

KERR-MCGEE OIL & GAS ONSHORE LP (WA)

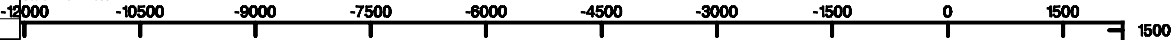
Location: COLORADO Slot: SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: MAB 15-11HZ
Facility: SEC.15-T1N-R66W Wellbore: MAB 15-11HZ PWB



Plot reference wellpath is MAB 15-11HZ PWP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Akita 522 (17) (RT)	North Reference: True north
Measured depths are referenced to Akita 522 (17) (RT)	Scale: True distance
Akita 522 (17) (RT) to Mean Sea Level: 5130 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)): 0 feet	Created by: painsr on 2019-05-15
Coordinates are in feet referenced to Slot	Database: WA, DEN, Anadarko, Delfi

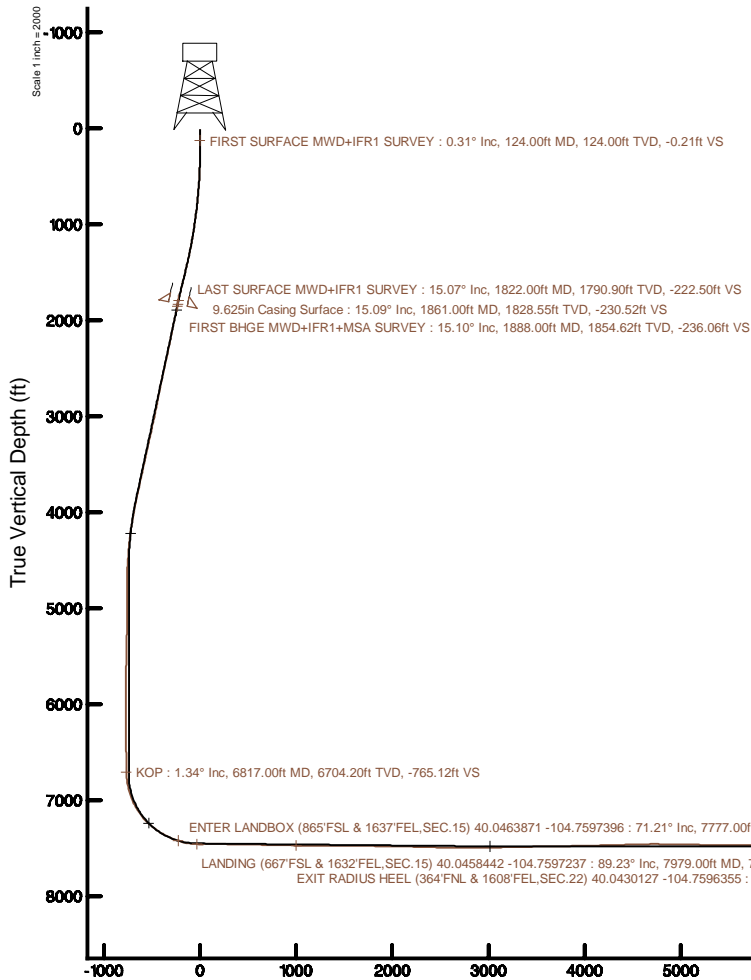
Scale 1 inch = 2500

Easting (ft)



SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)

KOP : 6704.20ft TVD, 764.63ft N, 564.54ft E
FIRST BHGE MWD+IFR1+MSA SURVEY : 1854.62ft TVD, 235.91ft N, 173.41ft E
ENTER LANDBOX (865'FSL & 1637'FEL,SEC.15) 40.0463871 -104.7597396 : 7421.20ft TVD, 227.03ft N, 534.54ft E
LAST SURFACE MWD+IFR1 SURVEY : 1790.90ft TVD, 222.36ft N, 162.84ft E
9.625in Casing Surface : 1828.55ft TVD, 230.38ft N, 169.06ft E
LANDING (667'FSL & 1632'FEL,SEC.15) 40.0458442 -104.7597237 : 7457.42ft TVD, 29.25ft N, 539.00ft E
FIRST SURFACE MWD+IFR1 SURVEY : 124.00ft TVD, 0.22ft N, 0.19ft W
EXIT RADIUS HEEL (364'FNL & 1608'FEL,SEC.22) 40.0430127 -104.7596355 : 7471.52ft TVD, 1002.22ft S, 563.73ft E



ENTER RADIUS TOE (1649'FSL & 1624'FEL,SEC.27) 40.0195213 -104.7596922 : 7467.45ft TVD, 9559.87ft S, 548.04ft E

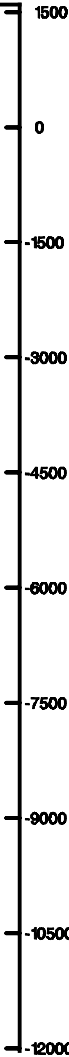
LAST BHGE MWD+IFR1+MSA SURVEY : 7465.72ft TVD, 10692.57ft S, 556.64ft E
PTB (471'FSL & 1615'FEL,SEC.27) 40.0162885 -104.7596597 : 7466.81ft TVD, 10737.55ft S, 557.16ft E

ENTER RADIUS TOE (1649'FSL & 1624'FEL,SEC.27) 40.0195213 -104.7596922 : 91.31° Inc, 17572.00ft MD, 7467.45ft TVD, 9559.39ft VS
LAST BHGE MWD+IFR1+MSA SURVEY : 88.61° Inc, 18705.00ft MD, 7465.72ft TVD, 10692.08ft VS
PTB (471'FSL & 1615'FEL,SEC.27) 40.0162885 -104.7596597 : 88.61° Inc, 18750.00ft MD, 7466.81ft TVD, 10737.06ft VS

Vertical Section (ft)

Azimuth 180.05° with reference 0.00 N, 0.00 E

Northing (ft)



