

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Field: WELD COUNTY (KERR MCGEE) Well: Bearfoot State 40N-36HZ
Facility: SEC.35-T3N-R68W Wellbore: Bearfoot State 40N-36HZ PWB

Plot reference wellpath is Bearfoot State 40N-36HZ (PERMIT REV-1)

True vertical depths are referenced to PERMIT (17 KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to PERMIT (17 KB) (RKB)	North Reference: True north
PERMIT (17 KB) (RKB) to Mean Sea Level: 4878 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 19/Sep/2013

Location Information

Facility Name			Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.35-T3N-R68W			3146467.095	1310900.670	40°11'08.268"N	104°58'32.736"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)	-1963.56	-683.20	3145795.549	1308933.193	40°10'48.864"N	104°58'41.538"W
PERMIT (17 KB) (RKB) to Mud line (At Slot: Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35))					4878ft	
Mean Sea Level to Mud line (At Slot: Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35))					0ft	
PERMIT (17 KB) (RKB) to Mean Sea Level					4878ft	



Well Profile Data

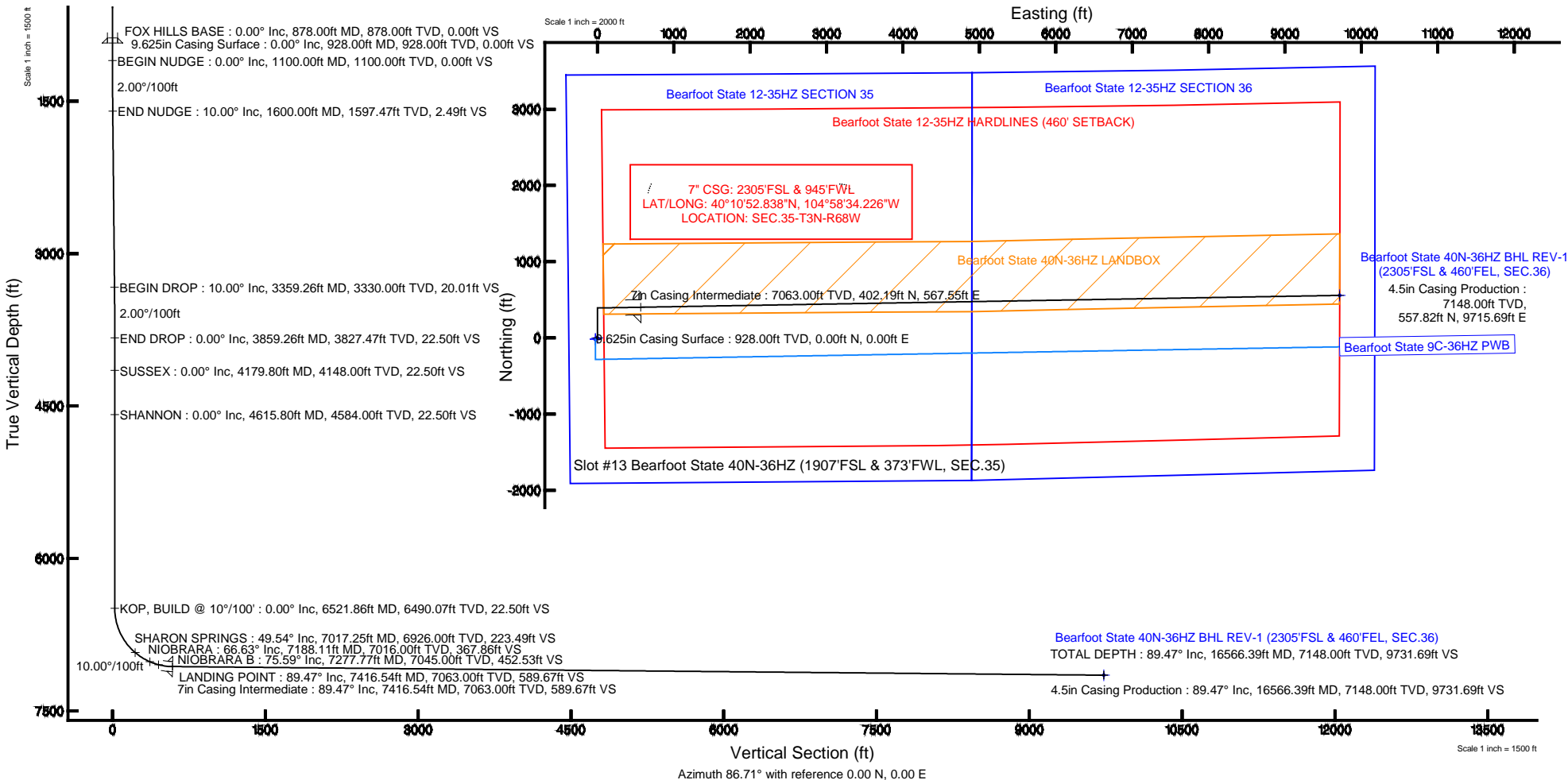
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE ON	17.00	0.000	0.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1100.00	0.000	0.000	1100.00	0.00	0.00	0.00	0.00
END NUDGE	1600.00	10.000	0.000	1597.47	43.52	0.00	2.00	2.49
BEGIN DROP	3359.26	10.000	0.000	3330.00	349.02	0.00	0.00	20.01
END DROP	3859.26	0.000	89.025	3827.47	392.54	0.00	2.00	22.50
KOP, BUILD @ 10°/100'	6521.86	0.000	89.025	6490.07	392.54	0.00	0.00	22.50
LANDING POINT	7416.54	89.468	89.025	7063.00	402.19	567.55	10.00	589.67
TOTAL DEPTH	16566.39	89.468	89.025	7148.00	557.82	9715.69	0.00	9731.69

