

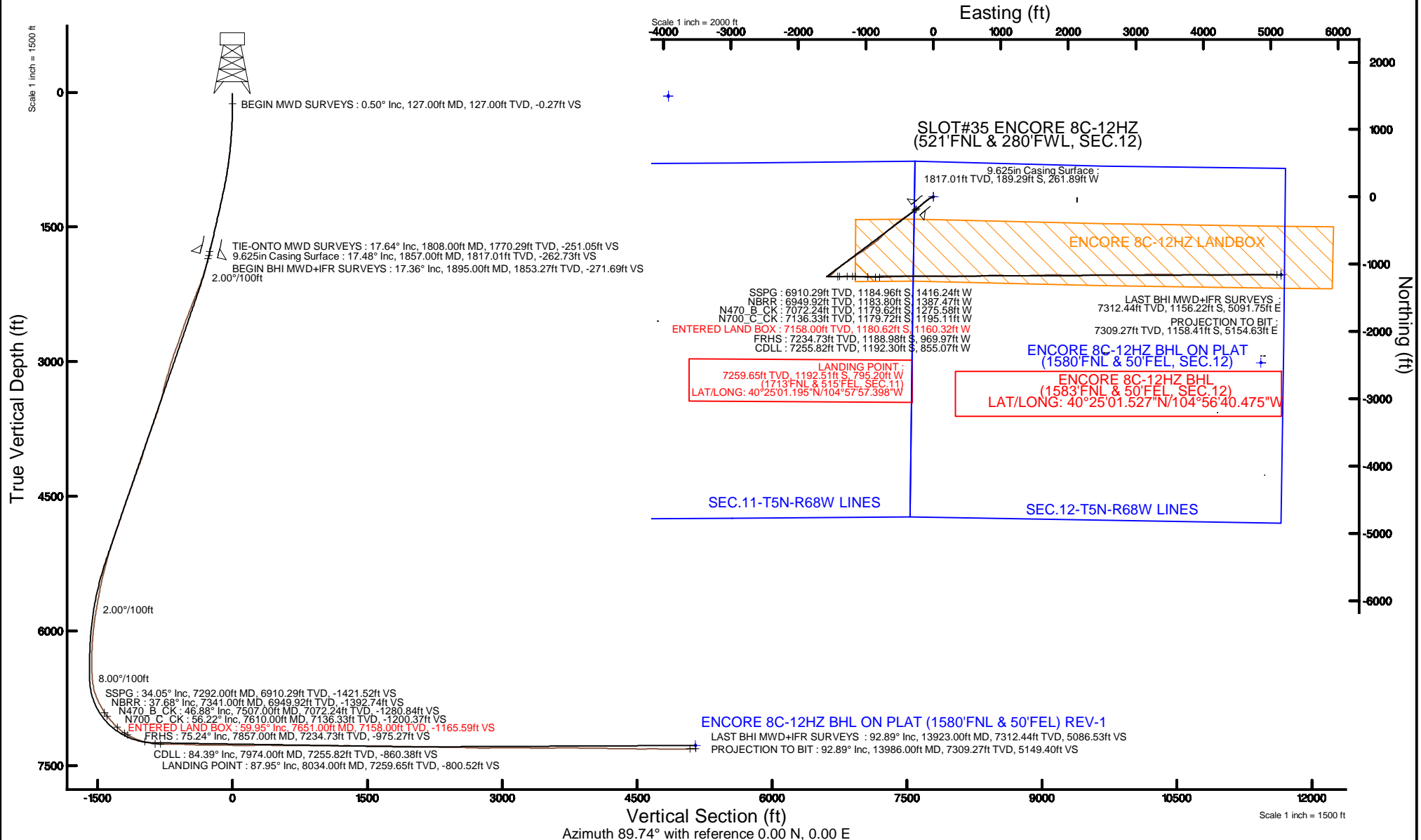
# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)  
Field: LARIMER COUNTY Well: ENCORE 8C-12HZ  
Facility: SEC.12-T5N-R68W Wellbore: ENCORE 8C-12HZ PWB



