

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
 Field: WELD COUNTY (KERR MCGEE) Well: UNDERHILL 16S-8HZ
 Facility: SEC.17-T1N-R67W Wellbore: UNDERHILL 16S-8HZ PWB

Plot reference wellpath is UNDERHILL 16S-8HZ (PERMIT REV-1) PWP

True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 5119 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wiljel02 on 4/8/2013

Location Information

Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SEC.17-T1N-R67W		3163889.720	1261989.210	40°03'03.831"N	104°54'52.408"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)	-1683.35	1668.04	3165568.775	1260316.978	40°02'47.195"N	104°54'30.960"W
XTREME 6 (RKB) to Mud line (At Slot: SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17))					5119ft	
Mean Sea Level to Mud line (At Slot: SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17))					0ft	
XTREME 6 (RKB) to Mean Sea Level					5119ft	

Survey Program

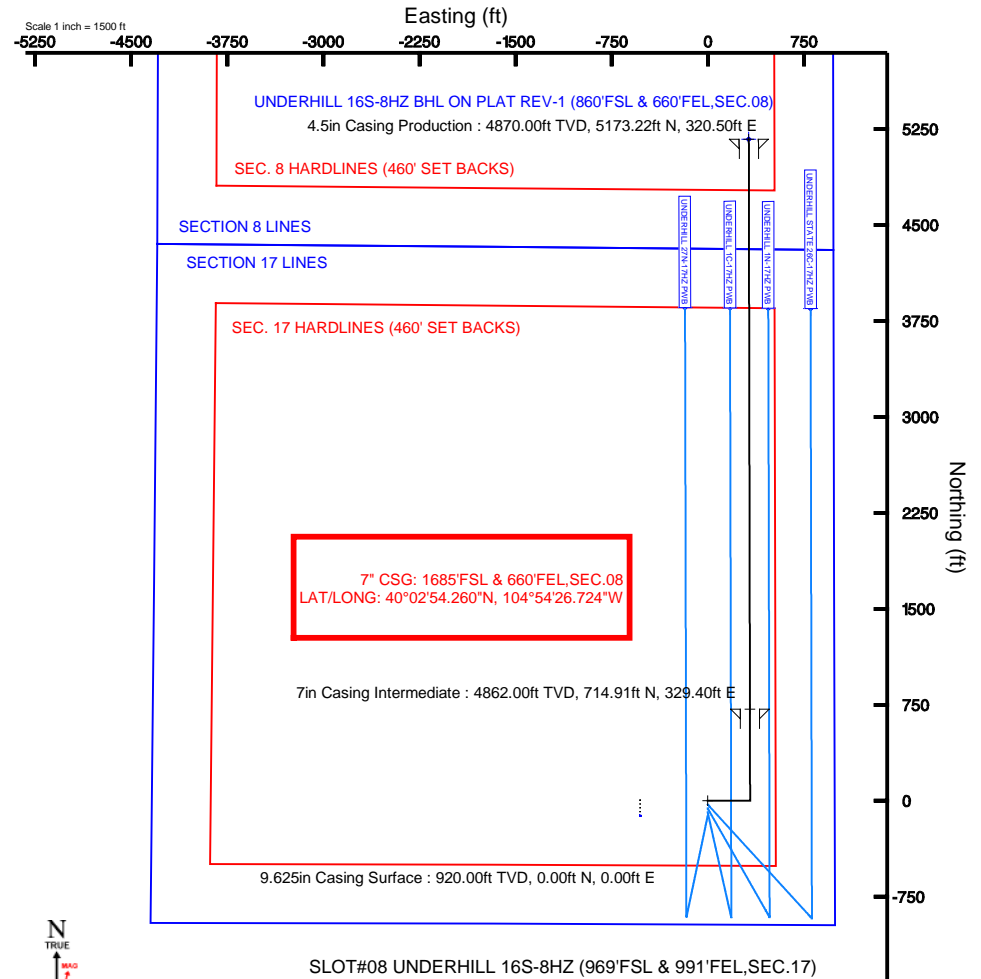
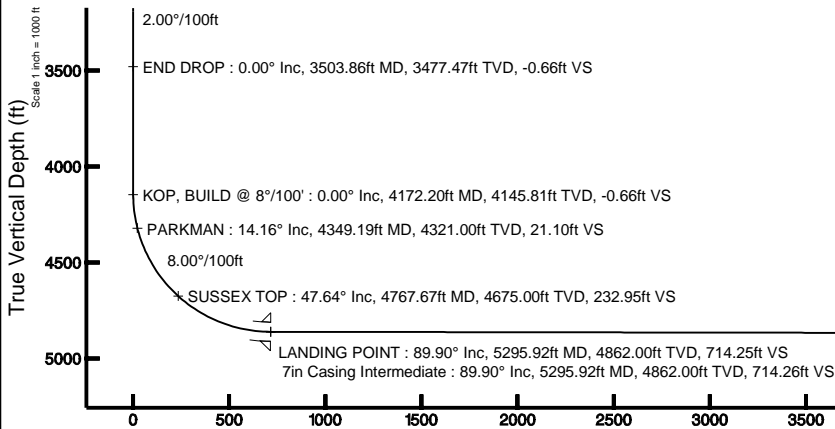
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	5295.92	NavitTrak	NavitTrak (Standard)		UNDERHILL 16S-8HZ PWB
5295.92	9754.25	OnTrak	OnTrak (Standard)		UNDERHILL 16S-8HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE-ON	16.00	0.000	90.000	16.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1100.00	0.000	90.000	1100.00	0.00	0.00	0.00	0.00
END NUDGE	1600.00	10.000	90.000	1597.47	0.00	43.52	2.00	-0.09
BEGIN DROP	3003.86	10.000	90.000	2980.00	0.00	287.30	0.00	-0.57
END DROP	3503.86	0.000	359.886	3477.47	0.00	330.82	2.00	-0.66
KOP, BUILD @ 8°/100'	4172.20	0.000	359.886	4145.81	0.00	330.82	0.00	-0.66
LANDING POINT	5295.92	89.897	359.886	4862.00	714.91	329.40	8.00	714.25
TOTAL DEPTH	9754.25	89.897	359.886	4870.00	5173.22	320.50	0.00	5172.58

