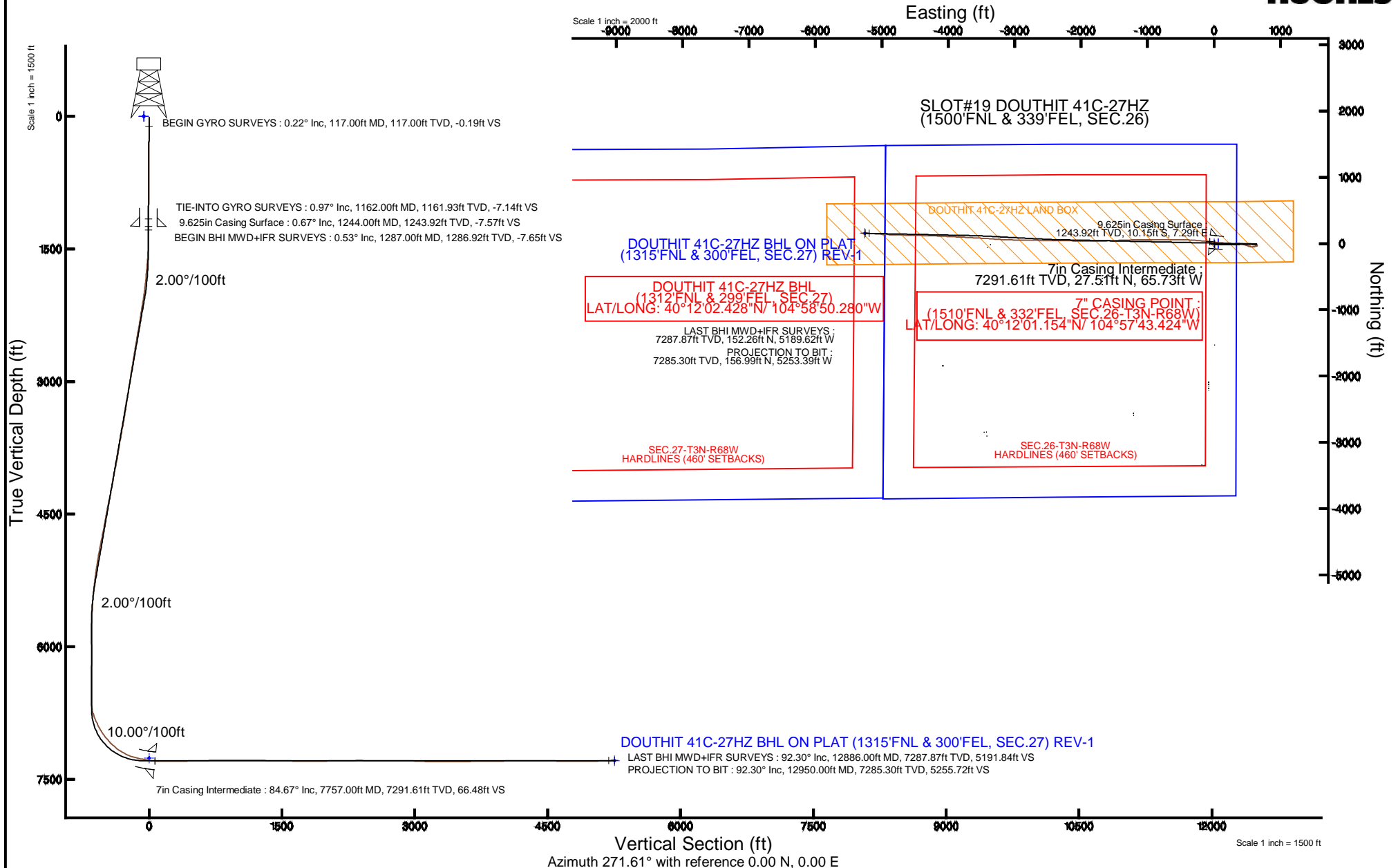


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
 Field: WELD COUNTY (KERR MCGEE) Well: DOUTHIT 41C-27HZ
 Facility: SEC.26-T3N-R68W Wellbore: DOUTHIT 41C-27HZ PWB