Plot reference wellpath is ENCORE 8C-12HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 23 (16'KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to XTREME 23 (16'KB) (RKB)	North Reference: True north
XTREME 23 (16'KB) (RKB) to Mean Sea Level: 5006 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarc on 04/Sep/2015





# Actual Wellpath Report

ENCORE 8C-12HZ AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWB <13986>
Facility	SEC.12-T5N-R68W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Amarcar
Scale	0.9996	Report Generated	04/Sep/2015 at 07:42
Convergence at slot	0.02° East	Database/Source file	MAP CHECK./ENCORE_8C-12HZ_AWB__13986_.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	2365.19	-4916.14	1650690.24	14679779.19	40°25'12.979"N	104°57'47.117"W
Facility Reference Pt			1655605.86	14677417.99	40°24'49.612"N	104°56'43.555"W
Field Reference Pt			0.00	0.00	0°00'00.000"	109°29'19.478"W

## WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 23 (16'KB) (RKB) to Facility Vertical Datum	5006.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	5006.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12))	5006.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.74°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWP <13986>
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (153 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	325.920	0.00	0.00	0.00	0.00	40°25'12.979"N	104°57'47.117"W	0.00	
16.00	0.000	325.920	16.00	0.00	0.00	0.00	40°25'12.979"N	104°57'47.117"W	0.00	
127.00	0.500	325.920	127.00	-0.27	0.40	-0.27	40°25'12.983"N	104°57'47.121"W	0.45	BEGIN MWD SURVEYS
218.00	0.650	267.100	217.99	-1.01	0.70	-1.01	40°25'12.986"N	104°57'47.130"W	0.64	
309.00	2.240	241.430	308.96	-3.09	-0.17	-3.09	40°25'12.977"N	104°57'47.157"W	1.84	
437.00	4.440	240.000	436.74	-9.59	-3.85	-9.58	40°25'12.941"N	104°57'47.241"W	1.72	
532.00	4.690	249.270	531.44	-16.42	-7.06	-16.39	40°25'12.909"N	104°57'47.329"W	0.82	
627.00	6.120	254.550	626.01	-24.95	-9.78	-24.91	40°25'12.882"N	104°57'47.439"W	1.59	
757.00	8.200	242.170	755.00	-39.86	-15.96	-39.79	40°25'12.821"N	104°57'47.631"W	1.98	
848.00	9.910	238.720	844.86	-52.32	-23.06	-52.22	40°25'12.751"N	104°57'47.792"W	1.97	
1007.00	12.910	235.640	1000.71	-78.76	-40.19	-78.58	40°25'12.582"N	104°57'48.133"W	1.92	
1102.00	14.720	234.460	1092.95	-97.40	-53.19	-97.16	40°25'12.453"N	104°57'48.373"W	1.93	
1197.00	15.400	231.660	1184.69	-117.18	-68.04	-116.88	40°25'12.307"N	104°57'48.628"W	1.05	
1292.00	16.590	228.170	1276.01	-137.26	-84.91	-136.88	40°25'12.140"N	104°57'48.887"W	1.61	
1386.00	16.770	229.450	1366.06	-157.64	-102.67	-157.18	40°25'11.964"N	104°57'49.149"W	0.44	
1481.00	16.750	228.910	1457.02	-178.45	-120.58	-177.91	40°25'11.787"N	104°57'49.417"W	0.17	