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
UNDERHILL 16S-8HZ BHL ON PLAT REV-1 (860'FSL & 660'FEL,SEC.08)	9754.25	4870.00	5173.22	320.50	3165854.76	1265492.02	40°03'38.318"N	104°54'26.838"W
UNDERHILL 15-17 PAD SECTION 17 HARDLINES (460' SET BACKS)	5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	
UNDERHILL 15-17 PAD SECTION 17 LINES	5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	
UNDERHILL 15-17 PAD SECTION 8 HARDLINES (460' SET BACKS)	5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	
UNDERHILL 15-17 PAD SECTION 8 LINES	5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	



BGGM (1945.0 to 2014.0) Dip: 66.66° Field: 52686.6 nT
 Magnetic North is 8.73 degrees East of True North (at 4/2/2013)

To correct azimuth from Magnetic to True add 8.73 degrees
 For example: if the Magnetic North Azimuth = 90 degs, then the True North Azimuth = 90 + 8.73 = 98.73

4.5in Casing Production : 89.90° Inc, 9754.25ft MD, 4870.00ft TVD, 5172.58ft VS
 TOTAL DEPTH : 89.90° Inc, 9754.25ft MD, 4870.00ft TVD, 5172.58ft VS
 UNDERHILL 16S-8HZ BHL ON PLAT REV-1 (860'FSL & 660'FEL,SEC.08)

Vertical Section (ft)
 Azimuth 359.89° with reference 0.00 N, 0.00 E

Scale 1 inch = 1000 ft



Planned Wellpath Report

UNDERHILL 16S-8HZ (PERMIT REV-1) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsjef02
Scale	0.999963	Report Generated	4/8/2013 at 15:29:29
Convergence at slot	0.38° East	Database/Source file	WellArchitectDB/UNDERHILL_16S-8HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1683.35	1668.04	3165568.78	1260316.98	40°02'47.195"N	104°54'30.960"W
Facility Reference Pt			3163889.72	1261989.21	40°03'03.831"N	104°54'52.408"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 6 (RKB) to Facility Vertical Datum	5119.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	5119.00ft
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17))	5119.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.89°