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
Bearfoot State 40N-36HZ BHL REV-1 (2305'FSL & 460'FEL, SEC.36)	16566.39	7148.00	557.82	9715.69	3155507.36	1309548.15	40°10'54.358"N	104°58'36.362"W
Bearfoot State 40N-36HZ LANDBOX		7148.00	0.00	0.00	3145795.55	1308933.19	40°10'48.864"N	104°58'41.538"W
Bearfoot State 12-35HZ HARDLINES (460' SETBACK)		7343.00	-17.10	-34.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W
Bearfoot State 12-35HZ SECTION 35		7343.00	-17.10	-34.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W
Bearfoot State 12-36HZ SECTION 36		7343.00	-17.10	-34.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7416.54	NaviTrak	NaviTrak (Standard)		Bearfoot State 40N-36HZ PWB
7416.54	16566.39	OnTrak	OnTrak (Standard)		Bearfoot State 40N-36HZ PWB





Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-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	Robiale01
Scale	0.999958	Report Generated	19/Sep/2013 at 15:14
Convergence at slot	n/a	Database/Source file	WellArchitectDB/Bearfoot_State_40N-36HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1963.56	-683.20	3145795.55	1308933.19	40°10'48.864"N	104°58'41.538"W
Facility Reference Pt			3146467.10	1310900.67	40°11'08.268"N	104°58'32.736"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17' KB) (RKB) to Facility Vertical Datum	4878.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	4878.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35))	4878.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	86.71°



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Bearfoot State 40N-36HZ (PERMIT REV-1)

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Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