1576.00	16.380	229.940	1548.08	-199.10	-138.20	-198.48	40°25'11.613"N	104°57'49.683"W	0.50	
1671.00	16.340	231.250	1639.23	-219.85	-155.18	-219.16	40°25'11.446"N	104°57'49.951"W	0.39	
1767.00	17.130	230.930	1731.17	-241.44	-172.55	-240.67	40°25'11.274"N	104°57'50.229"W	0.83	
1808.00	17.640	232.020	1770.29	-251.05	-180.18	-250.25	40°25'11.199"N	104°57'50.353"W	1.48	TIE-ONTO MWD SURVEYS
1895.00	17.360	231.640	1853.27	-271.69	-196.34	-270.82	40°25'11.039"N	104°57'50.618"W	0.35	BEGIN BHI MWD+IFR SURVEYS
1990.00	19.290	233.630	1943.45	-295.53	-214.44	-294.57	40°25'10.860"N	104°57'50.926"W	2.14	
2085.00	21.520	234.130	2032.48	-322.37	-233.96	-321.33	40°25'10.667"N	104°57'51.271"W	2.35	
2180.00	23.950	235.590	2120.09	-352.50	-255.07	-351.36	40°25'10.458"N	104°57'51.660"W	2.63	
2275.00	25.750	236.420	2206.29	-385.70	-277.38	-384.46	40°25'10.238"N	104°57'52.088"W	1.93	
2370.00	25.450	235.630	2291.97	-419.84	-300.32	-418.50	40°25'10.011"N	104°57'52.528"W	0.48	
2465.00	25.630	234.890	2377.69	-453.60	-323.66	-452.16	40°25'09.781"N	104°57'52.963"W	0.39	
2560.00	25.590	233.720	2463.35	-487.06	-347.62	-485.51	40°25'09.544"N	104°57'53.394"W	0.53	
2656.00	24.730	232.390	2550.24	-519.79	-372.14	-518.13	40°25'09.302"N	104°57'53.816"W	1.07	
2847.00	23.380	229.980	2724.66	-580.68	-420.90	-578.81	40°25'08.820"N	104°57'54.600"W	0.87	
2942.00	25.230	231.180	2811.23	-611.00	-445.71	-609.02	40°25'08.575"N	104°57'54.991"W	2.02	
3132.00	23.150	229.210	2984.54	-671.06	-495.50	-668.85	40°25'08.083"N	104°57'55.765"W	1.17	
3228.00	22.050	228.240	3073.17	-698.90	-519.83	-696.58	40°25'07.842"N	104°57'56.123"W	1.21	
3323.00	20.750	226.430	3161.62	-724.50	-543.31	-722.08	40°25'07.610"N	104°57'56.453"W	1.53	
3514.00	19.680	224.790	3340.85	-771.88	-589.46	-769.25	40°25'07.154"N	104°57'57.063"W	0.63	
3609.00	20.210	226.740	3430.16	-795.20	-612.06	-792.47	40°25'06.931"N	104°57'57.363"W	0.90	
3705.00	22.770	229.290	3519.48	-821.47	-635.54	-818.64	40°25'06.699"N	104°57'57.701"W	2.84	
3800.00	23.680	233.740	3606.79	-850.89	-658.82	-847.96	40°25'06.469"N	104°57'58.080"W	2.08	
3895.00	23.950	233.310	3693.70	-881.84	-681.62	-878.80	40°25'06.243"N	104°57'58.479"W	0.34	
3991.00	24.050	232.920	3781.40	-913.17	-705.06	-910.03	40°25'06.012"N	104°57'58.883"W	0.20	
4086.00	22.990	233.640	3868.50	-943.66	-727.73	-940.42	40°25'05.788"N	104°57'59.276"W	1.16	
4181.00	21.150	231.740	3956.54	-972.16	-749.34	-968.82	40°25'05.574"N	104°57'59.643"W	2.08	
4277.00	21.040	234.580	4046.11	-999.89	-770.06	-996.46	40°25'05.369"N	104°58'00.000"W	1.07	
4372.00	23.030	236.090	4134.17	-1029.30	-790.31	-1025.78	40°25'05.169"N	104°58'00.379"W	2.18	
4466.00	23.400	237.760	4220.56	-1060.44	-810.52	-1056.83	40°25'04.969"N	104°58'00.781"W	0.80	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWP <13986>
Facility	SEC.12-T5N-R68W		

