

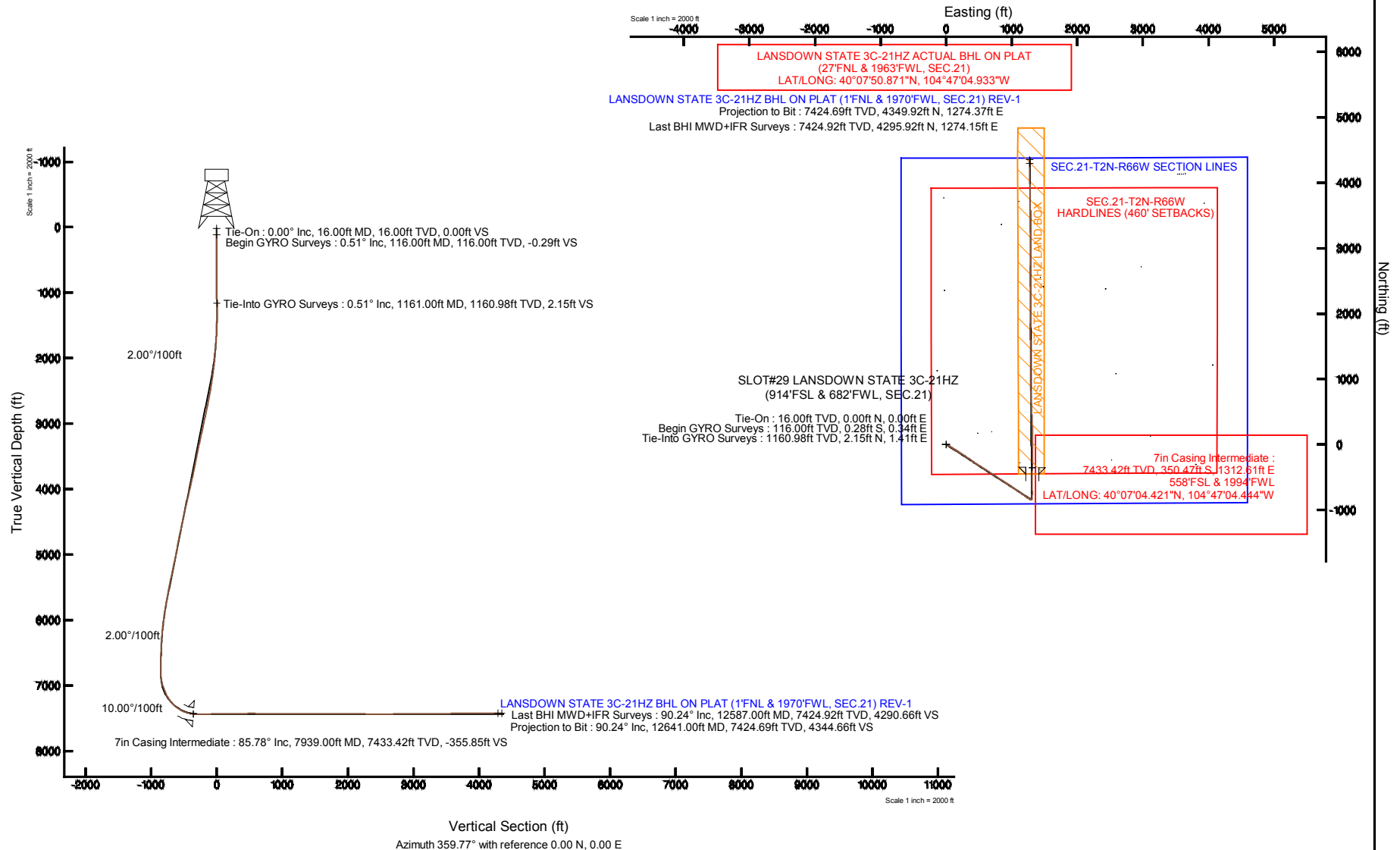
KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#29 LANSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21)
 Field: WELD COUNTY (KERR MCGEE) Well: LANSDOWN STATE 3C-21HZ
 Facility: SEC.21-T2N-R66W Wellbore: LANSDOWN STATE 3C-21HZ PWB



Plot reference wellpath is LANSDOWN STATE 3C-21HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 20 (16KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 20 (16KB) (RKB)	North Reference: True north
XTREME 20 (16KB) (RKB) to Mean Sea Level: 4950 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#29 LANSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 30/May/2014



Actual Wellpath Report

LANDSDOWN STATE 3C-21HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 LANDSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21)
Area	COLORADO	Well	LANDSDOWN STATE 3C-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	LANDSDOWN STATE 3C-21HZ AWB
Facility	SEC.21-T2N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999959	Report Generated	30/May/2014 at 10:59
Convergence at slot	n/a	Database/Source file	WellArchitectDB/LANDSDOWN_STATE_3C-21HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3783.19	-3937.00	3198766.90	1286940.16	40°07'07.885"N	104°47'21.340"W
Facility Reference Pt			3202672.68	1290755.25	40°07'45.274"N	104°46'30.663"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 20 (16'KB) (RKB) to Facility Vertical Datum	4950.00ft
Horizontal Reference Pt	Slot	XTREME 20 (16'KB) (RKB) to Mean Sea Level	4950.00ft
Vertical Reference Pt	XTREME 20 (16'KB) (RKB)	XTREME 20 (16'KB) (RKB) to Mud Line at Slot (SLOT#29 LANDSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21))	4950.00ft
MD Reference Pt	XTREME 20 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.77°

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Area	COLORADO	Well	LANDSDOWN STATE 3C-21HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	LANDSDOWN STATE 3C-21HZ AWP	
Facility	SEC.21-T2N-R66W			

WELLPATH DATA (157 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	129.790	0.00	0.00	0.00	0.00	40°07'07.885"N	104°47'21.340"W	0.00	
16.00	0.000	129.790	16.00	0.00	0.00	0.00	40°07'07.885"N	104°47'21.340"W	0.00	Tie-On
116.00	0.510	129.790	116.00	-0.29	-0.28	0.34	40°07'07.882"N	104°47'21.336"W	0.51	Begin GYRO Surveys
216.00	0.530	19.290	216.00	-0.14	-0.13	0.84	40°07'07.884"N	104°47'21.329"W	0.85	