Scale 1 inch = 2000

Actual Wellpath Report

MAB 15-11HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Painsetr
Scale	0.999605	Report Generated	5/15/2019 at 1:28:51 PM
Convergence at slot	0.15° East	Database/Source file	WA_DEN_Anadarko_Defn/MAB_15-11HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-629.36	1679.70	1707122.57	14543487.29	40°02'44.750"N	104°45'41.936"W
Facility Reference Pt			1705441.90	14544112.02	40°02'50.970"N	104°46'03.534"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Akita 522 (17') (RT) to Facility Vertical Datum	5130.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	5130.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#29 MAB 15-11HZ (638'FSL & 2171'FEL,SEC.15))	5130.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.05°

Actual Wellpath Report

MAB 15-11HZ AWP

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	318.000	0.00	0.00	0.00	0.00	1707122.57	14543487.29	40°02'44.750"N	104°45'41.936"W	0.00	
17.00	0.000	318.000	17.00	0.00	0.00	0.00	1707122.57	14543487.29	40°02'44.750"N	104°45'41.936"W	0.00	
124.00	0.310	318.000	124.00	-0.21	0.22	-0.19	1707122.38	14543487.51	40°02'44.752"N	104°45'41.938"W	0.29	FIRST SURFACE MWD+IFR1 SURVEY
218.00	0.350	261.050	218.00	-0.36	0.36	-0.65	1707121.92	14543487.65	40°02'44.754"N	104°45'41.944"W	0.34	
314.00	0.570	30.860	314.00	-0.72	0.72	-0.69	1707121.88	14543488.01	40°02'44.757"N	104°45'41.945"W	0.87	
409.00	1.980	37.630	408.97	-2.43	2.43	0.55	1707123.12	14543489.72	40°02'44.774"N	104°45'41.929"W	1.49	
504.00	4.220	37.980	503.83	-6.49	6.48	3.71	1707126.26	14543493.78	40°02'44.814"N	104°45'41.888"W	2.36	
599.00	5.450	33.500	598.49	-13.01	13.00	8.35	1707130.88	14543500.31	40°02'44.878"N	104°45'41.829"W	1.35	
694.00	6.200	36.490	693.00	-20.90	20.89	13.89	1707136.40	14543508.21	40°02'44.956"N	104°45'41.757"W	0.85	
788.00	7.210	37.100	786.35	-29.69	29.67	20.46	1707142.95	14543517.01	40°02'45.043"N	104°45'41.673"W	1.08	
883.00	9.010	37.010	880.40	-40.40	40.37	28.54	1707150.99	14543527.72	40°02'45.149"N	104°45'41.569"W	1.89	
979.00	10.020	37.370	975.08	-53.04	53.01	38.13	1707160.55	14543540.38	40°02'45.274"N	104°45'41.446"W	1.05	
1074.00	11.510	38.600	1068.40	-67.03	66.99	49.06	1707171.44	14543554.38	40°02'45.412"N	104°45'41.305"W	1.59	
1169.00	13.010	37.890	1161.23	-82.89	82.83	61.54	1707183.87	14543570.26	40°02'45.569"N	104°45'41.145"W	1.59	
1264.00	13.400	36.570	1253.72	-100.18	100.11	74.67	1707196.95	14543587.57	40°02'45.739"N	104°45'40.976"W	0.52	
1360.00	14.900	36.400	1346.80	-119.06	118.98	88.62	1707210.84	14543606.47	40°02'45.926"N	104°45'40.796"W	1.56	
1455.00	15.510	34.550	1438.48	-139.37	139.28	103.08	1707225.23	14543626.79	40°02'46.126"N	104°45'40.611"W	0.82	
1549.00	16.570	34.030	1528.82	-160.84	160.74	117.70	1707239.80	14543648.28	40°02'46.338"N	104°45'40.423"W	1.14	
1644.00	16.700	34.990	1619.84	-183.26	183.15	133.11	1707255.14	14543670.72	40°02'46.560"N	104°45'40.224"W	0.32	
1739.00	16.170	38.160	1710.96	-204.86	204.73	149.11	1707271.08	14543692.34	40°02'46.773"N	104°45'40.019"W	1.10	
1822.00	15.070	37.630	1790.90	-222.50	222.36	162.84	1707284.75	14543710.00	40°02'46.947"N	104°45'39.842"W	1.34	LAST SURFACE MWD+IFR1 SURVEY
1888.00	15.100	38.270	1854.62	-236.06	235.91	173.41	1707295.28	14543723.57	40°02'47.081"N	104°45'39.706"W	0.26	FIRST BHGE MWD+IFR1+MSA SURVEY
1976.00	15.170	37.520	1939.57	-254.20	254.04	187.52	1707309.33	14543741.73	40°02'47.260"N	104°45'39.525"W	0.24	
2063.00	14.830	35.930	2023.60	-272.26	272.08	200.98	1707322.75	14543759.80	40°02'47.439"N	104°45'39.352"W	0.61	
2150.00	15.350	43.120	2107.61	-289.69	289.51	215.39	1707337.10	14543777.26	40°02'47.611"N	104°45'39.166"W	2.23	
