	49.800	2457.24	411.95	299.78	282.66	1.54	
2595.00	11.300	42.400	2546.19	431.13	313.02	296.55	2.62	
2686.00	11.200	44.500	2635.44	448.88	325.91	308.75	0.46	
2776.00	10.200	45.600	2723.88	465.59	337.72	320.57	1.13	
2867.00	10.600	37.100	2813.39	481.94	350.03	331.38	1.74	
2958.00	12.600	39.200	2902.52	500.13	364.40	342.70	2.25	
3048.00	13.200	41.300	2990.25	520.17	379.73	355.69	0.85	
3139.00	13.200	42.800	3078.85	540.93	395.15	369.60	0.38	
3230.00	13.300	46.300	3167.43	561.78	410.01	384.23	0.89	
3321.00	13.400	51.500	3255.97	582.71	423.81	400.05	1.32	
3411.00	14.100	51.500	3343.39	603.93	437.12	416.79	0.78	
3502.00	13.600	50.500	3431.75	625.57	450.83	433.72	0.61	
3593.00	11.900	53.000	3520.50	645.48	463.28	449.47	1.96	
3684.00	13.100	44.500	3609.35	665.07	476.28	464.20	2.41	
3774.00	13.700	49.100	3696.90	685.90	490.54	479.40	1.36	
3865.00	14.100	49.100	3785.23	707.68	504.85	495.93	0.44	
3956.00	13.600	46.300	3873.59	729.42	519.50	512.04	0.92	



# Actual Wellpath Report

NRC 9-9 awp

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 NRC 9-9 (1118'FSL & 1502'FEL)
Area	COLORADO	Well	NRC 9-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 9-9 awb
Facility	SEC.09-T1N-R67W		

## WELLPATH DATA (90 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4047.00	12.900	48.000	3962.17	750.25	533.69	527.32	0.88	
4137.00	13.200	49.100	4049.84	770.52	547.14	542.56	0.43	
4228.00	13.300	45.900	4138.42	791.34	561.23	557.93	0.81	
4319.00	13.800	40.300	4226.89	812.63	576.79	572.46	1.54	
4410.00	14.800	38.500	4315.07	835.02	594.16	586.72	1.20	
4501.00	13.800	38.900	4403.25	857.38	611.71	600.77	1.10	
4591.00	13.500	43.100	4490.71	878.57	627.73	614.69	1.15	
4682.00	13.500	41.300	4579.20	899.80	643.47	628.96	0.46	
4773.00	14.400	42.800	4667.51	921.72	659.75	643.66	1.07	
4864.00	12.500	43.400	4756.01	942.88	675.21	658.11	2.09	
4954.00	14.200	44.500	4843.58	963.65	690.16	672.54	1.91	
5045.00	15.100	46.300	4931.62	986.66	706.31	688.93	1.11	
5136.00	14.900	46.300	5019.52	1010.20	722.58	705.96	0.22	
5227.00	13.500	44.900	5107.74	1032.52	738.19	721.92	1.58	
5318.00	14.300	48.400	5196.07	1054.35	753.18	737.82	1.27	
5408.00	13.700	47.700	5283.40	1076.08	767.73	754.02	0.69	
5499.00	14.400	46.300	5371.68	1098.14	782.80	770.17	0.86	
5590.00	12.900	43.800	5460.10	1119.61	797.95	785.38	1.77	
5681.00	11.400	40.600	5549.06	1138.74	812.11	798.26	1.81	
5771.00	9.800	38.900	5637.53	1155.25	824.82	808.86	1.81	
5862.00	8.900	39.200	5727.32	1169.97	836.31	818.18	0.99	
5953.00	7.900	38.200	5817.34	1183.19	846.68	826.49	1.11	
6044.00	5.600	38.200	5907.70	1193.83	855.08	833.11	2.53	
6135.00	4.500	37.800	5998.35	1201.79	861.39	838.04	1.21	
6180.00	3.700	33.900	6043.23	1204.97	863.99	839.93	1.88	
6271.00	1.600	47.300	6134.13	1209.13	867.29	842.50	2.39	
6362.00	0.900	69.800	6225.11	1211.04	868.40	844.11	0.93	
6452.00	0.200	82.800	6315.10	1211.80	868.66	844.93	0.79	
6588.00	0.900	155.200	6451.10	1211.61	867.72	845.61	0.63	
6724.00	1.200	92.300	6587.08	1212.18	866.70	847.48	0.83	
6860.00	2.600	80.000	6723.00	1215.64	867.17	851.94	1.07	
6996.00	2.800	67.400	6858.85	1221.21	868.99	858.05	0.46	
7133.00	0.900	47.300	6995.77	1225.36	871.00	861.93	1.44	
7269.00	0.400	332.800	7131.77	1226.58	872.15	862.50	0.65	
7405.00	0.400	312.400	7267.76	1226.71	872.89	861.93	0.10	
7542.00	0.200	349.300	7404.76	1226.83	873.45	861.53	0.20	
7678.00	0.200	137.700	7540.76	1226.96	873.51	861.65	0.28	
7814.00	0.200	120.500	7676.76	1227.00	873.21	862.01	0.04	
7951.00	0.300	102.500	7813.76	1227.25	873.01	862.57	0.09	
8087.00	0.400	203.100	7949.76	1226.99	872.50	862.73	0.40	
8223.00	0.500	200.300	8085.75	1226.01	871.51	862.34	0.08	
8359.00	0.400	185.100	8221.75	1225.10	870.48	862.09	0.11	
8495.00	0.800	130.600	8357.74	1224.79	869.38	862.77	0.48	
8585.00	1.000	135.900	8447.73	1224.81	868.41	863.79	0.24	LAST BHI MWD SURVEY
8635.00	1.000	135.900	8497.72	1224.79	867.79	864.40	0.00	PROJECTION TO BIT