316.00	0.250	213.390	316.00	0.12	0.12	0.87	40°07'07.886"N	104°47'21.329"W	0.77	
416.00	0.650	60.780	415.99	0.21	0.22	1.24	40°07'07.887"N	104°47'21.324"W	0.88	
516.00	0.650	332.640	515.99	0.99	1.00	1.48	40°07'07.895"N	104°47'21.321"W	0.90	
616.00	0.350	244.070	615.99	1.36	1.37	0.94	40°07'07.899"N	104°47'21.328"W	0.73	
716.00	0.490	111.250	715.99	1.07	1.08	1.07	40°07'07.896"N	104°47'21.326"W	0.77	
816.00	0.590	7.760	815.98	1.43	1.43	1.54	40°07'07.899"N	104°47'21.320"W	0.85	
916.00	0.370	243.350	915.98	1.79	1.80	1.32	40°07'07.903"N	104°47'21.323"W	0.86	
1016.00	0.470	93.280	1015.98	1.62	1.63	1.44	40°07'07.901"N	104°47'21.322"W	0.81	
1116.00	0.430	333.100	1115.98	1.93	1.94	1.68	40°07'07.904"N	104°47'21.318"W	0.78	
1161.00	0.510	287.630	1160.98	2.15	2.15	1.41	40°07'07.906"N	104°47'21.322"W	0.82	Tie-Into GYRO Surveys
1272.00	0.220	35.840	1271.98	2.47	2.48	1.06	40°07'07.909"N	104°47'21.326"W	0.55	
1366.00	1.360	98.780	1365.97	2.44	2.45	2.27	40°07'07.909"N	104°47'21.311"W	1.36	
1460.00	3.020	111.220	1459.89	1.36	1.38	5.68	40°07'07.899"N	104°47'21.267"W	1.83	
1555.00	4.500	110.160	1554.69	-0.85	-0.81	11.51	40°07'07.877"N	104°47'21.192"W	1.56	
1647.00	6.150	119.120	1646.29	-4.53	-4.45	19.21	40°07'07.841"N	104°47'21.093"W	2.00	
1739.00	6.970	122.740	1737.69	-9.98	-9.87	28.21	40°07'07.788"N	104°47'20.977"W	1.00	
1831.00	7.460	122.540	1828.96	-16.25	-16.10	37.94	40°07'07.726"N	104°47'20.852"W	0.53	
1923.00	8.070	122.230	1920.11	-22.95	-22.75	48.44	40°07'07.660"N	104°47'20.717"W	0.66	
2014.00	9.530	124.990	2010.04	-30.73	-30.48	60.01	40°07'07.584"N	104°47'20.568"W	1.67	
2106.00	11.230	122.960	2100.53	-40.02	-39.72	73.77	40°07'07.492"N	104°47'20.390"W	1.89	
2198.00	13.240	122.290	2190.44	-50.59	-50.22	90.19	40°07'07.389"N	104°47'20.179"W	2.19	
2290.00	14.680	124.630	2279.72	-62.92	-62.48	108.69	40°07'07.268"N	104°47'19.941"W	1.68	
2381.00	16.060	120.320	2367.46	-75.91	-75.39	129.05	40°07'07.140"N	104°47'19.679"W	1.97	
2473.00	18.200	120.800	2455.38	-89.79	-89.17	152.38	40°07'07.004"N	104°47'19.379"W	2.33	
2565.00	19.340	122.770	2542.48	-105.50	-104.77	177.53	40°07'06.850"N	104°47'19.055"W	1.42	
2657.00	19.950	121.360	2629.13	-122.02	-121.19	203.74	40°07'06.687"N	104°47'18.717"W	0.84	
2748.00	19.550	123.790	2714.78	-138.67	-137.73	229.65	40°07'06.524"N	104°47'18.384"W	1.00	
2840.00	20.530	124.770	2801.21	-156.54	-155.49	255.70	40°07'06.348"N	104°47'18.049"W	1.13	
2931.00	21.260	121.770	2886.22	-174.44	-173.28	282.83	40°07'06.173"N	104°47'17.699"W	1.42	