Plot reference wellpath is DOUTHIT 41C-27HZ (REV-D.0) PWP

True vertical depths are referenced to XTREME 8 (17KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (17KB) (RKB)	North Reference: True north
XTREME 8 (17KB) (RKB) to Mean Sea Level: 4959 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: amarcar on 10/22/2014



Actual Wellpath Report

DOUTHIT 41C-27HZ AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Amarcar
Scale	0.999957	Report Generated	10/22/2014 at 8:28:51 AM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/DOUTHIT_41C-27HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	2854.52	3428.40	3150327.48	1316247.88	40°12'00.882"N	104°57'42.577"W
Facility Reference Pt			3146916.23	1313373.21	40°11'32.676"N	104°58'26.760"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 8 (17'KB) (RKB) to Facility Vertical Datum	4959.00ft
Horizontal Reference Pt	Slot	XTREME 8 (17'KB) (RKB) to Mean Sea Level	4959.00ft
Vertical Reference Pt	XTREME 8 (17'KB) (RKB)	XTREME 8 (17'KB) (RKB) to Mud Line at Slot (SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26))	4959.00ft
MD Reference Pt	XTREME 8 (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	271.61°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	99.130	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	99.130	17.00	0.00	0.00	0.00	0.00	
117.00	0.220	99.130	117.00	-0.19	-0.03	0.19	0.22	BEGIN GYRO SURVEYS
217.00	0.290	134.010	217.00	-0.57	-0.24	0.56	0.17	
317.00	0.340	139.810	317.00	-0.95	-0.64	0.93	0.06	
417.00	0.500	139.480	416.99	-1.44	-1.20	1.41	0.16	
517.00	0.580	134.640	516.99	-2.11	-1.88	2.05	0.09	
617.00	0.620	141.360	616.98	-2.82	-2.66	2.75	0.08	
717.00	0.740	138.210	716.98	-3.62	-3.57	3.52	0.13	
817.00	0.720	146.730	816.97	-4.42	-4.57	4.29	0.11	
917.00	0.790	145.800	916.96	-5.18	-5.67	5.03	0.07	
1017.00	0.820	151.890	1016.95	-5.94	-6.87	5.75	0.09	
1117.00	1.080	152.250	1116.94	-6.76	-8.34	6.53	0.26	
1162.00	0.970	154.810	1161.93	-7.14	-9.06	6.89	0.26	TIE-INTO GYRO SURVEYS
1287.00	0.530	178.240	1286.92	-7.65	-10.59	7.35	0.42	BEGIN BHI MWD+IFR SURVEYS
1396.00	0.540	222.690	1395.91	-7.34	-11.47	7.02	0.37	
1487.00	1.970	102.640	1486.90	-8.59	-12.13	8.26	2.51	
1600.00	5.070	101.060	1599.67	-15.43	-13.51	15.05	2.74	
1692.00	5.070	98.810	1691.31	-23.47	-14.92	23.06	0.22	
1783.00	4.590	98.420	1781.99	-31.08	-16.06	30.64	0.53	
1875.00	5.930	90.080	1873.60	-39.48	-16.61	39.03	1.67	
1967.00	7.070	91.140	1965.01	-49.89	-16.73	49.44	1.25	
2059.00	8.780	86.940	2056.13	-62.56	-16.47	62.12	1.96	
2151.00	9.860	88.180	2146.91	-77.42	-15.84	77.00	1.19	
2242.00	8.680	89.400	2236.72	-92.06	-15.52	91.66	1.31	
2334.00	9.590	91.060	2327.55	-106.66	-15.59	106.26	1.03	
2517.00	9.480	84.880	2508.03	-136.87	-14.53	136.51	0.56	
2701.00	9.460	87.080	2689.52	-166.99	-12.41	166.71	0.20	
2885.00	8.900	79.870	2871.17	-196.00	-9.13	195.82	0.69	
2976.00	9.200	86.230	2961.04	-210.14	-7.42	210.01	1.15	
3159.00	8.640	79.120	3141.83	-238.12	-3.86	238.11	0.68	
3251.00	8.620	83.070	3232.79	-251.69	-1.72	251.74	0.64	
3342.00	9.740	84.420	3322.62	-266.07	-0.15	266.17	1.25	
3428.00	9.220	97.040	3407.46	-280.15	-0.29	280.25	2.49	
3513.00	10.040	87.590	3491.27	-294.32	-0.81	294.41	2.09	
3598.00	10.560	90.060	3574.90	-309.49	-0.51	309.60	0.80	