Planned Wellpath Report

UNDERHILL 16S-8HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (108 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	90.000	0.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
16.00	0.000	90.000	16.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	TIE-ON
116.00†	0.000	90.000	116.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
216.00†	0.000	90.000	216.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
316.00†	0.000	90.000	316.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
416.00†	0.000	90.000	416.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
516.00†	0.000	90.000	516.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
616.00†	0.000	90.000	616.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
716.00†	0.000	90.000	716.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
816.00†	0.000	90.000	816.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
916.00†	0.000	90.000	916.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
1016.00†	0.000	90.000	1016.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	
1100.00	0.000	90.000	1100.00	0.00	0.00	0.00	40°02'47.195"N	104°54'30.960"W	0.00	BEGIN NUDGE
1116.00†	0.320	90.000	1116.00	0.00	0.00	0.04	40°02'47.195"N	104°54'30.959"W	2.00	
1216.00†	2.320	90.000	1215.97	0.00	0.00	2.35	40°02'47.195"N	104°54'30.930"W	2.00	
1316.00†	4.320	90.000	1315.80	-0.02	0.00	8.14	40°02'47.195"N	104°54'30.855"W	2.00	
1416.00†	6.320	90.000	1415.36	-0.03	0.00	17.41	40°02'47.195"N	104°54'30.736"W	2.00	
1516.00†	8.320	90.000	1514.54	-0.06	0.00	30.15	40°02'47.195"N	104°54'30.572"W	2.00	
1600.00	10.000	90.000	1597.47	-0.09	0.00	43.52	40°02'47.195"N	104°54'30.400"W	2.00	END NUDGE
1616.00†	10.000	90.000	1613.22	-0.09	0.00	46.30	40°02'47.195"N	104°54'30.365"W	0.00	
1716.00†	10.000	90.000	1711.70	-0.13	0.00	63.67	40°02'47.195"N	104°54'30.141"W	0.00	
1816.00†	10.000	90.000	1810.18	-0.16	0.00	81.03	40°02'47.195"N	104°54'29.918"W	0.00	
1916.00†	10.000	90.000	1908.66	-0.20	0.00	98.40	40°02'47.195"N	104°54'29.695"W	0.00	
2016.00†	10.000	90.000	2007.15	-0.23	0.00	115.76	40°02'47.195"N	104°54'29.472"W	0.00	
2116.00†	10.000	90.000	2105.63	-0.26	0.00	133.13	40°02'47.195"N	104°54'29.248"W	0.00	
2216.00†	10.000	90.000	2204.11	-0.30	0.00	150.49	40°02'47.195"N	104°54'29.025"W	0.00	
2316.00†	10.000	90.000	2302.59	-0.33	0.00	167.85	40°02'47.195"N	104°54'28.802"W	0.00	
2416.00†	10.000	90.000	2401.07	-0.37	0.00	185.22	40°02'47.195"N	104°54'28.578"W	0.00	
2516.00†	10.000	90.000	2499.55	-0.40	0.00	202.58	40°02'47.195"N	104°54'28.355"W	0.00	
2616.00†	10.000	90.000	2598.03	-0.44	0.00	219.95	40°02'47.195"N	104°54'28.132"W	0.00	
2716.00†	10.000	90.000	2696.51	-0.47	0.00	237.31	40°02'47.195"N	104°54'27.909"W	0.00	
2816.00†	10.000	90.000	2794.99	-0.51	0.00	254.68	40°02'47.195"N	104°54'27.685"W	0.00	
2916.00†	10.000	90.000	2893.47	-0.54	0.00	272.04	40°02'47.195"N	104°54'27.462"W	0.00	
3003.86	10.000	90.000	2980.00	-0.57	0.00	287.30	40°02'47.195"N	104°54'27.266"W	0.00	BEGIN DROP
3016.00†	9.757	90.000	2991.96	-0.58	0.00	289.38	40°02'47.195"N	104°54'27.239"W	2.00	
3116.00†	7.757	90.000	3090.79	-0.61	0.00	304.61	40°02'47.195"N	104°54'27.043"W	2.00	
3216.00†	5.757	90.000	3190.09	-0.63	0.00	316.37	40°02'47.195"N	104°54'26.892"W	2.00	
3316.00†	3.757	90.000	3289.74	-0.65	0.00	324.67	40°02'47.195"N	104°54'26.785"W	2.00	
3416.00†	1.757	90.000	3389.62	-0.66	0.00	329.48	40°02'47.195"N	104°54'26.723"W	2.00	
3503.86	0.000	359.886	3477.47	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	2.00	END DROP
3516.00†	0.000	359.886	3489.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
3616.00†	0.000	359.886	3589.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
3716.00†	0.000	359.886	3689.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
3816.00†	0.000	359.886	3789.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
3916.00†	0.000	359.886	3889.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	