3023.00	21.120	122.320	2972.00	-192.20	-190.92	311.02	40°07'05.998"N	104°47'17.337"W	0.26	
3114.00	21.350	123.390	3056.83	-210.19	-208.81	338.70	40°07'05.822"N	104°47'16.980"W	0.50	
3205.00	20.710	125.500	3141.76	-228.76	-227.27	365.64	40°07'05.639"N	104°47'16.634"W	1.09	
3297.00	20.150	127.000	3227.98	-247.85	-246.25	391.53	40°07'05.451"N	104°47'16.300"W	0.83	
3389.00	20.870	125.630	3314.15	-267.04	-265.33	417.51	40°07'05.263"N	104°47'15.966"W	0.94	
3481.00	20.640	122.800	3400.18	-285.48	-283.66	444.46	40°07'05.082"N	104°47'15.619"W	1.12	
3572.00	19.810	123.300	3485.57	-302.75	-300.82	470.83	40°07'04.912"N	104°47'15.280"W	0.93	
3664.00	19.900	121.680	3572.10	-319.64	-317.60	497.18	40°07'04.746"N	104°47'14.940"W	0.61	
3755.00	21.020	120.620	3657.36	-336.20	-334.05	524.41	40°07'04.584"N	104°47'14.590"W	1.30	
3847.00	21.600	123.800	3743.07	-354.14	-351.87	552.68	40°07'04.408"N	104°47'14.226"W	1.41	
3939.00	21.110	121.680	3828.75	-372.37	-369.99	580.85	40°07'04.229"N	104°47'13.863"W	0.99	
4030.00	22.290	122.540	3913.30	-390.38	-387.88	609.35	40°07'04.052"N	104°47'13.497"W	1.34	

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Area	COLORADO	Well	LANDSDOWN STATE 3C-21HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	LANDSDOWN STATE 3C-21HZ AWP	
Facility	SEC.21-T2N-R66W			

WELLPATH DATA (157 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4122.00	22.650	124.800	3998.32	-409.99	-407.38	638.60	40°07'03.859"N	104°47'13.120"W	1.02	
4214.00	21.720	122.630	4083.51	-429.40	-426.67	667.49	40°07'03.669"N	104°47'12.748"W	1.35	
4299.00	23.100	123.660	4162.09	-447.24	-444.39	694.61	40°07'03.493"N	104°47'12.399"W	1.69	
4384.00	21.610	124.060	4240.70	-465.36	-462.40	721.46	40°07'03.315"N	104°47'12.054"W	1.76	
4469.00	20.850	123.640	4319.93	-482.61	-479.55	747.02	40°07'03.146"N	104°47'11.725"W	0.91	
4555.00	21.300	122.440	4400.18	-499.57	-496.41	772.95	40°07'02.979"N	104°47'11.391"W	0.72	
4640.00	22.070	122.560	4479.16	-516.56	-513.28	799.44	40°07'02.813"N	104°47'11.050"W	0.91	
4725.00	21.390	124.540	4558.12	-534.05	-530.66	825.66	40°07'02.641"N	104°47'10.712"W	1.18	
4810.00	21.250	123.220	4637.30	-551.38	-547.89	851.32	40°07'02.471"N	104°47'10.382"W	0.59	
4895.00	21.220	121.550	4716.53	-567.97	-564.38	877.31	40°07'02.308"N	104°47'10.047"W	0.71	
4980.00	20.600	121.420	4795.94	-583.92	-580.22	903.18	40°07'02.151"N	104°47'09.715"W	0.73	
5065.00	19.020	122.070	4875.90	-599.17	-595.37	927.68	40°07'02.001"N	104°47'09.399"W	1.88	