2237.00	15.020	40.630	2191.58	-306.67	306.47	230.60	1707352.26	14543794.25	40°02'47.779"N	104°45'38.971"W	0.84	
2325.00	14.640	38.840	2276.64	-324.00	323.78	245.00	1707366.61	14543811.60	40°02'47.950"N	104°45'38.786"W	0.68	
2412.00	16.170	41.530	2360.52	-341.64	341.42	259.93	1707381.48	14543829.27	40°02'48.124"N	104°45'38.594"W	1.94	
2500.00	15.790	40.230	2445.12	-359.97	359.73	275.79	1707397.29	14543847.62	40°02'48.305"N	104°45'38.390"W	0.59	
2588.00	15.430	38.420	2529.87	-378.30	378.04	290.79	1707412.24	14543865.96	40°02'48.486"N	104°45'38.197"W	0.69	
2675.00	14.480	36.770	2613.92	-396.09	395.82	304.50	1707425.89	14543883.77	40°02'48.662"N	104°45'38.021"W	1.20	
2763.00	14.150	34.950	2699.19	-413.73	413.45	317.24	1707438.58	14543901.43	40°02'48.836"N	104°45'37.857"W	0.63	
2851.00	14.460	40.660	2784.47	-430.89	430.61	330.57	1707451.85	14543918.61	40°02'49.005"N	104°45'37.685"W	1.64	
2939.00	13.700	39.310	2869.82	-447.30	447.00	344.33	1707465.57	14543935.04	40°02'49.167"N	104°45'37.508"W	0.94	
3026.00	14.570	39.740	2954.19	-463.70	463.39	357.85	1707479.04	14543951.45	40°02'49.329"N	104°45'37.335"W	1.01	
3114.00	15.890	38.400	3039.10	-481.67	481.34	372.41	1707493.55	14543969.44	40°02'49.507"N	104°45'37.147"W	1.55	
3201.00	15.430	36.560	3122.87	-500.31	499.97	386.70	1707507.78	14543988.10	40°02'49.691"N	104°45'36.964"W	0.78	
3288.00	14.810	34.310	3206.86	-518.80	518.45	399.86	1707520.89	14544006.61	40°02'49.873"N	104°45'36.794"W	0.98	
3376.00	15.530	36.080	3291.79	-537.63	537.27	413.14	1707534.11	14544025.45	40°02'50.059"N	104°45'36.624"W	0.97	
3463.00	14.390	34.470	3375.84	-555.96	555.59	426.12	1707547.03	14544043.80	40°02'50.240"N	104°45'36.457"W	1.39	
3551.00	15.180	34.280	3460.93	-574.51	574.13	438.80	1707559.66	14544062.36	40°02'50.424"N	104°45'36.294"W	0.90	
3638.00	14.050	30.620	3545.11	-593.02	592.63	450.59	1707571.40	14544080.89	40°02'50.606"N	104°45'36.142"W	1.68	
3726.00	14.540	35.200	3630.39	-611.25	610.85	462.40	1707583.15	14544099.13	40°02'50.787"N	104°45'35.990"W	1.40	
3813.00	14.610	34.120	3714.59	-629.27	628.86	474.85	1707595.55	14544117.17	40°02'50.964"N	104°45'35.830"W	0.32	
3900.00	14.990	35.290	3798.70	-647.55	647.12	487.51	1707608.15	14544135.46	40°02'51.145"N	104°45'35.667"W	0.56	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3988.00	13.500	31.650	3884.00	-665.59	665.16	499.47	1707620.06	14544153.52	40°02'51.323"N	104°45'35.514"W	1.97	
4075.00	12.300	29.120	3968.80	-682.34	681.90	509.31	1707629.85	14544170.28	40°02'51.489"N	104°45'35.387"W	1.52	
4163.00	10.870	26.210	4055.01	-697.98	697.53	517.54	1707638.04	14544185.93	40°02'51.643"N	104°45'35.281"W	1.75	
4250.00	9.560	24.260	4140.62	-711.94	711.48	524.13	1707644.59	14544199.89	40°02'51.781"N	104°45'35.196"W	1.56	
4337.00	8.380	29.790	4226.56	-724.03	723.57	530.25	1707650.67	14544211.99	40°02'51.900"N	104°45'35.118"W	1.68	
4425.00	7.420	27.160	4313.72	-734.66	734.19	536.03	1707656.42	14544222.62	40°02'52.005"N	104°45'35.043"W	1.17	
4513.00	5.360	38.590	4401.18	-742.93	742.46	541.19	1707661.55	14544230.90	40°02'52.087"N	104°45'34.977"W	2.74	
4601.00	5.190	35.750	4488.80	-749.38	748.90	546.07	1707666.42	14544237.36	40°02'52.151"N	104°45'34.914"W	0.35	
4688.00	3.210	40.790	4575.57	-754.42	753.94	549.97	1707670.30	14544242.40	40°02'52.201"N	104°45'34.864"W	2.31	
4776.00	0.920	70.470	4663.51	-756.52	756.04	552.24	1707672.57	14544244.51	40°02'52.221"N	104°45'34.835"W	2.79	
4864.00	0.850	76.690	4751.49	-756.91	756.43	553.54	1707673.87	14544244.90	40°02'52.225"N	104°45'34.818"W	0.13	
4951.00	0.650	58.620	4838.49	-757.32	756.83	554.59	1707674.92	14544245.31	40°02'52.229"N	104°45'34.805"W	0.35	
5064.00	0.610	65.500	4951.48	-757.90	757.42	555.69	1707676.01	14544245.89	40°02'52.235"N	104°45'34.791"W	0.08	