3683.00	10.880	87.260	3658.41	-325.28	-0.13	325.40	0.72	
3768.00	9.050	82.210	3742.13	-339.88	1.16	340.04	2.38	
3858.00	8.220	84.520	3831.11	-353.24	2.73	353.46	1.00	
3945.00	12.280	97.530	3916.71	-368.63	2.11	368.83	5.34	
4031.00	11.230	99.750	4000.91	-386.01	-0.51	386.15	1.33	
4116.00	9.230	96.720	4084.55	-401.00	-2.71	401.08	2.44	
4201.00	10.660	96.850	4168.27	-415.62	-4.44	415.66	1.68	
4288.00	12.220	105.640	4253.55	-432.57	-7.88	432.52	2.68	
4374.00	12.250	109.380	4337.60	-450.08	-13.36	449.89	0.92	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4459.00	12.040	110.290	4420.69	-467.07	-19.43	466.71	0.33	
4546.00	11.010	109.610	4505.94	-483.57	-25.37	483.05	1.19	
4631.00	10.410	112.880	4589.46	-498.44	-31.08	497.77	1.00	
4716.00	11.260	107.180	4672.95	-513.59	-36.51	512.77	1.61	
4801.00	11.930	107.100	4756.21	-530.05	-41.55	529.10	0.79	
4887.00	11.490	108.550	4840.42	-546.81	-46.89	545.71	0.62	
4972.00	10.620	101.330	4923.85	-562.63	-51.12	561.42	1.92	
5057.00	9.410	81.660	5007.57	-577.20	-51.65	575.98	4.24	
5142.00	9.010	77.530	5091.48	-590.50	-49.20	589.35	0.91	
5229.00	8.090	77.000	5177.51	-603.03	-46.36	601.97	1.06	
5315.00	6.820	78.790	5262.78	-613.87	-44.00	612.88	1.50	
5400.00	6.160	76.670	5347.24	-623.20	-41.97	622.26	0.83	
5485.00	5.120	76.050	5431.83	-631.26	-40.00	630.38	1.23	
5572.00	4.680	73.590	5518.51	-638.37	-38.07	637.56	0.56	
5657.00	3.870	79.710	5603.27	-644.48	-36.57	643.70	1.09	
5745.00	2.510	52.740	5691.14	-648.88	-34.88	648.16	2.26	
5830.00	0.570	10.120	5776.10	-650.40	-33.33	649.72	2.50	
6000.00	0.740	340.140	5946.09	-650.12	-31.47	649.49	0.22	
6341.00	0.850	25.760	6287.06	-650.35	-27.12	649.84	0.18	
6601.00	1.370	26.910	6547.01	-652.47	-22.61	652.09	0.20	
6686.00	1.370	286.950	6632.00	-651.92	-21.41	651.58	2.47	
6729.00	6.630	276.840	6674.88	-648.95	-20.96	648.62	12.29	
6772.00	12.660	276.910	6717.25	-641.78	-20.10	641.47	14.02	
6814.00	18.160	277.480	6757.73	-630.68	-18.69	630.40	13.10	
6857.00	20.850	277.140	6798.26	-616.39	-16.87	616.16	6.26	
6900.00	23.430	276.870	6838.08	-600.26	-14.89	600.08	6.00	
6942.00	26.720	274.430	6876.12	-582.51	-13.17	582.37	8.21	
6986.00	29.170	274.950	6914.99	-561.92	-11.48	561.82	5.60	
7030.00	30.930	273.680	6953.07	-539.91	-9.82	539.85	4.25	
7072.00	34.390	272.760	6988.42	-517.26	-8.56	517.23	8.32	
7115.00	38.440	271.940	7023.02	-491.74	-7.52	491.73	9.49	
7200.00	43.850	267.190	7087.02	-435.91	-8.07	435.86	7.35	
7285.00	50.960	267.460	7144.51	-373.55	-10.98	373.39	8.37	
7371.00	59.670	274.220	7193.44	-302.97	-9.73	302.82	12.01	
7456.00	69.060	275.780	7230.18	-226.57	-3.02	226.57	11.17	
7541.00	76.390	276.350	7255.40	-145.70	5.56	145.92	8.65	
7626.00	79.810	275.680	7272.93	-62.79	14.27	63.21	4.10	
7704.00	81.820	276.010	7285.38	14.00	22.11	-13.38	2.61	
7757.00†	84.669	275.768	7291.61	66.48	27.51	-65.73	5.39	7" CASING POINT
7832.00	88.700	275.430	7295.95	141.15	34.82	-140.23	5.39	
7930.00	90.740	275.000	7296.43	238.95	43.72	-237.82	2.13	
8009.00	91.320	274.010	7295.01	317.84	49.93	-316.56	1.45	
8094.00	91.760	272.810	7292.72	402.76	54.98	-401.38	1.50	
8179.00	91.140	270.970	7290.57	487.73	57.78	-486.30	2.28	
8267.00	91.320	269.970	7288.68	575.69	58.51	-574.28	1.15	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