Planned Wellpath Report

UNDERHILL 16S-8HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (108 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4016.00†	0.000	359.886	3989.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
4116.00†	0.000	359.886	4089.60	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	
4172.20	0.000	359.886	4145.81	-0.66	0.00	330.82	40°02'47.195"N	104°54'26.706"W	0.00	KOP, BUILD @ 8°/100'
4216.00†	3.504	359.886	4189.58	0.68	1.34	330.82	40°02'47.208"N	104°54'26.706"W	8.00	
4316.00†	11.504	359.886	4288.64	13.73	14.39	330.79	40°02'47.337"N	104°54'26.707"W	8.00	
4349.19†	14.159	359.886	4321.00	21.10	21.76	330.78	40°02'47.410"N	104°54'26.707"W	8.00	PARKMAN
4416.00†	19.504	359.886	4384.92	40.44	41.10	330.74	40°02'47.601"N	104°54'26.707"W	8.00	
4516.00†	27.504	359.886	4476.55	80.29	80.94	330.66	40°02'47.995"N	104°54'26.708"W	8.00	
4616.00†	35.504	359.886	4561.74	132.50	133.16	330.56	40°02'48.511"N	104°54'26.710"W	8.00	
4716.00†	43.504	359.886	4638.84	196.06	196.72	330.43	40°02'49.139"N	104°54'26.711"W	8.00	
4767.67†	47.637	359.886	4675.00	232.95	233.61	330.36	40°02'49.504"N	104°54'26.712"W	8.00	SUSSEX TOP
4816.00†	51.504	359.886	4706.34	269.73	270.39	330.28	40°02'49.867"N	104°54'26.713"W	8.00	
4916.00†	59.504	359.886	4762.93	352.08	352.74	330.12	40°02'50.681"N	104°54'26.715"W	8.00	
5016.00†	67.504	359.886	4807.50	441.51	442.16	329.94	40°02'51.565"N	104°54'26.717"W	8.00	
5116.00†	75.504	359.886	4839.20	536.26	536.92	329.75	40°02'52.501"N	104°54'26.720"W	8.00	
5216.00†	83.504	359.886	4857.40	634.51	635.17	329.56	40°02'53.472"N	104°54'26.722"W	8.00	
5295.92	89.897	359.886	4862.00	714.25	714.91	329.40	40°02'54.260"N	104°54'26.724"W	8.00	LANDING POINT
5316.00†	89.897	359.886	4862.04	734.34	734.99	329.36	40°02'54.458"N	104°54'26.725"W	0.00	
5416.00†	89.897	359.886	4862.22	834.34	834.99	329.16	40°02'55.447"N	104°54'26.727"W	0.00	
5516.00†	89.897	359.886	4862.40	934.34	934.99	328.96	40°02'56.435"N	104°54'26.730"W	0.00	
5616.00†	89.897	359.886	4862.58	1034.34	1034.99	328.76	40°02'57.423"N	104°54'26.733"W	0.00	
5716.00†	89.897	359.886	4862.76	1134.34	1134.99	328.56	40°02'58.411"N	104°54'26.735"W	0.00	