5151.00	0.520	34.940	5038.48	-758.42	757.93	556.33	1707676.65	14544246.41	40°02'52.240"N	104°45'34.782"W	0.36	
5239.00	0.660	36.630	5126.47	-759.15	758.67	556.86	1707677.18	14544247.15	40°02'52.247"N	104°45'34.775"W	0.16	
5414.00	1.510	49.190	5301.44	-761.47	760.98	559.21	1707679.52	14544249.47	40°02'52.270"N	104°45'34.745"W	0.50	
5502.00	2.240	48.500	5389.39	-763.37	762.88	561.38	1707681.68	14544251.37	40°02'52.289"N	104°45'34.717"W	0.83	
5589.00	1.020	333.930	5476.36	-765.19	764.70	562.31	1707682.61	14544253.19	40°02'52.307"N	104°45'34.705"W	2.53	
5677.00	1.280	344.300	5564.34	-766.84	766.35	561.70	1707682.00	14544254.84	40°02'52.323"N	104°45'34.713"W	0.38	
5765.00	1.240	357.550	5652.32	-768.74	768.25	561.39	1707681.68	14544256.74	40°02'52.342"N	104°45'34.717"W	0.33	
5852.00	1.220	258.990	5739.31	-769.50	769.01	560.44	1707680.73	14544257.50	40°02'52.350"N	104°45'34.729"W	2.14	
5940.00	1.000	259.370	5827.29	-769.18	768.69	558.77	1707679.06	14544257.17	40°02'52.346"N	104°45'34.751"W	0.25	
6027.00	0.530	248.270	5914.29	-768.89	768.40	557.65	1707677.94	14544256.88	40°02'52.343"N	104°45'34.765"W	0.56	
6115.00	0.260	232.090	6002.28	-768.62	768.13	557.11	1707677.41	14544256.61	40°02'52.341"N	104°45'34.772"W	0.33	
6202.00	0.250	126.230	6089.28	-768.38	767.90	557.11	1707677.41	14544256.37	40°02'52.338"N	104°45'34.772"W	0.47	
6289.00	0.370	90.150	6176.28	-768.27	767.78	557.54	1707677.84	14544256.26	40°02'52.337"N	104°45'34.767"W	0.26	
6376.00	0.910	64.780	6263.28	-768.56	768.08	558.45	1707678.74	14544256.56	40°02'52.340"N	104°45'34.755"W	0.69	
6463.00	1.310	69.910	6350.26	-769.20	768.71	560.01	1707680.30	14544257.20	40°02'52.347"N	104°45'34.735"W	0.47	
6551.00	1.240	151.830	6438.24	-768.71	768.22	561.40	1707681.70	14544256.71	40°02'52.342"N	104°45'34.717"W	1.90	
6639.00	1.040	144.110	6526.23	-767.22	766.73	562.32	1707682.62	14544255.22	40°02'52.327"N	104°45'34.705"W	0.29	
6726.00	0.850	123.510	6613.22	-766.23	765.74	563.32	1707683.62	14544254.23	40°02'52.317"N	104°45'34.692"W	0.44	
6814.00	1.220	137.970	6701.20	-765.17	764.68	564.49	1707684.79	14544253.18	40°02'52.307"N	104°45'34.677"W	0.51	
6817.00†	1.342	143.783	6704.20	-765.12	764.63	564.54	1707684.84	14544253.13	40°02'52.306"N	104°45'34.677"W	5.93	KOP
6902.00	6.080	178.960	6789.00	-759.81	759.32	565.21	1707685.52	14544247.82	40°02'52.254"N	104°45'34.668"W	5.93	
6989.00	14.520	186.530	6874.53	-744.34	743.85	564.05	1707684.40	14544232.36	40°02'52.101"N	104°45'34.683"W	9.80	
7077.00	19.820	187.130	6958.58	-718.56	718.07	560.94	1707681.37	14544206.58	40°02'51.846"N	104°45'34.723"W	6.03	
7164.00	25.940	184.620	7038.70	-684.92	684.43	557.57	1707678.09	14544172.95	40°02'51.514"N	104°45'34.766"W	7.12	
7252.00	34.370	181.020	7114.72	-640.82	640.33	555.58	1707676.21	14544128.85	40°02'51.078"N	104°45'34.792"W	9.79	
7339.00	39.560	183.020	7184.22	-588.56	588.07	553.68	1707674.46	14544076.61	40°02'50.561"N	104°45'34.817"W	6.12	
7426.00	47.390	182.640	7247.30	-528.81	528.33	550.74	1707671.68	14544016.89	40°02'49.971"N	104°45'34.854"W	9.00	
7514.00	53.710	183.290	7303.19	-460.99	460.51	547.21	1707668.33	14543949.08	40°02'49.301"N	104°45'34.900"W	7.20	
7601.00	60.360	183.970	7350.50	-388.18	387.71	542.57	1707663.89	14543876.29	40°02'48.581"N	104°45'34.959"W	7.67	
7689.00	66.790	183.220	7389.64	-309.56	309.10	537.65	1707659.18	14543797.70	40°02'47.805"N	104°45'35.023"W	7.35	
7776.00	71.130	181.170	7420.87	-228.45	227.98	534.56	1707656.31	14543716.61	40°02'47.003"N	104°45'35.062"W	5.45	
7777.00†	71.205	181.136	7421.20	-227.50	227.03	534.54	1707656.29	14543715.67	40°02'46.994"N	104°45'35.063"W	8.21	ENTER LANDBOX (865'FSL & 1637'FEL,SEC.15) 40.0463871 -104.7597396