## WELLPATH DATA (153 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4562.00	22.610	237.340	4308.92	-1092.19	-830.65	-1088.49	40°25'04.771"N	104°58'01.190"W	0.84	
4657.00	22.940	236.920	4396.51	-1123.17	-850.61	-1119.38	40°25'04.573"N	104°58'01.589"W	0.39	
4751.00	23.620	235.110	4482.86	-1154.06	-871.38	-1150.18	40°25'04.368"N	104°58'01.987"W	1.05	
4847.00	23.150	235.180	4570.97	-1185.42	-893.16	-1181.44	40°25'04.153"N	104°58'02.392"W	0.49	
4942.00	23.050	234.640	4658.36	-1216.02	-914.59	-1211.94	40°25'03.941"N	104°58'02.786"W	0.25	
5037.00	22.280	233.760	4746.02	-1245.80	-936.00	-1241.63	40°25'03.730"N	104°58'03.170"W	0.89	
5132.00	22.770	233.880	4833.77	-1275.28	-957.48	-1271.01	40°25'03.517"N	104°58'03.550"W	0.52	
5228.00	21.710	233.370	4922.63	-1304.63	-979.02	-1300.27	40°25'03.304"N	104°58'03.928"W	1.12	
5323.00	22.690	235.190	5010.59	-1333.87	-999.97	-1329.41	40°25'03.097"N	104°58'04.305"W	1.26	
5418.00	21.260	233.890	5098.68	-1362.92	-1020.58	-1358.37	40°25'02.894"N	104°58'04.679"W	1.59	
5513.00	19.080	231.580	5187.85	-1389.09	-1040.38	-1384.46	40°25'02.698"N	104°58'05.016"W	2.44	
5609.00	18.860	232.130	5278.64	-1413.72	-1059.66	-1409.00	40°25'02.507"N	104°58'05.334"W	0.30	
5704.00	16.520	228.290	5369.14	-1436.01	-1078.07	-1431.21	40°25'02.325"N	104°58'05.621"W	2.75	
5799.00	17.140	227.570	5460.08	-1456.51	-1096.50	-1451.62	40°25'02.143"N	104°58'05.885"W	0.69	
5893.00	15.500	221.950	5550.29	-1475.21	-1115.19	-1470.24	40°25'01.959"N	104°58'06.125"W	2.42	
5988.00	13.550	226.430	5642.25	-1491.84	-1132.31	-1486.79	40°25'01.790"N	104°58'06.339"W	2.37	
6084.00	12.430	233.440	5735.80	-1508.35	-1146.21	-1503.24	40°25'01.652"N	104°58'06.552"W	2.01	
6179.00	11.470	230.060	5828.74	-1523.86	-1158.37	-1518.70	40°25'01.532"N	104°58'06.752"W	1.25	
6274.00	9.050	233.750	5922.22	-1537.18	-1168.85	-1531.97	40°25'01.428"N	104°58'06.923"W	2.64	
6368.00	6.490	241.470	6015.35	-1547.84	-1175.76	-1542.60	40°25'01.360"N	104°58'07.061"W	2.94	
6464.00	4.180	252.250	6110.93	-1555.95	-1179.42	-1550.70	40°25'01.324"N	104°58'07.165"W	2.61	
6559.00	2.000	250.490	6205.78	-1560.82	-1181.03	-1555.56	40°25'01.308"N	104°58'07.228"W	2.30	