5150.00	18.660	123.730	4956.35	-614.17	-610.28	950.73	40°07'01.854"N	104°47'09.103"W	0.76	
5235.00	18.870	124.180	5036.83	-629.54	-625.55	973.41	40°07'01.703"N	104°47'08.811"W	0.30	
5321.00	19.900	127.200	5117.96	-646.30	-642.21	996.57	40°07'01.538"N	104°47'08.512"W	1.67	
5406.00	20.270	124.590	5197.79	-663.50	-659.32	1020.22	40°07'01.369"N	104°47'08.208"W	1.14	
5491.00	20.390	124.800	5277.49	-680.41	-676.13	1044.50	40°07'01.203"N	104°47'07.896"W	0.17	
5576.00	19.940	124.700	5357.28	-697.21	-692.83	1068.57	40°07'01.038"N	104°47'07.586"W	0.53	
5661.00	18.260	125.810	5437.60	-713.35	-708.88	1091.29	40°07'00.880"N	104°47'07.293"W	2.02	
5746.00	19.550	122.400	5518.02	-728.85	-724.29	1114.10	40°07'00.727"N	104°47'07.000"W	2.00	
5831.00	19.310	121.990	5598.18	-744.02	-739.35	1138.03	40°07'00.578"N	104°47'06.692"W	0.32	
5916.00	17.550	122.770	5678.81	-758.49	-753.74	1160.72	40°07'00.436"N	104°47'06.400"W	2.09	
6001.00	17.070	126.930	5759.97	-773.01	-768.17	1181.47	40°07'00.294"N	104°47'06.133"W	1.56	
6086.00	16.680	126.080	5841.31	-787.77	-782.85	1201.30	40°07'00.148"N	104°47'05.877"W	0.54	
6171.00	13.530	123.460	5923.36	-800.51	-795.52	1219.46	40°07'00.023"N	104°47'05.644"W	3.79	
6256.00	13.390	122.970	6006.03	-811.42	-806.36	1236.02	40°06'59.916"N	104°47'05.431"W	0.21	
6341.00	11.060	120.250	6089.09	-820.95	-815.82	1251.32	40°06'59.823"N	104°47'05.234"W	2.82	
6426.00	9.730	123.050	6172.70	-829.03	-823.85	1264.38	40°06'59.743"N	104°47'05.065"W	1.67	
6511.00	8.340	120.520	6256.64	-836.12	-830.90	1275.71	40°06'59.674"N	104°47'04.920"W	1.70	
6596.00	6.590	118.930	6340.92	-841.65	-836.39	1285.29	40°06'59.619"N	104°47'04.796"W	2.07	
6681.00	5.090	121.210	6425.47	-845.99	-840.70	1292.79	40°06'59.577"N	104°47'04.700"W	1.79	
6766.00	4.150	117.980	6510.20	-849.42	-844.10	1298.73	40°06'59.543"N	104°47'04.623"W	1.15	
6852.00	2.460	137.270	6596.05	-852.25	-846.91	1302.73	40°06'59.515"N	104°47'04.572"W	2.33	
6937.00	0.540	98.270	6681.02	-853.65	-848.31	1304.36	40°06'59.502"N	104°47'04.551"W	2.43	
7022.00	0.580	100.520	6766.02	-853.79	-848.45	1305.18	40°06'59.500"N	104°47'04.540"W	0.05	
7107.00	4.210	2.370	6850.94	-850.75	-845.41	1305.74	40°06'59.530"N	104°47'04.533"W	5.09	
7150.00	8.500	8.040	6893.67	-846.03	-840.68	1306.25	40°06'59.577"N	104°47'04.527"W	10.07	
7192.00	12.630	8.450	6934.95	-838.42	-833.06	1307.36	40°06'59.652"N	104°47'04.512"W	9.83	
7235.00	15.430	9.930	6976.66	-828.14	-822.77	1309.03	40°06'59.754"N	104°47'04.491"W	6.56	