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 stations)

† = interpolated/extrapolated station

MD (ft)	Inclination [°]	Azimuth [°]	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	DLS [°/100ft]	Comments
7864.00	77.790	178.270	7444.44	-143.72	143.26	535.01	1707656.99	14543631.92	40°02'46.166"N	104°45'35.057"W	8.21	
7979.00	89.230	177.730	7457.42	-29.72	29.25	539.00	1707661.28	14543517.98	40°02'45.039"N	104°45'35.005"W	9.96	LANDING (667'FSL & 1632'FEL,SEC.15) 40.0458442 -104.7597237
8067.00	91.170	177.200	7457.11	58.18	-58.66	542.89	1707665.40	14543430.11	40°02'44.170"N	104°45'34.955"W	2.29	
8154.00	90.030	178.070	7456.20	145.10	-145.58	546.48	1707669.22	14543343.24	40°02'43.311"N	104°45'34.909"W	1.65	
8242.00	89.200	179.230	7456.79	233.07	-233.55	548.55	1707671.53	14543255.31	40°02'42.442"N	104°45'34.883"W	1.62	
8329.00	89.080	178.920	7458.10	320.05	-320.53	549.96	1707673.17	14543168.37	40°02'41.582"N	104°45'34.865"W	0.38	
8416.00	88.800	179.250	7459.71	407.02	-407.50	551.35	1707674.79	14543081.43	40°02'40.723"N	104°45'34.847"W	0.50	
8504.00	88.340	178.740	7461.90	494.97	-495.46	552.89	1707676.57	14542993.51	40°02'39.854"N	104°45'34.827"W	0.78	
8591.00	89.540	179.710	7463.51	581.95	-582.43	554.07	1707677.97	14542906.58	40°02'38.994"N	104°45'34.812"W	1.77	
8679.00	89.350	179.210	7464.36	669.94	-670.42	554.89	1707679.04	14542818.62	40°02'38.125"N	104°45'34.801"W	0.61	
8766.00	89.170	178.590	7465.49	756.91	-757.40	556.56	1707680.94	14542731.69	40°02'37.265"N	104°45'34.780"W	0.74	
8852.00	88.580	178.100	7467.18	842.86	-843.35	559.05	1707683.65	14542645.78	40°02'36.416"N	104°45'34.748"W	0.89	
8940.00	88.180	178.130	7469.66	930.77	-931.26	561.94	1707686.78	14542557.91	40°02'35.547"N	104°45'34.711"W	0.46	
9011.00†	88.825	178.977	7471.52	1001.72	-1002.22	563.73	1707688.76	14542486.99	40°02'34.846"N	104°45'34.688"W	1.50	EXIT RADIUS HEEL (364'FNL & 1608'FEL,SEC.22) 40.0430127 -104.7596355
9028.00	88.980	179.180	7471.85	1018.72	-1019.21	564.01	1707689.08	14542470.00	40°02'34.678"N	104°45'34.684"W	1.50	
9115.00	88.650	179.150	7473.64	1105.69	-1106.18	565.27	1707690.58	14542383.07	40°02'33.818"N	104°45'34.668"W	0.38	
9203.00	88.340	180.390	7475.96	1193.66	-1194.15	565.63	1707691.17	14542295.13	40°02'32.949"N	104°45'34.663"W	1.45	
9290.00	90.310	180.750	7476.98	1280.64	-1281.14	564.76	1707690.54	14542208.18	40°02'32.089"N	104°45'34.675"W	2.30	
9377.00	90.340	180.650	7476.49	1367.63	-1368.13	563.70	1707689.71	14542121.22	40°02'31.230"N	104°45'34.688"W	0.12	
9465.00	90.890	181.300	7475.54	1455.62	-1456.11	562.20	1707688.44	14542033.27	40°02'30.360"N	104°45'34.708"W	0.97	
9552.00	90.090	181.810	7474.80	1542.58	-1543.07	559.84	1707686.32	14541946.34	40°02'29.501"N	104°45'34.738"W	1.09	
9640.00	90.650	182.210	7474.23	1630.53	-1631.02	556.75	1707683.47	14541858.42	40°02'28.632"N	104°45'34.778"W	0.78	
9727.00	89.010	182.650	7474.49	1717.45	-1717.93	553.07	1707680.01	14541771.53	40°02'27.773"N	104°45'34.825"W	1.95	
9814.00	87.600	180.940	7477.06	1804.37	-1804.85	550.34	1707677.52	14541684.64	40°02'26.914"N	104°45'34.860"W	2.55	
9902.00	87.290	180.650	7480.98	1892.27	-1892.75	549.12	1707676.54	14541596.77	40°02'26.045"N	104°45'34.876"W	0.48	
9990.00	89.450	179.840	7483.49	1980.23	-1980.71	548.75	1707676.40	14541508.85	40°02'25.176"N	104°45'34.881"W	2.62	
10077.00	90.340	180.060	7483.65	2067.23	-2067.71	548.82	1707676.71	14541421.88	40°02'24.316"N	104°45'34.880"W	1.05	
10164.00	89.780	179.700	7483.56	2154.23	-2154.71	549.00	1707677.12	14541334.92	40°02'23.457"N	104°45'34.877"W	0.77	
10252.00	88.950	180.800	7484.53	2242.22	-2242.70	548.62	1707676.97	14541246.96	40°02'22.587"N	104°45'34.882"W	1.57	
10339.00	87.900	180.860	7486.92	2329.18	-2329.66	547.36	1707675.95	14541160.03	40°02'21.728"N	104°45'34.899"W	1.21	
10427.00	88.710	180.950	7489.53	2417.13	-2417.61	545.97	1707674.79	14541072.12	40°02'20.859"N	104°45'34.916"W	0.93	
10514.00	87.930	181.780	7492.08	2504.07	-2504.54	543.90	1707672.95	14540985.21	40°02'19.999"N	104°45'34.943"W	1.31	
10601.00	89.170	180.960	7494.28	2591.01	-2591.49	541.82	1707671.11	14540898.29	40°02'19.140"N	104°45'34.970"W	1.71	
10689.00	90.740	180.640	7494.35	2679.00	-2679.48	540.59	1707670.12	14540810.34	40°02'18.271"N	104°45'34.986"W	1.82	
10776.00	90.400	180.290	7493.48	2766.00	-2766.47	539.89	1707669.64	14540723.38	40°02'17.411"N	104°45'34.995"W	0.56	
10864.00	90.220	180.230	7493.01	2853.99	-2854.47	539.49	1707669.48	14540635.41	40°02'16.541"N	104°45'35.000"W	0.22	
10951.00	90.770	180.010	7492.25	2940.99	-2941.46	539.30	1707669.53	14540548.45	40°02'15.682"N	104°45'35.002"W	0.68	
11039.00	90.340	179.460	7491.40	3028.98	-3029.46	539.71	1707670.17	14540460.49	40°02'14.812"N	104°45'34.997"W	0.79	
11127.00	90.250	180.120	7490.95	3116.98	-3117.45	540.03	1707670.73	14540372.53	40°02'13.942"N	104°45'34.993"W	0.76	
11214.00	91.170	181.520	7489.87	3203.96	-3204.44	538.79	1707669.72	14540285.58	40°02'13.083"N	104°45'35.009"W	1.93	
11302.00	91.450	181.460	7487.86	3291.91	-3292.38	536.50	1707667.67	14540197.66	40°02'12.214"N	104°45'35.038"W	0.33	
11389.00	91.420	180.610	7485.68	3378.87	-3379.34	534.93	1707666.33	14540110.74	40°02'11.354"N	104°45'35.059"W	0.98	
11477.00	90.890	180.740	7483.91	3466.85	-3467.32	533.89	1707665.53	14540022.79	40°02'10.485"N	104°45'35.072"W	0.62	
11564.00	90.490	179.930	7482.86	3553.84	-3554.31	533.38	1707665.25	14539935.84	40°02'09.625"N	104°45'35.079"W	1.04	
11652.00	90.250	179.880	7482.29	3641.84	-3642.31	533.53	1707665.63	14539847.87	40°02'08.756"N	104°45'35.077"W	0.28	