WELLPATH DATA (125 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8352.00	90.740	270.080	7287.16	660.65	58.54	-659.26	0.69	
8437.00	89.780	269.840	7286.77	745.61	58.48	-744.26	1.16	
8525.00	90.400	269.460	7286.63	833.56	57.95	-832.26	0.83	
8697.00	90.300	269.540	7285.58	1005.44	56.45	-1004.25	0.07	
8868.00	89.720	269.440	7285.55	1176.32	54.92	-1175.24	0.34	
9123.00	88.570	267.120	7289.36	1430.84	47.27	-1430.08	1.02	
9208.00	89.220	267.700	7291.00	1515.60	43.43	-1514.97	1.02	
9294.00	89.590	268.190	7291.89	1601.42	40.35	-1600.91	0.71	
9472.00	89.410	269.390	7293.44	1779.19	36.59	-1778.86	0.68	
9649.00	90.950	270.910	7292.89	1956.12	37.05	-1955.85	1.22	
9913.00	91.040	271.270	7288.30	2220.07	42.07	-2219.76	0.14	
10180.00	89.250	269.990	7287.63	2487.01	45.01	-2486.73	0.82	
10358.00	90.800	271.290	7287.55	2664.98	47.00	-2664.71	1.14	
10536.00	89.000	270.550	7287.86	2842.96	49.86	-2842.68	1.09	
10710.00	87.750	271.470	7292.79	3016.87	52.92	-3016.58	0.89	
10795.00	87.380	271.670	7296.41	3101.80	55.25	-3101.47	0.49	
10880.00	87.810	272.670	7299.97	3186.72	58.46	-3186.33	1.28	
10968.00	90.310	274.490	7301.42	3274.64	63.96	-3274.14	3.51	
11053.00	90.920	274.440	7300.50	3359.53	70.57	-3358.87	0.72	
11138.00	90.370	273.510	7299.55	3444.45	76.47	-3443.66	1.27	
11223.00	90.400	273.180	7298.98	3529.41	81.43	-3528.51	0.39	
11309.00	91.640	272.990	7297.44	3615.37	86.05	-3614.37	1.46	
11396.00	91.080	273.120	7295.38	3702.31	90.69	-3701.23	0.66	
11481.00	90.980	273.230	7293.85	3787.27	95.40	-3786.08	0.17	
11566.00	89.930	272.530	7293.18	3872.24	99.67	-3870.97	1.48	
11737.00	91.160	273.000	7291.55	4043.20	107.91	-4041.76	0.77	
11822.00	90.710	272.570	7290.16	4128.17	112.04	-4126.65	0.73	
11911.00	89.590	271.630	7289.93	4217.16	115.30	-4215.58	1.64	
11997.00	89.720	271.600	7290.45	4303.16	117.73	-4301.55	0.16	
12169.00	89.780	271.410	7291.20	4475.16	122.25	-4473.49	0.12	
12427.00	89.190	271.140	7293.52	4733.14	127.99	-4731.41	0.25	
12512.00	89.410	272.230	7294.56	4818.13	130.49	-4816.37	1.31	
12683.00	91.070	273.350	7293.84	4989.09	138.81	-4987.16	1.17	
12886.00	92.300	274.250	7287.87	5191.84	152.26	-5189.62	0.75	LAST BHI MWD+IFR SURVEYS
12950.00	92.300	274.250	7285.30	5255.72	156.99	-5253.39	0.00	PROJECTION TO BIT