6654.00	0.370	223.080	6300.76	-1562.60	-1181.81	-1557.33	40°25'01.300"N	104°58'07.251"W	1.77	
6749.00	0.210	35.230	6395.76	-1562.71	-1181.89	-1557.44	40°25'01.300"N	104°58'07.253"W	0.61	
6844.00	2.920	100.650	6490.72	-1560.23	-1182.20	-1554.96	40°25'01.297"N	104°58'07.221"W	2.99	
6940.00	7.300	97.650	6586.31	-1551.78	-1183.46	-1546.51	40°25'01.284"N	104°58'07.111"W	4.57	
7035.00	17.040	91.640	6679.07	-1531.84	-1184.66	-1526.57	40°25'01.272"N	104°58'06.853"W	10.33	
7130.00	24.210	90.990	6767.92	-1498.41	-1185.40	-1493.13	40°25'01.265"N	104°58'06.421"W	7.55	
7226.00	28.540	89.750	6853.91	-1455.78	-1185.64	-1450.50	40°25'01.263"N	104°58'05.870"W	4.55	
7292.00†	34.045	88.110	6910.29	-1421.52	-1184.96	-1416.24	40°25'01.269"N	104°58'05.427"W	8.44	SSPG
7321.00	36.470	87.530	6933.97	-1404.79	-1184.32	-1399.51	40°25'01.276"N	104°58'05.211"W	8.44	
7341.00†	37.681	87.511	6949.92	-1392.74	-1183.80	-1387.47	40°25'01.281"N	104°58'05.055"W	6.05	NBRR
7416.00	42.220	87.450	7007.40	-1344.63	-1181.68	-1339.37	40°25'01.302"N	104°58'04.433"W	6.05	
7507.00†	46.875	88.796	7072.24	-1280.84	-1179.62	-1275.58	40°25'01.322"N	104°58'03.609"W	5.22	N470_B_CK
7511.00	47.080	88.850	7074.97	-1277.92	-1179.56	-1272.66	40°25'01.323"N	104°58'03.571"W	5.22	
7606.00	55.860	91.140	7134.09	-1203.68	-1179.65	-1198.43	40°25'01.322"N	104°58'02.611"W	9.43	
7610.00†	56.223	91.200	7136.33	-1200.37	-1179.72	-1195.11	40°25'01.321"N	104°58'02.568"W	9.16	N700_C_CK
7651.00†	59.946	91.783	7158.00	-1165.59	-1180.62	-1160.32	40°25'01.312"N	104°58'02.118"W	9.16	ENTERED LAND BOX
7702.00	64.580	92.450	7181.73	-1120.50	-1182.30	-1115.23	40°25'01.296"N	104°58'01.535"W	9.16	
7797.00	71.240	92.830	7217.44	-1032.64	-1186.36	-1027.35	40°25'01.256"N	104°58'00.399"W	7.02	
7857.00†	75.240	92.419	7234.73	-975.27	-1188.98	-969.97	40°25'01.230"N	104°57'59.657"W	6.70	FRHS
7893.00	77.640	92.180	7243.17	-940.31	-1190.39	-935.00	40°25'01.216"N	104°57'59.205"W	6.70	
7974.00†	84.392	90.573	7255.82	-860.38	-1192.30	-855.07	40°25'01.197"N	104°57'58.172"W	8.56	CDLL
7988.00	85.560	90.300	7257.04	-846.44	-1192.40	-841.12	40°25'01.196"N	104°57'57.992"W	8.56	
8034.00†	87.947	89.961	7259.65	-800.52	-1192.51	-795.20	40°25'01.195"N	104°57'57.398"W	5.24	LANDING POINT