Actual Wellpath Report

MAB 15-11HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11739.00	91.630	178.050	7480.86	3728.81	-3729.27	535.10	1707667.44	14539760.94	40°02'07.896"N	104°45'35.057"W	2.63	
11827.00	91.600	178.070	7478.38	3816.72	-3817.19	538.08	1707670.65	14539673.07	40°02'07.028"N	104°45'35.018"W	0.04	
11914.00	91.420	177.830	7476.09	3903.63	-3904.10	541.19	1707673.99	14539586.20	40°02'06.169"N	104°45'34.978"W	0.34	
12002.00	91.110	177.820	7474.15	3991.54	-3992.02	544.53	1707677.56	14539498.33	40°02'05.300"N	104°45'34.935"W	0.35	
12090.00	90.860	177.460	7472.63	4079.45	-4079.93	548.15	1707681.42	14539410.46	40°02'04.431"N	104°45'34.889"W	0.50	
12177.00	91.880	178.230	7470.55	4166.36	-4166.84	551.42	1707684.92	14539323.60	40°02'03.572"N	104°45'34.847"W	1.47	
12264.00	91.450	177.400	7468.03	4253.25	-4253.74	554.74	1707688.47	14539236.74	40°02'02.713"N	104°45'34.804"W	1.07	
12352.00	91.080	176.800	7466.08	4341.12	-4341.61	559.19	1707693.15	14539148.92	40°02'01.845"N	104°45'34.747"W	0.80	
12440.00	91.600	179.340	7464.02	4429.03	-4429.52	562.15	1707696.35	14539061.05	40°02'00.976"N	104°45'34.709"W	2.95	
12527.00	92.310	178.770	7461.06	4515.97	-4516.46	563.59	1707698.02	14538974.15	40°02'00.117"N	104°45'34.691"W	1.05	
12614.00	90.860	179.730	7458.65	4602.92	-4603.42	564.72	1707699.39	14538887.23	40°01'59.258"N	104°45'34.676"W	2.00	
12702.00	90.890	179.640	7457.31	4690.91	-4691.41	565.21	1707700.11	14538799.28	40°01'58.388"N	104°45'34.670"W	0.11	
12790.00	88.890	180.980	7457.48	4778.90	-4779.40	564.73	1707699.87	14538711.32	40°01'57.519"N	104°45'34.676"W	2.74	
12878.00	88.460	181.390	7459.51	4866.86	-4867.35	562.91	1707698.28	14538623.39	40°01'56.650"N	104°45'34.699"W	0.68	
12965.00	89.200	180.890	7461.29	4953.83	-4954.32	561.18	1707696.79	14538536.46	40°01'55.790"N	104°45'34.722"W	1.03	
13053.00	89.230	180.660	7462.49	5041.81	-5042.30	559.99	1707695.83	14538448.51	40°01'54.921"N	104°45'34.737"W	0.26	
13140.00	89.570	179.770	7463.40	5128.81	-5129.30	559.67	1707695.74	14538361.55	40°01'54.061"N	104°45'34.741"W	1.10	
13228.00	88.920	180.040	7464.56	5216.80	-5217.29	559.81	1707696.12	14538273.59	40°01'53.191"N	104°45'34.739"W	0.80	
13315.00	89.600	180.750	7465.69	5303.79	-5304.28	559.21	1707695.75	14538186.64	40°01'52.332"N	104°45'34.747"W	1.13	
13403.00	89.570	180.390	7466.32	5391.78	-5392.27	558.34	1707695.11	14538098.68	40°01'51.462"N	104°45'34.758"W	0.41	
13490.00	89.780	180.520	7466.82	5478.78	-5479.27	557.65	1707694.65	14538011.71	40°01'50.602"N	104°45'34.767"W	0.28	
13577.00	89.570	180.230	7467.31	5565.77	-5566.26	557.08	1707694.32	14537924.75	40°01'49.743"N	104°45'34.775"W	0.41	
13665.00	89.350	179.850	7468.14	5653.77	-5654.26	557.02	1707694.49	14537836.79	40°01'48.873"N	104°45'34.775"W	0.50	
13752.00	90.800	179.450	7468.03	5740.77	-5741.25	557.55	1707695.26	14537749.83	40°01'48.013"N	104°45'34.769"W	1.73	
13840.00	90.950	179.040	7466.68	5828.75	-5829.24	558.71	1707696.65	14537661.89	40°01'47.144"N	104°45'34.754"W	0.50	
13927.00	91.110	177.810	7465.12	5915.70	-5916.19	561.10	1707699.27	14537574.98	40°01'46.285"N	104°45'34.723"W	1.43	
14015.00	90.460	179.560	7463.91	6003.66	-6004.15	563.12	1707701.53	14537487.05	40°01'45.415"N	104°45'34.697"W	2.12	
14102.00	90.280	179.370	7463.35	6090.65	-6091.15	563.93	1707702.57	14537400.09	40°01'44.556"N	104°45'34.687"W	0.30	
14190.00	90.890	179.030	7462.45	6178.64	-6179.13	565.16	1707704.04	14537312.15	40°01'43.686"N	104°45'34.671"W	0.79	
14277.00	89.750	179.490	7461.97	6265.63	-6266.12	566.28	1707705.39	14537225.20	40°01'42.827"N	104°45'34.656"W	1.41	
14364.00	90.120	179.690	7462.07	6352.62	-6353.12	566.90	1707706.25	14537138.23	40°01'41.967"N	104°45'34.648"W	0.48	
14452.00	89.850	179.800	7462.09	6440.62	-6441.12	567.29	1707706.87	14537050.27	40°01'41.097"N	104°45'34.643"W	0.33	
14540.00	89.630	178.940	7462.49	6528.61	-6529.11	568.26	1707708.08	14536962.32	40°01'40.228"N	104°45'34.631"W	1.01	
14627.00	90.150	181.090	7462.66	6615.61	-6616.11	568.24	1707708.29	14536875.36	40°01'39.368"N	104°45'34.631"W	2.54	
14715.00	89.660	181.380	7462.80	6703.59	-6704.09	566.34	1707706.63	14536787.41	40°01'38.498"N	104°45'34.656"W	0.65	
14802.00	89.380	180.420	7463.53	6790.57	-6791.07	564.98	1707705.49	14536700.45	40°01'37.639"N	104°45'34.673"W	1.15	
14889.00	89.480	180.890	7464.40	6877.57	-6878.06	563.98	1707704.73	14536613.50	40°01'36.779"N	104°45'34.686"W	0.55	
14978.00	89.450	179.800	7465.23	6966.56	-6967.05	563.45	1707704.43	14536524.54	40°01'35.900"N	104°45'34.693"W	1.23	
15065.00	89.010	179.830	7466.40	7053.55	-7054.04	563.73	1707704.95	14536437.58	40°01'35.040"N	104°45'34.689"W	0.51	
15152.00	89.940	182.050	7467.19	7140.53	-7141.02	562.30	1707703.75	14536350.63	40°01'34.180"N	104°45'34.708"W	2.77	
15240.00	90.030	181.350	7467.22	7228.49	-7228.98	559.69	1707701.38	14536262.70	40°01'33.311"N	104°45'34.741"W	0.80	
15327.00	90.550	181.360	7466.78	7315.47	-7315.96	557.63	1707699.55	14536175.76	40°01'32.452"N	104°45'34.768"W	0.60	