7277.00	18.430	4.670	7016.84	-816.02	-810.65	1310.54	40°06'59.874"N	104°47'04.471"W	8.01	
7320.00	19.980	4.290	7057.44	-801.92	-796.55	1311.64	40°07'00.013"N	104°47'04.457"W	3.62	
7362.00	23.500	4.670	7096.45	-786.42	-781.04	1312.86	40°07'00.166"N	104°47'04.441"W	8.39	
7405.00	27.000	1.660	7135.34	-768.12	-762.74	1313.84	40°07'00.347"N	104°47'04.429"W	8.67	
7447.00	30.070	0.150	7172.23	-748.06	-742.68	1314.14	40°07'00.545"N	104°47'04.425"W	7.51	
7490.00	34.110	359.550	7208.65	-725.22	-719.84	1314.08	40°07'00.771"N	104°47'04.426"W	9.42	

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WELLPATH DATA (157 stations) † = interpolated/extrapolated station

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7533.00	37.920	358.360	7243.43	-699.95	-694.57	1313.60	40°07'01.021"N	104°47'04.432"W	9.01	
7576.00	42.440	358.690	7276.27	-672.22	-666.84	1312.89	40°07'01.295"N	104°47'04.441"W	10.52	
7618.00	46.640	359.100	7306.20	-642.77	-637.39	1312.33	40°07'01.586"N	104°47'04.448"W	10.02	
7661.00	51.330	358.300	7334.41	-610.34	-604.96	1311.59	40°07'01.906"N	104°47'04.458"W	11.00	
7703.00	55.820	359.330	7359.35	-576.56	-571.19	1310.90	40°07'02.240"N	104°47'04.467"W	10.87	
7746.00	60.920	0.150	7381.89	-539.96	-534.59	1310.74	40°07'02.602"N	104°47'04.469"W	11.97	
7788.00	65.940	0.810	7400.67	-502.41	-497.04	1311.06	40°07'02.973"N	104°47'04.464"W	12.03	
7831.00	73.330	0.160	7415.62	-462.13	-456.75	1311.39	40°07'03.371"N	104°47'04.460"W	17.24	
7874.00	79.740	0.300	7425.63	-420.33	-414.96	1311.56	40°07'03.784"N	104°47'04.458"W	14.91	
7914.00	84.160	1.150	7431.23	-380.74	-375.37	1312.06	40°07'04.175"N	104°47'04.451"W	11.25	
7939.00†	85.780	1.376	7433.42	-355.85	-350.47	1312.61	40°07'04.421"N	104°47'04.444"W	6.54	7" Casing Point
7995.00	89.410	1.880	7435.77	-299.94	-294.55	1314.20	40°07'04.974"N	104°47'04.424"W	6.54	
8080.00	89.960	0.840	7436.24	-214.97	-209.58	1316.22	40°07'05.814"N	104°47'04.398"W	1.38	
8165.00	91.390	0.260	7435.24	-129.99	-124.59	1317.04	40°07'06.653"N	104°47'04.387"W	1.82	
8250.00	91.200	0.150	7433.32	-45.01	-39.61	1317.34	40°07'07.493"N	104°47'04.383"W	0.26	
8335.00	91.350	0.850	7431.43	39.96	45.36	1318.08	40°07'08.333"N	104°47'04.374"W	0.84	
8420.00	90.950	359.400	7429.72	124.94	130.34	1318.27	40°07'09.173"N	104°47'04.371"W	1.77	
8504.00	90.460	357.990	7428.69	208.91	214.31	1316.35	40°07'10.003"N	104°47'04.396"W	1.78	
8590.00	90.120	357.340	7428.25	294.85	300.24	1312.85	40°07'10.852"N	104°47'04.441"W	0.85	