# Actual Wellpath Report

ENCORE 8C-12HZ AWP  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWB <13986>
Facility	SEC.12-T5N-R68W		

## WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8083.00	90.490	89.600	7260.32	-751.53	-1192.32	-746.21	40°25'01.197"N	104°57'56.764"W	5.24	
8179.00	89.870	87.200	7260.01	-655.56	-1189.64	-650.25	40°25'01.223"N	104°57'55.524"W	2.58	
8274.00	87.780	86.930	7261.96	-560.69	-1184.78	-555.40	40°25'01.271"N	104°57'54.298"W	2.22	
8369.00	87.350	89.250	7266.00	-465.82	-1181.61	-460.55	40°25'01.303"N	104°57'53.071"W	2.48	
8464.00	88.270	89.700	7269.63	-370.89	-1180.74	-365.62	40°25'01.311"N	104°57'51.844"W	1.08	
8560.00	89.690	89.710	7271.34	-274.91	-1180.25	-269.64	40°25'01.316"N	104°57'50.603"W	1.48	
8655.00	89.260	89.700	7272.21	-179.92	-1179.76	-174.65	40°25'01.321"N	104°57'49.375"W	0.45	
8750.00	90.300	89.570	7272.57	-84.92	-1179.16	-79.65	40°25'01.327"N	104°57'48.147"W	1.10	
8845.00	88.760	90.160	7273.35	10.07	-1178.93	15.34	40°25'01.329"N	104°57'46.919"W	1.74	
8941.00	89.290	90.420	7274.99	106.06	-1179.42	111.33	40°25'01.324"N	104°57'45.678"W	0.61	
9036.00	91.320	91.440	7274.48	201.03	-1180.96	206.31	40°25'01.309"N	104°57'44.450"W	2.39	
9130.00	90.980	89.900	7272.59	294.99	-1182.06	300.28	40°25'01.298"N	104°57'43.235"W	1.68	
9225.00	88.860	88.880	7272.73	389.99	-1181.05	395.27	40°25'01.308"N	104°57'42.007"W	2.48	
9320.00	90.000	88.960	7273.67	484.97	-1179.26	490.24	40°25'01.326"N	104°57'40.779"W	1.20	
9415.00	89.530	87.980	7274.06	579.94	-1176.72	585.21	40°25'01.351"N	104°57'39.551"W	1.14	
9510.00	90.430	87.510	7274.09	674.88	-1172.98	680.13	40°25'01.388"N	104°57'38.324"W	1.07	
9606.00	89.350	88.260	7274.28	770.83	-1169.44	776.06	40°25'01.423"N	104°57'37.084"W	1.37	
9701.00	88.580	89.460	7275.99	865.80	-1167.55	871.03	40°25'01.442"N	104°57'35.856"W	1.50	
9796.00	90.400	90.500	7276.84	960.79	-1167.52	966.02	40°25'01.442"N	104°57'34.628"W	2.21	
9892.00	88.610	90.580	7277.67	1056.78	-1168.42	1062.01	40°25'01.433"N	104°57'33.387"W	1.87	
9987.00	90.240	91.270	7278.62	1151.75	-1169.95	1156.99	40°25'01.418"N	104°57'32.159"W	1.86	
10082.00	90.330	90.420	7278.15	1246.73	-1171.36	1251.97	40°25'01.404"N	104°57'30.931"W	0.90	
10177.00	89.100	88.560	7278.62	1341.72	-1170.51	1346.96	40°25'01.412"N	104°57'29.703"W	2.35	
10273.00	90.730	88.440	7278.77	1437.69	-1168.00	1442.93	40°25'01.437"N	104°57'28.462"W	1.70	
10368.00	89.530	88.800	7278.55	1532.67	-1165.71	1537.90	40°25'01.459"N	104°57'27.234"W	1.32	
10463.00	88.150	87.370	7280.47	1627.61	-1162.54	1632.82	40°25'01.491"N	104°57'26.007"W	2.09	
10558.00	89.260	89.380	7282.62	1722.55	-1159.84	1727.75	40°25'01.517"N	104°57'24.780"W	2.42	
10653.00	89.500	91.260	7283.65	1817.54	-1160.37	1822.74	40°25'01.512"N	104°57'23.551"W	1.99	
10749.00	88.120	90.480	7285.64	1913.49	-1161.83	1918.70	40°25'01.498"N	104°57'22.311"W	1.65	
10844.00	87.510	90.530	7289.26	2008.42	-1162.67	2013.63	40°25'01.489"N	104°57'21.083"W	0.64	
10939.00	89.440	91.010	7291.79	2103.36	-1163.94	2108.58	40°25'01.476"N	104°57'19.856"W	2.09	
11034.00	89.870	88.950	7292.36	2198.36	-1163.91	2203.58	40°25'01.477"N	104°57'18.628"W	2.22	
11129.00	88.890	88.800	7293.39	2293.34	-1162.05	2298.55	40°25'01.495"N	104°57'17.400"W	1.04	
11224.00	90.360	88.330	7294.01	2388.31	-1159.67	2393.52	40°25'01.518"N	104°57'16.172"W	1.62	
11319.00	89.080	89.980	7294.48	2483.30	-1158.27	2488.50	40°25'01.532"N	104°57'14.944"W	2.20	
11414.00	87.290	89.870	7297.49	2578.25	-1158.14	2583.45	40°25'01.533"N	104°57'13.717"W	1.89	
11509.00	87.840	89.750	7301.52	2673.16	-1157.83	2678.36	40°25'01.536"N	104°57'12.489"W	0.59	
11605.00	89.440	89.890	7303.80	2769.13	-1157.53	2774.33	40°25'01.539"N	104°57'11.249"W	1.67	
11700.00	91.290	89.990	7303.20	2864.13	-1157.43	2869.33	40°25'01.540"N	104°57'10.021"W	1.95	
11795.00	90.770	89.330	7301.49	2959.11	-1156.86	2964.31	40°25'01.546"N	104°57'08.793"W	0.88	
11890.00	89.010	89.390	7301.67	3054.10	-1155.80	3059.30	40°25'01.556"N	104°57'07.564"W	1.85	
11985.00	90.120	89.180	7302.39	3149.10	-1154.62	3154.29	40°25'01.568"N	104°57'06.336"W	1.19	
12080.00	89.850	89.850	7302.42	3244.09	-1153.81	3249.28	40°25'01.575"N	104°57'05.108"W	0.76	
12175.00	88.580	90.380	7303.72	3339.08	-1154.00	3344.27	40°25'01.573"N	104°57'03.880"W	1.45	
12270.00	89.190	90.170	7305.57	3434.06	-1154.46	3439.25	40°25'01.569"N	104°57'02.652"W	0.68	