5816.00†	89.897	359.886	4862.93	1234.34	1234.99	328.36	40°02'59.399"N	104°54'26.738"W	0.00	
5916.00†	89.897	359.886	4863.11	1334.34	1334.99	328.16	40°03'00.388"N	104°54'26.740"W	0.00	
6016.00†	89.897	359.886	4863.29	1434.34	1434.99	327.96	40°03'01.376"N	104°54'26.743"W	0.00	
6116.00†	89.897	359.886	4863.47	1534.34	1534.99	327.76	40°03'02.364"N	104°54'26.745"W	0.00	
6216.00†	89.897	359.886	4863.65	1634.34	1634.99	327.56	40°03'03.352"N	104°54'26.748"W	0.00	
6316.00†	89.897	359.886	4863.83	1734.33	1734.99	327.36	40°03'04.341"N	104°54'26.750"W	0.00	
6416.00†	89.897	359.886	4864.01	1834.33	1834.99	327.16	40°03'05.329"N	104°54'26.753"W	0.00	
6516.00†	89.897	359.886	4864.19	1934.33	1934.99	326.96	40°03'06.317"N	104°54'26.755"W	0.00	
6616.00†	89.897	359.886	4864.37	2034.33	2034.99	326.76	40°03'07.305"N	104°54'26.758"W	0.00	
6716.00†	89.897	359.886	4864.55	2134.33	2134.99	326.56	40°03'08.293"N	104°54'26.761"W	0.00	
6816.00†	89.897	359.886	4864.73	2234.33	2234.99	326.36	40°03'09.282"N	104°54'26.763"W	0.00	
6916.00†	89.897	359.886	4864.91	2334.33	2334.99	326.17	40°03'10.270"N	104°54'26.766"W	0.00	
7016.00†	89.897	359.886	4865.09	2434.33	2434.99	325.97	40°03'11.258"N	104°54'26.768"W	0.00	
7116.00†	89.897	359.886	4865.27	2534.33	2534.99	325.77	40°03'12.246"N	104°54'26.771"W	0.00	
7216.00†	89.897	359.886	4865.45	2634.33	2634.99	325.57	40°03'13.235"N	104°54'26.773"W	0.00	
7316.00†	89.897	359.886	4865.63	2734.33	2734.99	325.37	40°03'14.223"N	104°54'26.776"W	0.00	
7416.00†	89.897	359.886	4865.81	2834.33	2834.99	325.17	40°03'15.211"N	104°54'26.778"W	0.00	
7516.00†	89.897	359.886	4865.98	2934.33	2934.99	324.97	40°03'16.199"N	104°54'26.781"W	0.00	
7616.00†	89.897	359.886	4866.16	3034.33	3034.99	324.77	40°03'17.187"N	104°54'26.783"W	0.00	
7716.00†	89.897	359.886	4866.34	3134.33	3134.98	324.57	40°03'18.176"N	104°54'26.786"W	0.00	
7816.00†	89.897	359.886	4866.52	3234.33	3234.98	324.37	40°03'19.164"N	104°54'26.789"W	0.00	
7916.00†	89.897	359.886	4866.70	3334.33	3334.98	324.17	40°03'20.152"N	104°54'26.791"W	0.00	
8016.00†	89.897	359.886	4866.88	3434.33	3434.98	323.97	40°03'21.140"N	104°54'26.794"W	0.00	