8674.00	90.700	357.860	7427.65	378.79	384.16	1309.33	40°07'11.681"N	104°47'04.486"W	0.93	
8759.00	90.610	357.640	7426.68	463.73	469.09	1306.00	40°07'12.520"N	104°47'04.529"W	0.28	
8844.00	89.750	357.790	7426.41	548.68	554.02	1302.61	40°07'13.360"N	104°47'04.573"W	1.03	
8930.00	89.320	357.300	7427.11	634.61	639.94	1298.92	40°07'14.209"N	104°47'04.620"W	0.76	
9015.00	89.530	357.600	7427.96	719.53	724.85	1295.14	40°07'15.048"N	104°47'04.668"W	0.43	
9100.00	89.750	358.300	7428.50	804.49	809.80	1292.10	40°07'15.887"N	104°47'04.708"W	0.86	
9185.00	89.930	358.050	7428.73	889.46	894.75	1289.39	40°07'16.727"N	104°47'04.742"W	0.36	
9271.00	90.150	359.680	7428.67	975.44	980.73	1287.69	40°07'17.576"N	104°47'04.764"W	1.91	
9356.00	90.520	359.740	7428.18	1060.44	1065.73	1287.26	40°07'18.416"N	104°47'04.770"W	0.44	
9441.00	90.580	359.550	7427.36	1145.44	1150.72	1286.73	40°07'19.256"N	104°47'04.776"W	0.23	
9526.00	89.900	0.370	7427.01	1230.44	1235.72	1286.67	40°07'20.096"N	104°47'04.777"W	1.25	
9611.00	90.060	0.220	7427.03	1315.43	1320.72	1287.11	40°07'20.936"N	104°47'04.771"W	0.26	
9696.00	89.900	359.770	7427.06	1400.43	1405.72	1287.10	40°07'21.776"N	104°47'04.771"W	0.56	
9781.00	89.530	359.250	7427.49	1485.43	1490.72	1286.38	40°07'22.616"N	104°47'04.781"W	0.75	
9866.00	88.420	358.680	7429.01	1570.40	1575.69	1284.84	40°07'23.456"N	104°47'04.800"W	1.47	
9951.00	88.950	359.780	7430.96	1655.38	1660.66	1283.70	40°07'24.295"N	104°47'04.815"W	1.44	
10037.00	89.070	359.670	7432.44	1741.36	1746.64	1283.29	40°07'25.145"N	104°47'04.820"W	0.19	
10122.00	89.960	1.020	7433.16	1826.35	1831.63	1283.80	40°07'25.985"N	104°47'04.814"W	1.90	
10207.00	90.400	1.580	7432.90	1911.32	1916.61	1285.73	40°07'26.825"N	104°47'04.789"W	0.84	
10292.00	89.780	0.780	7432.76	1996.30	2001.59	1287.48	40°07'27.665"N	104°47'04.766"W	1.19	
10377.00	89.930	0.450	7432.98	2081.29	2086.59	1288.39	40°07'28.505"N	104°47'04.754"W	0.43	
10462.00	89.560	359.430	7433.36	2166.28	2171.59	1288.30	40°07'29.345"N	104°47'04.756"W	1.28	
10547.00	89.630	359.030	7433.96	2251.28	2256.58	1287.16	40°07'30.184"N	104°47'04.770"W	0.48	
10632.00	89.960	359.290	7434.26	2336.27	2341.57	1285.91	40°07'31.024"N	104°47'04.786"W	0.49	
10717.00	89.810	358.510	7434.43	2421.26	2426.55	1284.28	40°07'31.864"N	104°47'04.807"W	0.93	
10802.00	89.630	359.380	7434.85	2506.25	2511.53	1282.72	40°07'32.704"N	104°47'04.827"W	1.05	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP		Slot	SLOT#29 LANDSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21)