WELLPATH DATA (180 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	0.000	0.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
17.00	0.000	0.000	17.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	TIE ON
117.00†	0.000	0.000	117.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
217.00†	0.000	0.000	217.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
317.00†	0.000	0.000	317.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
417.00†	0.000	0.000	417.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
517.00†	0.000	0.000	517.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
617.00†	0.000	0.000	617.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
717.00†	0.000	0.000	717.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
817.00†	0.000	0.000	817.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
878.00†	0.000	0.000	878.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	FOX HILLS BASE
917.00†	0.000	0.000	917.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
1017.00†	0.000	0.000	1017.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	
1100.00	0.000	0.000	1100.00	0.00	0.00	0.00	40°10'48.864"N	104°58'41.538"W	0.00	BEGIN NUDGE
1117.00†	0.340	0.000	1117.00	0.00	0.05	0.00	40°10'48.864"N	104°58'41.538"W	2.00	
1217.00†	2.340	0.000	1216.97	0.14	2.39	0.00	40°10'48.888"N	104°58'41.538"W	2.00	
1317.00†	4.340	0.000	1316.79	0.47	8.21	0.00	40°10'48.945"N	104°58'41.538"W	2.00	
1417.00†	6.340	0.000	1416.35	1.00	17.52	0.00	40°10'49.037"N	104°58'41.538"W	2.00	
1517.00†	8.340	0.000	1515.53	1.74	30.30	0.00	40°10'49.163"N	104°58'41.538"W	2.00	
1600.00	10.000	0.000	1597.47	2.49	43.52	0.00	40°10'49.294"N	104°58'41.538"W	2.00	END NUDGE
1617.00†	10.000	0.000	1614.21	2.66	46.47	0.00	40°10'49.323"N	104°58'41.538"W	0.00	
1717.00†	10.000	0.000	1712.69	3.66	63.84	0.00	40°10'49.495"N	104°58'41.538"W	0.00	
1817.00†	10.000	0.000	1811.17	4.65	81.20	0.00	40°10'49.666"N	104°58'41.538"W	0.00	
1917.00†	10.000	0.000	1909.65	5.65	98.57	0.00	40°10'49.838"N	104°58'41.538"W	0.00	
2017.00†	10.000	0.000	2008.13	6.65	115.93	0.00	40°10'50.010"N	104°58'41.538"W	0.00	
2117.00†	10.000	0.000	2106.61	7.64	133.30	0.00	40°10'50.181"N	104°58'41.538"W	0.00	
2217.00†	10.000	0.000	2205.09	8.64	150.66	0.00	40°10'50.353"N	104°58'41.538"W	0.00	
2317.00†	10.000	0.000	2303.57	9.63	168.03	0.00	40°10'50.524"N	104°58'41.538"W	0.00	
2417.00†	10.000	0.000	2402.05	10.63	185.39	0.00	40°10'50.696"N	104°58'41.538"W	0.00	
2517.00†	10.000	0.000	2500.53	11.62	202.76	0.00	40°10'50.868"N	104°58'41.538"W	0.00	
2617.00†	10.000	0.000	2599.01	12.62	220.12	0.00	40°10'51.039"N	104°58'41.538"W	0.00	
2717.00†	10.000	0.000	2697.50	13.61	237.49	0.00	40°10'51.211"N	104°58'41.538"W	0.00	
2817.00†	10.000	0.000	2795.98	14.61	254.85	0.00	40°10'51.382"N	104°58'41.538"W	0.00	
2917.00†	10.000	0.000	2894.46	15.60	272.22	0.00	40°10'51.554"N	104°58'41.538"W	0.00	
3017.00†	10.000	0.000	2992.94	16.60	289.58	0.00	40°10'51.726"N	104°58'41.538"W	0.00	
3117.00†	10.000	0.000	3091.42	17.59	306.95	0.00	40°10'51.897"N	104°58'41.538"W	0.00	
3217.00†	10.000	0.000	3189.90	18.59	324.31	0.00	40°10'52.069"N	104°58'41.538"W	0.00	
3317.00†	10.000	0.000	3288.38	19.59	341.68	0.00	40°10'52.240"N	104°58'41.538"W	0.00	
3359.26	10.000	0.000	3330.00	20.01	349.02	0.00	40°10'52.313"N	104°58'41.538"W	0.00	BEGIN DROP
3417.00†	8.845	0.000	3386.96	20.55	358.47	0.00	40°10'52.406"N	104°58'41.538"W	2.00	
3517.00†	6.845	0.000	3486.02	21.33	372.12	0.00	40°10'52.541"N	104°58'41.538"W	2.00	
3617.00†	4.845	0.000	3585.49	21.91	382.30	0.00	40°10'52.642"N	104°58'41.538"W	2.00	
3717.00†	2.845	0.000	3685.26	22.30	389.01	0.00	40°10'52.708"N	104°58'41.538"W	2.00	
3817.00†	0.845	0.000	3785.21	22.48	392.23	0.00	40°10'52.740"N	104°58'41.538"W	2.00	
3859.26	0.000	89.025	3827.47	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	2.00	END DROP



Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3917.00†	0.000	89.025	3885.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4017.00†	0.000	89.025	3985.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4117.00†	0.000	89.025	4085.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4179.80†	0.000	89.025	4148.00	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	SUSSEX
4217.00†	0.000	89.025	4185.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4317.00†	0.000	89.025	4285.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4417.00†	0.000	89.025	4385.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4517.00†	0.000	89.025	4485.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4615.80†	0.000	89.025	4584.00	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	SHANNON
4617.00†	0.000	89.025	4585.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4717.00†	0.000	89.025	4685.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4817.00†	0.000	89.025	4785.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
4917.00†	0.000	89.025	4885.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5017.00†	0.000	89.025	4985.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5117.00†	0.000	89.025	5085.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5217.00†	0.000	89.025	5185.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5317.00†	0.000	89.025	5285.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5417.00†	0.000	89.025	5385.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5517.00†	0.000	89.025	5485.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5617.00†	0.000	89.025	5585.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5717.00†	0.000	89.025	5685.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5817.00†	0.000	89.025	5785.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
5917.00†	0.000	89.025	5885.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6017.00†	0.000	89.025	5985.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6117.00†	0.000	89.025	6085.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6217.00†	0.000	89.025	6185.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6317.00†	0.000	89.025	6285.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6417.00†	0.000	89.025	6385.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6517.00†	0.000	89.025	6485.20	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	
6521.86	0.000	89.025	6490.07	22.50	392.54	0.00	40°10'52.743"N	104°58'41.538"W	0.00	KOP, BUILD @ 10°/100'
6617.00†	9.514	89.025	6584.77	30.37	392.67	7.88	40°10'52.744"N	104°58'41.436"W	10.00	
6717.00†	19.514	89.025	6681.45	55.38	393.10	32.91	40°10'52.749"N	104°58'41.114"W	10.00	
6817.00†	29.514	89.025	6772.32	96.79	393.80	74.34	40°10'52.756"N	104°58'40.580"W	10.00	
6917.00†	39.514	89.025	6854.62	153.33	394.76	130.92	40°10'52.765"N	104°58'39.851"W	10.00	
7017.00†	49.514	89.025	6925.84	223.29	395.96	200.93	40°10'52.777"N	104°58'38.949"W	10.00	
7017.25†	49.539	89.025	6926.00	223.49	395.96	201.12	40°10'52.777"N	104°58'38.947"W	10.00	SHARON SPRINGS
7117.00†	59.514	89.025	6983.81	304.55	397.34	282.24	40°10'52.790"N	104°58'37.902"W	10.00	
7188.11†	66.625	89.025	7016.00	367.86	398.42	345.59	40°10'52.801"N	104°58'37.085"W	10.00	NIORARA
7217.00†	69.514	89.025	7026.79	394.63	398.87	372.38	40°10'52.806"N	104°58'36.740"W	10.00	
7277.77†	75.591	89.025	7045.00	452.53	399.86	430.32	40°10'52.815"N	104°58'35.994"W	10.00	NIORARA B
7317.00†	79.514	89.025	7053.45	490.80	400.51	468.61	40°10'52.822"N	104°58'35.500"W	10.00	
7416.54	89.468	89.025	7063.00	589.67	402.19	567.55	40°10'52.838"N	104°58'34.226"W	10.00	LANDING POINT
7417.00†	89.468	89.025	7063.00	590.13	402.20	568.01	40°10'52.838"N	104°58'34.220"W	0.00	
7517.00†	89.468	89.025	7063.93	690.05	403.90	668.00	40°10'52.855"N	104°58'32.932"W	0.00	
7617.00†	89.468	89.025	7064.86	789.96	405.60	767.98	40°10'52.872"N	104°58'31.644"W	0.00	



Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	89.468	89.025	7065.79	889.88	407.30	867.96	40°10'52.889"N	104°58'30.355"W	0.00	
7817.00†	89.468	89.025	7066.72	989.79	409.00	967.94	40°10'52.906"N	104°58'29.067"W	0.00	
7917.00†	89.468	89.025	7067.65	1089.71	410.71	1067.92	40°10'52.922"N	104°58'27.779"W	0.00	
8017.00†	89.468	89.025	7068.58	1189.62	412.41	1167.90	40°10'52.939"N	104°58'26.491"W	0.00	
8117.00†	89.468	89.025	7069.51	1289.53	414.11	1267.88	40°10'52.956"N	104°58'25.203"W	0.00	
8217.00†	89.468	89.025	7070.43	1389.45	415.81	1367.86	40°10'52.973"N	104°58'23.915"W	0.00	
8317.00†	89.468	89.025	7071.36	1489.36	417.51	1467.84	40°10'52.989"N	104°58'22.627"W	0.00	
8417.00†	89.468	89.025	7072.29	1589.28	419.21	1567.83	40°10'53.006"N	104°58'21.338"W	0.00	
8517.00†	89.468	89.025	7073.22	1689.19	420.91	1667.81	40°10'53.023"N	104°58'20.050"W	0.00	
8617.00†	89.468	89.025	7074.15	1789.11	422.61	1767.79	40°10'53.040"N	104°58'18.762"W	0.00	
8717.00†	89.468	89.025	7075.08	1889.02	424.31	1867.77	40°10'53.056"N	104°58'17.474"W	0.00	
8817.00†	89.468	89.025	7076.01	1988.93	426.01	1967.75	40°10'53.073"N	104°58'16.186"W	0.00	
8917.00†	89.468	89.025	7076.94	2088.85	427.71	2067.73	40°10'53.090"N	104°58'14.898"W	0.00	
9017.00†	89.468	89.025	7077.87	2188.76	429.42	2167.71	40°10'53.107"N	104°58'13.610"W	0.00	
9117.00†	89.468	89.025	7078.80	2288.68	431.12	2267.69	40°10'53.123"N	104°58'12.321"W	0.00	
9217.00†	89.468	89.025	7079.72	2388.59	432.82	2367.68	40°10'53.140"N	104°58'11.033"W	0.00	
9317.00†	89.468	89.025	7080.65	2488.51	434.52	2467.66	40°10'53.157"N	104°58'09.745"W	0.00	
9417.00†	89.468	89.025	7081.58	2588.42	436.22	2567.64	40°10'53.173"N	104°58'08.457"W	0.00	
9517.00†	89.468	89.025	7082.51	2688.34	437.92	2667.62	40°10'53.190"N	104°58'07.169"W	0.00	
9617.00†	89.468	89.025	7083.44	2788.25	439.62	2767.60	40°10'53.207"N	104°58'05.881"W	0.00	
9717.00†	89.468	89.025	7084.37	2888.16	441.32	2867.58	40°10'53.224"N	104°58'04.593"W	0.00	
9817.00†	89.468	89.025	7085.30	2988.08	443.02	2967.56	40°10'53.240"N	104°58'03.304"W	0.00	
9917.00†	89.468	89.025	7086.23	3087.99	444.72	3067.54	40°10'53.257"N	104°58'02.016"W	0.00	
10017.00†	89.468	89.025	7087.16	3187.91	446.42	3167.53	40°10'53.274"N	104°58'00.728"W	0.00	
10117.00†	89.468	89.025	7088.09	3287.82	448.13	3267.51	40°10'53.290"N	104°57'59.440"W	0.00	
10217.00†	89.468	89.025	7089.01	3387.74	449.83	3367.49	40°10'53.307"N	104°57'58.152"W	0.00	
10317.00†	89.468	89.025	7089.94	3487.65	451.53	3467.47	40°10'53.324"N	104°57'56.864"W	0.00	
10417.00†	89.468	89.025	7090.87	3587.56	453.23	3567.45	40°10'53.340"N	104°57'55.576"W	0.00	
10517.00†	89.468	89.025	7091.80	3687.48	454.93	3667.43	40°10'53.357"N	104°57'54.288"W	0.00	
10617.00†	89.468	89.025	7092.73	3787.39	456.63	3767.41	40°10'53.374"N	104°57'52.999"W	0.00	
10717.00†	89.468	89.025	7093.66	3887.31	458.33	3867.39	40°10'53.390"N	104°57'51.711"W	0.00	
10817.00†	89.468	89.025	7094.59	3987.22	460.03	3967.38	40°10'53.407"N	104°57'50.423"W	0.00	
10917.00†	89.468	89.025	7095.52	4087.14	461.73	4067.36	40°10'53.424"N	104°57'49.135"W	0.00	
11017.00†	89.468	89.025	7096.45	4187.05	463.43	4167.34	40°10'53.440"N	104°57'47.847"W	0.00	
11117.00†	89.468	89.025	7097.38	4286.96	465.13	4267.32	40°10'53.457"N	104°57'46.559"W	0.00	
11217.00†	89.468	89.025	7098.30	4386.88	466.84	4367.30	40°10'53.473"N	104°57'45.271"W	0.00	
11317.00†	89.468	89.025	7099.23	4486.79	468.54	4467.28	40°10'53.490"N	104°57'43.982"W	0.00	
11417.00†	89.468	89.025	7100.16	4586.71	470.24	4567.26	40°10'53.507"N	104°57'42.694"W	0.00	
11517.00†	89.468	89.025	7101.09	4686.62	471.94	4667.24	40°10'53.523"N	104°57'41.406"W	0.00	
11617.00†	89.468	89.025	7102.02	4786.54	473.64	4767.23	40°10'53.540"N	104°57'40.118"W	0.00	
11717.00†	89.468	89.025	7102.95	4886.45	475.34	4867.21	40°10'53.557"N	104°57'38.830"W	0.00	
11817.00†	89.468	89.025	7103.88	4986.36	477.04	4967.19	40°10'53.573"N	104°57'37.542"W	0.00	
11917.00†	89.468	89.025	7104.81	5086.28	478.74	5067.17	40°10'53.590"N	104°57'36.253"W	0.00	
12017.00†	89.468	89.025	7105.74	5186.19	480.44	5167.15	40°10'53.606"N	104°57'34.965"W	0.00	
12117.00†	89.468	89.025	7106.67	5286.11	482.14	5267.13	40°10'53.623"N	104°57'33.677"W	0.00	



Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

WELLPATH DATA (180 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	89.468	89.025	7107.59	5386.02	483.84	5367.11	40°10'53.640"N	104°57'32.389"W	0.00	
12317.00†	89.468	89.025	7108.52	5485.94	485.55	5467.09	40°10'53.656"N	104°57'31.101"W	0.00	
12417.00†	89.468	89.025	7109.45	5585.85	487.25	5567.07	40°10'53.673"N	104°57'29.813"W	0.00	
12517.00†	89.468	89.025	7110.38	5685.77	488.95	5667.06	40°10'53.689"N	104°57'28.525"W	0.00	
12617.00†	89.468	89.025	7111.31	5785.68	490.65	5767.04	40°10'53.706"N	104°57'27.236"W	0.00	
12717.00†	89.468	89.025	7112.24	5885.59	492.35	5867.02	40°10'53.723"N	104°57'25.948"W	0.00	
12817.00†	89.468	89.025	7113.17	5985.51	494.05	5967.00	40°10'53.739"N	104°57'24.660"W	0.00	
12917.00†	89.468	89.025	7114.10	6085.42	495.75	6066.98	40°10'53.756"N	104°57'23.372"W	0.00	
13017.00†	89.468	89.025	7115.03	6185.34	497.45	6166.96	40°10'53.772"N	104°57'22.084"W	0.00	
13117.00†	89.468	89.025	7115.96	6285.25	499.15	6266.94	40°10'53.789"N	104°57'20.796"W	0.00	
13217.00†	89.468	89.025	7116.88	6385.17	500.85	6366.92	40°10'53.805"N	104°57'19.508"W	0.00	
13317.00†	89.468	89.025	7117.81	6485.08	502.55	6466.91	40°10'53.822"N	104°57'18.219"W	0.00	
13417.00†	89.468	89.025	7118.74	6584.99	504.26	6566.89	40°10'53.838"N	104°57'16.931"W	0.00	
13517.00†	89.468	89.025	7119.67	6684.91	505.96	6666.87	40°10'53.855"N	104°57'15.643"W	0.00	
13617.00†	89.468	89.025	7120.60	6784.82	507.66	6766.85	40°10'53.872"N	104°57'14.355"W	0.00	
13717.00†	89.468	89.025	7121.53	6884.74	509.36	6866.83	40°10'53.888"N	104°57'13.067"W	0.00	
13817.00†	89.468	89.025	7122.46	6984.65	511.06	6966.81	40°10'53.905"N	104°57'11.779"W	0.00	
13917.00†	89.468	89.025	7123.39	7084.57	512.76	7066.79	40°10'53.921"N	104°57'10.491"W	0.00	
14017.00†	89.468	89.025	7124.32	7184.48	514.46	7166.77	40°10'53.938"N	104°57'09.202"W	0.00	
14117.00†	89.468	89.025	7125.25	7284.39	516.16	7266.76	40°10'53.954"N	104°57'07.914"W	0.00	
14217.00†	89.468	89.025	7126.17	7384.31	517.86	7366.74	40°10'53.971"N	104°57'06.626"W	0.00	
14317.00†	89.468	89.025	7127.10	7484.22	519.56	7466.72	40°10'53.987"N	104°57'05.338"W	0.00	