Planned Wellpath Report

UNDERHILL 16S-8HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH DATA (108 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8116.00†	89.897	359.886	4867.06	3534.33	3534.98	323.77	40°03'22.129"N	104°54'26.796"W	0.00	
8216.00†	89.897	359.886	4867.24	3634.33	3634.98	323.57	40°03'23.117"N	104°54'26.799"W	0.00	
8316.00†	89.897	359.886	4867.42	3734.33	3734.98	323.37	40°03'24.105"N	104°54'26.801"W	0.00	
8416.00†	89.897	359.886	4867.60	3834.33	3834.98	323.17	40°03'25.093"N	104°54'26.804"W	0.00	
8516.00†	89.897	359.886	4867.78	3934.33	3934.98	322.97	40°03'26.081"N	104°54'26.806"W	0.00	
8616.00†	89.897	359.886	4867.96	4034.33	4034.98	322.77	40°03'27.070"N	104°54'26.809"W	0.00	
8716.00†	89.897	359.886	4868.14	4134.33	4134.98	322.57	40°03'28.058"N	104°54'26.812"W	0.00	
8816.00†	89.897	359.886	4868.32	4234.33	4234.98	322.37	40°03'29.046"N	104°54'26.814"W	0.00	
8916.00†	89.897	359.886	4868.50	4334.33	4334.98	322.18	40°03'30.034"N	104°54'26.817"W	0.00	
9016.00†	89.897	359.886	4868.68	4434.33	4434.98	321.98	40°03'31.022"N	104°54'26.819"W	0.00	
9116.00†	89.897	359.886	4868.85	4534.33	4534.98	321.78	40°03'32.011"N	104°54'26.822"W	0.00	
9216.00†	89.897	359.886	4869.03	4634.33	4634.98	321.58	40°03'32.999"N	104°54'26.824"W	0.00	
9316.00†	89.897	359.886	4869.21	4734.33	4734.98	321.38	40°03'33.987"N	104°54'26.827"W	0.00	
9416.00†	89.897	359.886	4869.39	4834.33	4834.98	321.18	40°03'34.975"N	104°54'26.829"W	0.00	
9516.00†	89.897	359.886	4869.57	4934.33	4934.98	320.98	40°03'35.964"N	104°54'26.832"W	0.00	
9616.00†	89.897	359.886	4869.75	5034.33	5034.98	320.78	40°03'36.952"N	104°54'26.834"W	0.00	
9716.00†	89.897	359.886	4869.93	5134.33	5134.98	320.58	40°03'37.940"N	104°54'26.837"W	0.00	
9754.25	89.897	359.886	4870.00 ¹	5172.58	5173.22	320.50	40°03'38.318"N	104°54'26.838"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: UNDERHILL 16S-8HZ PWB Ref Wellpath: UNDERHILL 16S-8HZ (PERMIT REV-1) PWP									
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	920.00	904.00	16.00	920.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	16.00	920.00	904.00	16.00	920.00	0.00	0.00	0.00	0.00
8.75in Open Hole	920.00	5295.92	4375.92	920.00	4862.00	0.00	0.00	714.91	329.40
7in Casing Intermediate	16.00	5295.92	5279.92	16.00	4862.00	0.00	0.00	714.91	329.40
6.125in Open Hole	5295.92	9754.25	4458.33	4862.00	4870.00	714.91	329.40	5173.22	320.50
4.5in Casing Production	16.00	9754.25	9738.25	16.00	4870.00	0.00	0.00	5173.22	320.50



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UNDERHILL 16S-8HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) UNDERHILL 16S-8HZ BHL ON PLAT REV-1 (860'FSL & 660'FEL,SEC.08)	9754.25	4870.00	5173.22	320.50	3165854.76	1265492.02	40°03'38.318"N	104°54'26.838"W	point
UNDERHILL 15-17 PAD SECTION 17 HARDLINES (460' SET BACKS)		5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon
UNDERHILL 15-17 PAD SECTION 17 LINES		5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon
UNDERHILL 15-17 PAD SECTION 8 HARDLINES (460' SET BACKS)		5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon
UNDERHILL 15-17 PAD SECTION 8 LINES		5119.00	-116.95	-528.87	3165040.71	1260196.51	40°02'46.039"N	104°54'37.760"W	polygon

SURVEY PROGRAM - Ref Wellbore: UNDERHILL 16S-8HZ PWB Ref Wellpath: UNDERHILL 16S-8HZ (PERMIT REV-1) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	5295.92	NaviTrak (Standard)		UNDERHILL 16S-8HZ PWB
5295.92	9754.25	OnTrak (Standard)		UNDERHILL 16S-8HZ PWB



Planned Wellpath Report
 UNDERHILL 16S-8HZ (PERMIT REV-1) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 UNDERHILL 16S-8HZ (969'FSL & 991'FEL,SEC.17)
Area	COLORADO	Well	UNDERHILL 16S-8HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	UNDERHILL 16S-8HZ PWB
Facility	SEC.17-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
4349.19	14.159	359.886	4321.00	PARKMAN
4767.67	47.637	359.886	4675.00	SUSSEX TOP