Area	COLORADO		Well	LANDSDOWN STATE 3C-21HZ
Field	WELD COUNTY (KERR MCGEE)		Wellbore	LANDSDOWN STATE 3C-21HZ AWP
Facility	SEC.21-T2N-R66W			

WELLPATH DATA (157 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10887.00	90.090	0.000	7435.06	2591.25	2596.53	1282.26	40°07'33.544"N	104°47'04.833"W	0.91	
10972.00	91.010	1.270	7434.24	2676.23	2681.52	1283.20	40°07'34.384"N	104°47'04.821"W	1.84	
11058.00	91.040	1.460	7432.70	2762.19	2767.48	1285.25	40°07'35.233"N	104°47'04.794"W	0.22	
11143.00	90.700	0.680	7431.41	2847.15	2852.45	1286.83	40°07'36.073"N	104°47'04.774"W	1.00	
11228.00	90.430	359.580	7430.57	2932.15	2937.45	1287.03	40°07'36.913"N	104°47'04.771"W	1.33	
11313.00	90.060	359.690	7430.21	3017.14	3022.45	1286.49	40°07'37.753"N	104°47'04.778"W	0.45	
11398.00	90.210	359.530	7430.01	3102.14	3107.44	1285.91	40°07'38.593"N	104°47'04.786"W	0.26	
11483.00	89.290	359.190	7430.38	3187.14	3192.44	1284.96	40°07'39.433"N	104°47'04.798"W	1.15	
11568.00	88.720	359.160	7431.86	3272.12	3277.42	1283.73	40°07'40.272"N	104°47'04.814"W	0.67	
11653.00	89.960	359.700	7432.83	3357.11	3362.40	1282.89	40°07'41.112"N	104°47'04.824"W	1.59	
11738.00	90.400	359.430	7432.57	3442.11	3447.40	1282.24	40°07'41.952"N	104°47'04.833"W	0.61	
11823.00	93.630	0.440	7429.58	3527.05	3532.34	1282.15	40°07'42.792"N	104°47'04.834"W	3.98	
11908.00	94.070	0.070	7423.87	3611.85	3617.14	1282.52	40°07'43.630"N	104°47'04.829"W	0.68	
11994.00	91.140	358.730	7419.96	3697.75	3703.04	1281.62	40°07'44.479"N	104°47'04.841"W	3.75	
12079.00	89.660	358.880	7419.37	3782.73	3788.01	1279.85	40°07'45.318"N	104°47'04.863"W	1.75	
12164.00	89.100	359.300	7420.29	3867.72	3873.00	1278.50	40°07'46.158"N	104°47'04.881"W	0.82	
12249.00	89.320	359.000	7421.46	3952.71	3957.98	1277.24	40°07'46.998"N	104°47'04.897"W	0.44	
12334.00	90.670	359.640	7421.47	4037.70	4042.97	1276.23	40°07'47.838"N	104°47'04.910"W	1.76	
12419.00	88.320	359.360	7422.22	4122.69	4127.96	1275.49	40°07'48.678"N	104°47'04.919"W	2.78	
12504.00	88.890	359.300	7424.29	4207.67	4212.93	1274.50	40°07'49.517"N	104°47'04.932"W	0.67	
12587.00	90.240	0.230	7424.92	4290.66	4295.92	1274.15	40°07'50.337"N	104°47'04.936"W	1.98	Last BHI MWD+IFR Surveys
12641.00	90.240	0.230	7424.69	4344.66	4349.92	1274.37	40°07'50.871"N	104°47'04.933"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: LANDSDOWN STATE 3C-21HZ AWP Ref Wellpath: LANDSDOWN STATE 3C-21HZ 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	1241.00	1225.00	16.00	1240.98	0.00	0.00	2.38	1.04