Actual Wellpath Report

DOUTHIT 41C-27HZ AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: DOUTHIT 41C-27HZ PWB Ref Wellpath: DOUTHIT 41C-27HZ AWB

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	17.00	1254.00	1237.00	17.00	1253.92	0.00	0.00	-10.26	7.32
9.625in Casing Surface	17.00	1244.00	1227.00	17.00	1243.92	0.00	0.00	-10.15	7.29
8.75in Open Hole	1254.00	7767.00	6513.00	1253.92	7292.50	-10.26	7.32	28.51	-75.64
7in Casing Intermediate	17.00	7757.00	7740.00	17.00	7291.61	0.00	0.00	27.51	-65.73
6.125in Open Hole	7767.00	12950.00	5183.00	7292.50	7285.30	28.51	-75.64	156.99	-5253.39

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.26-T3N-R68W HARDLINES (460' SETBACKS)		0.00	0.00	60.06	3150387.54	1316248.25	40°12'00.882"N	104°57'41.803"W	polygon
SEC.26-T3N-R68W SECTION LINES		0.00	0.00	60.06	3150387.54	1316248.25	40°12'00.882"N	104°57'41.803"W	polygon
SEC.27-T3N-R68W HARDLINES (460' SETBACKS)		0.00	0.00	60.06	3150387.54	1316248.25	40°12'00.882"N	104°57'41.803"W	polygon
SEC.27-T3N-R68W SECTION LINES		0.00	0.00	60.06	3150387.54	1316248.25	40°12'00.882"N	104°57'41.803"W	polygon
DOUTHIT 41C-27HZ LAND BOX		7258.00	0.00	0.00	3150327.48	1316247.88	40°12'00.882"N	104°57'42.577"W	polygon
DOUTHIT 41C-27HZ BHL ON PLAT (1315'FNL & 300'FEL, SEC.27) REV-1		7288.00	153.93	-5254.43	3145072.45	1316369.91	40°12'02.398"N	104°58'50.293"W	point

WELLPATH COMPOSITION - Ref Wellbore: DOUTHIT 41C-27HZ PWB Ref Wellpath: DOUTHIT 41C-27HZ AWB

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1162.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <117-1162>	DOUTHIT 41C-27HZ PWB
1162.00	7704.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 8.75" <1287-7704>	DOUTHIT 41C-27HZ PWB
7704.00	12886.00	NaviTrak (IFR)	BHI MWD+IFR SURVEYS 6.125" <7832-12886>	DOUTHIT 41C-27HZ PWB
12886.00	12950.00	Blind Drilling (std)	Projection to bit	DOUTHIT 41C-27HZ PWB

Actual Wellpath Report

DOUTHIT 41C-27HZ AWB

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#19 DOUTHIT 41C-27HZ (1500'FNL & 339'FEL, SEC.26)
Area	COLORADO	Well	DOUTHIT 41C-27HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	DOUTHIT 41C-27HZ PWB
Facility	SEC.26-T3N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
117.00	0.220	99.130	117.00	BEGIN GYRO SURVEYS
1162.00	0.970	154.810	1161.93	TIE-INTO GYRO SURVEYS
1287.00	0.530	178.240	1286.92	BEGIN BHI MWD+IFR SURVEYS
7757.00	84.669	275.768	7291.61	7" CASING POINT
12886.00	92.300	274.250	7287.87	LAST BHI MWD+IFR SURVEYS
12950.00	92.300	274.250	7285.30	PROJECTION TO BIT