15415.00	90.120	180.950	7466.26	7403.45	-7403.94	555.86	1707698.02	14536087.81	40°01'31.582"N	104°45'34.791"W	0.68	
15502.00	89.910	180.150	7466.24	7490.45	-7490.93	555.02	1707697.41	14536000.84	40°01'30.723"N	104°45'34.801"W	0.95	
15590.00	89.750	179.700	7466.50	7578.45	-7578.93	555.14	1707697.77	14535912.88	40°01'29.853"N	104°45'34.800"W	0.54	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15677.00	89.820	178.900	7466.83	7665.44	-7665.92	556.20	1707699.06	14535825.93	40°01'28.993"N	104°45'34.786"W	0.92	
15765.00	90.280	178.280	7466.75	7753.41	-7753.90	558.37	1707701.46	14535737.99	40°01'28.124"N	104°45'34.759"W	0.88	
15852.00	90.400	177.530	7466.23	7840.34	-7840.84	561.55	1707704.87	14535651.10	40°01'27.265"N	104°45'34.718"W	0.87	
15940.00	90.460	176.710	7465.57	7928.23	-7928.72	565.97	1707709.53	14535563.26	40°01'26.396"N	104°45'34.661"W	0.93	
16027.00	90.310	179.610	7464.99	8015.17	-8015.67	568.76	1707712.55	14535476.36	40°01'25.537"N	104°45'34.625"W	3.34	
16114.00	91.140	182.500	7463.89	8102.14	-8102.64	567.16	1707711.18	14535389.42	40°01'24.678"N	104°45'34.646"W	3.46	
16202.00	91.050	182.330	7462.20	8190.05	-8190.54	563.45	1707707.71	14535301.54	40°01'23.809"N	104°45'34.693"W	0.22	
16289.00	91.690	182.150	7460.12	8276.96	-8277.45	560.05	1707704.55	14535214.66	40°01'22.950"N	104°45'34.737"W	0.76	
16377.00	91.910	182.000	7457.36	8364.86	-8365.35	556.87	1707701.60	14535126.79	40°01'22.081"N	104°45'34.778"W	0.30	
16465.00	92.340	181.600	7454.10	8452.76	-8453.24	554.11	1707699.07	14535038.92	40°01'21.213"N	104°45'34.814"W	0.67	
16552.00	90.920	180.810	7451.62	8539.70	-8540.19	552.28	1707697.48	14534952.00	40°01'20.354"N	104°45'34.837"W	1.87	
16639.00	91.020	180.670	7450.15	8626.68	-8627.17	551.15	1707696.59	14534865.06	40°01'19.494"N	104°45'34.852"W	0.20	
16726.00	88.770	180.760	7450.31	8713.67	-8714.15	550.07	1707695.73	14534778.10	40°01'18.634"N	104°45'34.865"W	2.59	
16814.00	88.640	180.690	7452.30	8801.64	-8802.12	548.95	1707694.86	14534690.16	40°01'17.765"N	104°45'34.880"W	0.17	
16901.00	88.710	180.510	7454.31	8888.61	-8889.10	548.04	1707694.18	14534603.22	40°01'16.906"N	104°45'34.892"W	0.22	
16989.00	88.670	180.230	7456.32	8976.59	-8977.07	547.48	1707693.85	14534515.28	40°01'16.036"N	104°45'34.899"W	0.32	
17076.00	88.220	179.590	7458.68	9063.56	-9064.04	547.61	1707694.22	14534428.35	40°01'15.177"N	104°45'34.897"W	0.90	
17164.00	87.780	179.410	7461.75	9151.50	-9151.98	548.38	1707695.22	14534340.44	40°01'14.308"N	104°45'34.887"W	0.54	
17251.00	88.770	180.550	7464.37	9238.46	-9238.94	548.41	1707695.48	14534253.52	40°01'13.448"N	104°45'34.887"W	1.74	
17339.00	88.740	180.260	7466.29	9326.43	-9326.92	547.79	1707695.10	14534165.58	40°01'12.579"N	104°45'34.895"W	0.33	
17427.00	88.490	179.550	7468.41	9414.41	-9414.89	547.93	1707695.48	14534077.64	40°01'11.710"N	104°45'34.893"W	0.86	
17514.00	91.140	180.080	7468.69	9501.40	-9501.88	548.21	1707695.99	14533990.68	40°01'10.850"N	104°45'34.890"W	3.11	
17572.00†	91.307	180.260	7467.45	9559.39	-9559.87	548.04	1707695.97	14533932.72	40°01'10.277"N	104°45'34.892"W	0.42	ENTER RADIUS TOE (1649'FSL & 1624'FEL,SEC.27) 40.0195213 -104.7596922
17601.00	91.390	180.350	7466.77	9588.38	-9588.86	547.89	1707695.90	14533903.74	40°01'09.990"N	104°45'34.894"W	0.42	
17689.00	91.570	179.310	7464.50	9676.35	-9676.83	548.15	1707696.39	14533815.81	40°01'09.121"N	104°45'34.890"W	1.20	
17776.00	91.450	178.850	7462.21	9763.30	-9763.79	549.55	1707698.02	14533728.89	40°01'08.262"N	104°45'34.872"W	0.55	
17864.00	91.570	179.040	7459.89	9851.26	-9851.74	551.17	1707699.88	14533640.97	40°01'07.392"N	104°45'34.852"W	0.26	
17951.00	91.910	178.410	7457.25	9938.19	-9938.68	553.10	1707702.04	14533554.07	40°01'06.533"N	104°45'34.827"W	0.82	
18039.00	89.380	179.860	7456.26	10026.17	-10026.65	554.43	1707703.61	14533466.14	40°01'05.664"N	104°45'34.810"W	3.31	
18126.00	89.480	179.950	7457.12	10113.16	-10113.65	554.57	1707703.98	14533379.18	40°01'04.804"N	104°45'34.808"W	0.15	
18213.00	89.630	180.070	7457.80	10200.16	-10200.65	554.56	1707704.20	14533292.22	40°01'03.944"N	104°45'34.808"W	0.22	
18301.00	89.040	179.580	7458.82	10288.15	-10288.64	554.83	1707704.70	14533204.26	40°01'03.075"N	104°45'34.805"W	0.87	
18388.00	89.540	179.820	7459.90	10375.14	-10375.63	555.28	1707705.39	14533117.30	40°01'02.215"N	104°45'34.799"W	0.64	
18476.00	89.140	180.050	7460.91	10463.14	-10463.62	555.38	1707705.73	14533029.34	40°01'01.346"N	104°45'34.798"W	0.52	
18563.00	88.860	179.950	7462.43	10550.12	-10550.61	555.38	1707705.96	14532942.39	40°01'00.486"N	104°45'34.798"W	0.34	
18650.00	88.580	179.270	7464.37	10637.10	-10637.59	555.97	1707706.78	14532855.45	40°00'59.626"N	104°45'34.790"W	0.85	
18705.00	88.610	179.340	7465.72	10692.08	-10692.57	556.64	1707707.60	14532800.50	40°00'59.083"N	104°45'34.782"W	0.14	LAST BHGE MWD+IFR1+MSA SURVEY
18750.00	88.610	179.340	7466.81	10737.06	-10737.55	557.16	1707708.24	14532755.53	40°00'58.639"N	104°45'34.775"W	0.00	PTB (471'FSL & 1615'FEL,SEC.27) 40.0162885 -104.7596597