9.625in Open Hole	16.00	1251.00	1235.00	16.00	1250.98	0.00	0.00	2.41	1.04
8.75in Open Hole	1251.00	7955.00	6704.00	1250.98	7434.46	2.41	1.04	-334.51	1313.02
7in Casing Intermediate	16.00	7939.00	7923.00	16.00	7433.42	0.00	0.00	-350.47	1312.61
6.125in Open Hole	7955.00	12641.00	4686.00	7434.46	7424.69	-334.51	1313.02	4349.92	1274.37

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 LANDSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21)
Area	COLORADO	Well	LANDSDOWN STATE 3C-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	LANDSDOWN STATE 3C-21HZ AWB
Facility	SEC.21-T2N-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.21-T2N-R66W HARDLINES (460' SETBACKS)		-56.00	4134.71	3647.24	3202380.72	1291103.80	40°07'48.742"N	104°46'34.385"W	polygon
SEC.21-T2N-R66W SECTION LINES		-56.00	4134.71	3647.24	3202380.72	1291103.80	40°07'48.742"N	104°46'34.385"W	polygon
LANDSDOWN STATE 3C-21HZ BHL ON PLAT (1'FNL & 1970'FWL, SEC.21) REV-1		7435.00	4375.60	1281.01	3200012.74	1291325.70	40°07'51.125"N	104°47'04.848"W	point
LANDSDOWN STATE 3C-21HZ LAND BOX		7435.00	0.00	0.00	3198766.89	1286940.16	40°07'07.885"N	104°47'21.340"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: LANDSDOWN STATE 3C-21HZ AWB					Ref Wellpath: LANDSDOWN STATE 3C-21HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
16.00	1161.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <116-1161>		LANDSDOWN STATE 3C-21HZ AWB	
1161.00	7914.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1272-7914>		LANDSDOWN STATE 3C-21HZ AWB	
7914.00	12587.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7995-12587>		LANDSDOWN STATE 3C-21HZ AWB	
12587.00	12641.00	Blind Drilling (std)	Projection to bit		LANDSDOWN STATE 3C-21HZ AWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 LANDSDOWN STATE 3C-21HZ (914'FSL & 682'FWL, SEC.21)
Area	COLORADO	Well	LANDSDOWN STATE 3C-21HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	LANDSDOWN STATE 3C-21HZ AWB
Facility	SEC.21-T2N-R66W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
16.00	0.000	129.790	16.00	Tie-On	
116.00	0.510	129.790	116.00	Begin GYRO Surveys	
1161.00	0.510	287.630	1160.98	Tie-Into GYRO Surveys	
7939.00	85.780	1.376	7433.42	7" Casing Point	
12587.00	90.240	0.230	7424.92	Last BHI MWD+IFR Surveys	
12641.00	90.240	0.230	7424.69	Projection to Bit	