# Actual Wellpath Report

ENCORE 8C-12HZ AWP  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWB <13986>
Facility	SEC.12-T5N-R68W		

## WELLPATH DATA (153 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12365.00	91.870	90.240	7304.69	3529.04	-1154.80	3534.24	40°25'01.565"N	104°57'01.424"W	2.82	
12461.00	90.580	90.810	7302.64	3625.01	-1155.68	3630.21	40°25'01.556"N	104°57'00.183"W	1.47	
12556.00	89.410	90.870	7302.64	3719.99	-1157.07	3725.20	40°25'01.543"N	104°56'58.955"W	1.23	
12650.00	90.000	91.860	7303.13	3813.95	-1159.31	3819.17	40°25'01.520"N	104°56'57.740"W	1.23	
12745.00	88.180	90.100	7304.64	3908.91	-1160.93	3914.13	40°25'01.504"N	104°56'56.513"W	2.66	
12840.00	89.840	90.160	7306.28	4003.89	-1161.15	4009.12	40°25'01.502"N	104°56'55.285"W	1.75	
12935.00	89.500	91.100	7306.83	4098.87	-1162.19	4104.11	40°25'01.491"N	104°56'54.056"W	1.05	
13030.00	87.620	89.480	7309.21	4193.83	-1162.68	4199.07	40°25'01.486"N	104°56'52.829"W	2.61	
13125.00	88.580	89.280	7312.36	4288.78	-1161.65	4294.01	40°25'01.496"N	104°56'51.601"W	1.03	
13220.00	90.850	88.830	7312.84	4383.76	-1160.08	4388.99	40°25'01.512"N	104°56'50.373"W	2.44	
13315.00	88.640	88.240	7313.26	4478.73	-1157.65	4483.95	40°25'01.536"N	104°56'49.146"W	2.41	
13411.00	90.800	88.600	7313.73	4574.70	-1155.01	4579.91	40°25'01.561"N	104°56'47.905"W	2.28	
13506.00	90.120	89.400	7312.96	4669.69	-1153.35	4674.89	40°25'01.578"N	104°56'46.677"W	1.11	
13602.00	88.370	89.630	7314.23	4765.68	-1152.54	4770.87	40°25'01.586"N	104°56'45.436"W	1.84	
13697.00	89.810	89.790	7315.74	4860.66	-1152.05	4865.86	40°25'01.590"N	104°56'44.208"W	1.53	
13793.00	90.090	91.060	7315.82	4956.65	-1152.77	4961.85	40°25'01.583"N	104°56'42.967"W	1.35	
13923.00	92.890	91.990	7312.44	5086.53	-1156.22	5091.75	40°25'01.548"N	104°56'41.288"W	2.27	LAST BHI MWD+IFR SURVEYS
13986.00	92.890	91.990	7309.27	5149.40	-1158.41	5154.63	40°25'01.527"N	104°56'40.475"W	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: ENCORE 8C-12HZ AWB <13986> Ref Wellpath: ENCORE 8C-12HZ 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	16.00	1867.00	1851.00	16.00	1826.55	0.00	0.00	-191.15	-264.25
9.625in Casing Surface	16.00	1857.00	1841.00	16.00	1817.01	0.00	0.00	-189.29	-261.89
8.5in Open Hole	1867.00	13986.00	12119.00	1826.55	7309.27	-191.15	-264.25	-1158.41	5154.63