# Actual Wellpath Report

NRC 9-9 awp

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#15 NRC 9-9 (1118'FSL & 1502'FEL)
Area	COLORADO	Well	NRC 9-9
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NRC 9-9 awb
Facility	SEC.09-T1N-R67W		

## HOLE & CASING SECTIONS Ref Wellbore: NRC 9-9 awb Ref Wellpath: NRC 9-9 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]
12.25in Open Hole	15.00	1015.00	1000.00	15.00	1011.42	0.00	0.00	49.73	50.72
8.625in Casing Surface	15.00	1015.00	1000.00	15.00	1011.42	0.00	0.00	49.73	50.72
6.75in Open Hole	1015.00	8635.00	7620.00	1011.42	8497.72	49.73	50.72	867.79	864.40

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
NRC 9-9 GEO TARGET 50' RADIUS (1980'FSL & 660'FEL, REV-1)		6000.00	861.93	843.07	3171104.67	1266642.78	40°03'49.338"N	104°53'19.216"W	circle
NRC 9-9 LEGAL BOX (198'S, 202'W, 203'E, 197'W OF GEO TARGET)		6000.00	863.93	846.07	3171107.66	1266644.80	40°03'49.358"N	104°53'19.177"W	square

## WELLPATH COMPOSITION Ref Wellbore: NRC 9-9 awb Ref Wellpath: NRC 9-9 awp

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	970.00	NaviTrak (Standard)	BHI MWD SURFACE SURVEYS 12.25 HOLE <149-970>	NRC 9-9 awb
970.00	8585.00	NaviTrak (Standard)	BHI MWD INTERMEDIATE TO PRODUCTION SURVEYS 6.75 HOLE <1052-8585>	NRC 9-9 awb
8585.00	8635.00	Blind Drilling (std)	Projection to bit	NRC 9-9 awb



# Actual Wellpath Report

NRC 9-9 awp

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	<b>KERR MCGEE OIL &amp; GAS ONSHORE LP</b>	Slot	<b>SLOT#15 NRC 9-9 (1118'FSL &amp; 1502'FEL)</b>
Area	<b>COLORADO</b>	Well	<b>NRC 9-9</b>
Field	<b>WELD COUNTY (KERR MCGEE)</b>	Wellbore	<b>NRC 9-9 awb</b>
Facility	<b>SEC.09-T1N-R67W</b>		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8585.00	1.000	135.900	8447.73	LAST BHI MWD SURVEY
8635.00	1.000	135.900	8497.72	PROJECTION TO BIT