HOLE & CASING SECTIONS - Ref Wellbore: MAB 15-11HZ AWB Ref Wellpath: MAB 15-11HZ 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]
9.625in Casing Surface	17.00	1861.00	1844.00	17.00	1828.55	0.00	0.00	230.38	169.06

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T1N-R66W	34.00	629.57	-1679.58	1705441.98	14544112.12	40°02'50.971"N	104°46'03.533"W	polygon
SEC.27-T1N-R66W	34.00	629.57	-1679.58	1705441.98	14544112.12	40°02'50.971"N	104°46'03.533"W	polygon
MAB 15-11HZ HEEL REV-1(670'FSL & 1617'FEL,SEC.15)	7450.00	31.38	554.35	1707676.62	14543520.14	40°02'45.060"N	104°45'34.808"W	point
MAB 15-11HZ BHL REV-1(470'FSL & 1627'FEL,SEC.27)	7481.00	-10739.23	545.01	1707696.10	14532753.82	40°00'58.622"N	104°45'34.931"W	point
MAB 15-15HZ SU 2 LANDBOX	7698.00	-30.16	-0.31	1707122.34	14543457.15	40°02'44.452"N	104°45'41.940"W	polygon
MAB 15-15HZ SU 2 RADIUS 1	7698.00	-9892.57	864.61	1708013.30	14533601.00	40°01'06.989"N	104°45'30.823"W	polygon
MAB 15-15HZ SU 2 RADIUS 2	7698.00	-639.21	846.66	1707970.60	14542850.60	40°02'38.433"N	104°45'31.050"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: MAB 15-11HZ AWB Ref Wellpath: MAB 15-11HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1822.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <124 - 1822>	MAB 15-11HZ AWB
1822.00	18705.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1888 - 18705>	MAB 15-11HZ AWB
18705.00	18750.00	Blind Drilling (std)	Projection to bit	MAB 15-11HZ AWB



Actual Wellpath Report

MAB 15-11HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 MAB 15-11HZ(638'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-11HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
124.00	0.310	318.000	124.00	FIRST SURFACE MWD+IFR1 SURVEY
1822.00	15.070	37.630	1790.90	LAST SURFACE MWD+IFR1 SURVEY
1888.00	15.100	38.270	1854.62	FIRST BHGE MWD+IFR1+MSA SURVEY
6817.00	1.342	143.783	6704.20	KOP
7777.00	71.205	181.136	7421.20	ENTER LANDBOX (865'FSL & 1637'FEL,SEC.15) 40.0463871 -104.7597396
7979.00	89.230	177.730	7457.42	LANDING (667'FSL & 1632'FEL,SEC.15) 40.0458442 -104.7597237
9011.00	88.825	178.977	7471.52	EXIT RADIUS HEEL (364'FNL & 1608'FEL,SEC.22) 40.0430127 -104.7596355
17572.00	91.307	180.260	7467.45	ENTER RADIUS TOE (1649'FSL & 1624'FEL,SEC.27) 40.0195213 -104.7596922
18705.00	88.610	179.340	7465.72	LAST BHGE MWD+IFR1+MSA SURVEY
18750.00	88.610	179.340	7466.81	PTB (471'FSL & 1615'FEL,SEC.27) 40.0162885 -104.7596597