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T5N-R68W LINES	42.00	-2462.99	4856.47	1655545.78	14677319.22	40°24'48.636"N	104°56'44.333"W	polygon
SEC.12-T5N-R68W LINES	42.00	-2462.99	4856.47	1655545.78	14677319.22	40°24'48.636"N	104°56'44.333"W	polygon
ENCORE 8C-12HZ BHL ON PLAT (1580'FNL & 50'FEL) REV-1	7275.00	-1155.04	5154.43	1655843.08	14678626.76	40°25'01.560"N	104°56'40.477"W	point
ENCORE 8C-12HZ LANDBOX	7275.00	0.00	0.00	1650690.24	14679779.19	40°25'12.979"N	104°57'47.117"W	polygon



# Actual Wellpath Report

ENCORE 8C-12HZ AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWB <13986>
Facility	SEC.12-T5N-R68W		

WELLPATH COMPOSITION - Ref Wellbore: ENCORE 8C-12HZ AWB <13986>    Ref Wellpath: ENCORE 8C-12HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1808.00	Custom_APC_ISCWSA REV 2 MWD	SCIENTIFIC DRILLING MWD SURVEYS <127-1808>	ENCORE 8C-12HZ AWB <13986>
1808.00	13923.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	BHI MWD+IFR SURVEYS 8 1/2" HOLE <1895-13923>	ENCORE 8C-12HZ AWB <13986>
13923.00	13986.00	Blind Drilling (std)	Projection to bit	ENCORE 8C-12HZ AWB <13986>

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 ENCORE 8C-12HZ (521'FNL & 280'FWL, SEC.12)
Area	COLORADO	Well	ENCORE 8C-12HZ
Field	LARIMER COUNTY	Wellbore	ENCORE 8C-12HZ AWB <13986>
Facility	SEC.12-T5N-R68W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
127.00	0.500	325.920	127.00	BEGIN MWD SURVEYS
1808.00	17.640	232.020	1770.29	TIE-ONTO MWD SURVEYS
1895.00	17.360	231.640	1853.27	BEGIN BHI MWD+IFR SURVEYS
7292.00	34.045	88.110	6910.29	SSPG
7341.00	37.681	87.511	6949.92	NBRR
7507.00	46.875	88.796	7072.24	N470_B_CK
7610.00	56.223	91.200	7136.33	N700_C_CK
7651.00	59.946	91.783	7158.00	ENTERED LAND BOX
7857.00	75.240	92.419	7234.73	FRHS
7974.00	84.392	90.573	7255.82	CDLL
8034.00	87.947	89.961	7259.65	LANDING POINT
13923.00	92.890	91.990	7312.44	LAST BHI MWD+IFR SURVEYS
13986.00	92.890	91.990	7309.27	PROJECTION TO BIT