14417.00†	89.468	89.025	7128.03	7584.14	521.26	7566.70	40°10'54.004"N	104°57'04.050"W	0.00	
14517.00†	89.468	89.025	7128.96	7684.05	522.97	7666.68	40°10'54.020"N	104°57'02.762"W	0.00	
14617.00†	89.468	89.025	7129.89	7783.97	524.67	7766.66	40°10'54.037"N	104°57'01.474"W	0.00	
14717.00†	89.468	89.025	7130.82	7883.88	526.37	7866.64	40°10'54.053"N	104°57'00.185"W	0.00	
14817.00†	89.468	89.025	7131.75	7983.79	528.07	7966.62	40°10'54.070"N	104°56'58.897"W	0.00	
14917.00†	89.468	89.025	7132.68	8083.71	529.77	8066.61	40°10'54.086"N	104°56'57.609"W	0.00	
15017.00†	89.468	89.025	7133.61	8183.62	531.47	8166.59	40°10'54.103"N	104°56'56.321"W	0.00	
15117.00†	89.468	89.025	7134.54	8283.54	533.17	8266.57	40°10'54.119"N	104°56'55.033"W	0.00	
15217.00†	89.468	89.025	7135.46	8383.45	534.87	8366.55	40°10'54.136"N	104°56'53.745"W	0.00	
15317.00†	89.468	89.025	7136.39	8483.37	536.57	8466.53	40°10'54.152"N	104°56'52.456"W	0.00	
15417.00†	89.468	89.025	7137.32	8583.28	538.27	8566.51	40°10'54.169"N	104°56'51.168"W	0.00	
15517.00†	89.468	89.025	7138.25	8683.19	539.97	8666.49	40°10'54.185"N	104°56'49.880"W	0.00	
15617.00†	89.468	89.025	7139.18	8783.11	541.68	8766.47	40°10'54.202"N	104°56'48.592"W	0.00	
15717.00†	89.468	89.025	7140.11	8883.02	543.38	8866.45	40°10'54.218"N	104°56'47.304"W	0.00	
15817.00†	89.468	89.025	7141.04	8982.94	545.08	8966.44	40°10'54.234"N	104°56'46.016"W	0.00	
15917.00†	89.468	89.025	7141.97	9082.85	546.78	9066.42	40°10'54.251"N	104°56'44.728"W	0.00	
16017.00†	89.468	89.025	7142.90	9182.77	548.48	9166.40	40°10'54.267"N	104°56'43.439"W	0.00	
16117.00†	89.468	89.025	7143.83	9282.68	550.18	9266.38	40°10'54.284"N	104°56'42.151"W	0.00	
16217.00†	89.468	89.025	7144.75	9382.60	551.88	9366.36	40°10'54.300"N	104°56'40.863"W	0.00	
16317.00†	89.468	89.025	7145.68	9482.51	553.58	9466.34	40°10'54.317"N	104°56'39.575"W	0.00	
16417.00†	89.468	89.025	7146.61	9582.42	555.28	9566.32	40°10'54.333"N	104°56'38.287"W	0.00	
16517.00†	89.468	89.025	7147.54	9682.34	556.98	9666.30	40°10'54.349"N	104°56'36.999"W	0.00	
16566.39	89.468	89.025	7148.00 ¹	9731.69	557.82	9715.69	40°10'54.358"N	104°56'36.362"W	0.00	TOTAL DEPTH



Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: Bearfoot State 40N-36HZ PWB Ref Wellpath: Bearfoot State 40N-36HZ (PERMIT REV-1)

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	928.00	911.00	17.00	928.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	928.00	911.00	17.00	928.00	0.00	0.00	0.00	0.00
8.75in Open Hole	928.00	7416.54	6488.54	928.00	7063.00	0.00	0.00	402.19	567.55
7in Casing Intermediate	17.00	7416.54	7399.54	17.00	7063.00	0.00	0.00	402.19	567.55
6.125in Open Hole	7416.54	16566.39	9149.85	7063.00	7148.00	402.19	567.55	557.82	9715.69
4.5in Casing Production	17.00	16566.39	16549.39	17.00	7148.00	0.00	0.00	557.82	9715.69

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) Bearfoot State 40N-36HZ BHL REV-1 (2305'FSL & 460'FEL, SEC.36)	16566.39	7148.00	557.82	9715.69	3155507.36	1309548.15	40°10'54.358"N	104°56'36.362"W	point
Bearfoot State 40N-36HZ LANDBOX		7148.00	0.00	0.00	3145795.55	1308933.19	40°10'48.864"N	104°58'41.538"W	polygon
Bearfoot State 12-35HZ HARDLINES (460' SETBACK)		7343.00	-17.10	-24.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W	polygon
Bearfoot State 12-35HZ SECTION 35		7343.00	-17.10	-24.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W	polygon
Bearfoot State 12-35HZ SECTION 36		7343.00	-17.10	-24.60	3145771.05	1308915.95	40°10'48.695"N	104°58'41.855"W	polygon

SURVEY PROGRAM - Ref Wellbore: Bearfoot State 40N-36HZ PWB Ref Wellpath: Bearfoot State 40N-36HZ (PERMIT REV-1)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7416.54	NaviTrak (Standard)		Bearfoot State 40N-36HZ PWB
7416.54	16566.39	OnTrak (Standard)		Bearfoot State 40N-36HZ PWB



Planned Wellpath Report

Bearfoot State 40N-36HZ (PERMIT REV-1)

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	Slot #13 Bearfoot State 40N-36HZ (1907'FSL & 373'FWL, SEC.35)
Area	COLORADO	Well	Bearfoot State 40N-36HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	Bearfoot State 40N-36HZ PWB
Facility	SEC.35-T3N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
878.00	0.000	0.000	878.00	FOX HILLS BASE
4179.80	0.000	89.025	4148.00	SUSSEX
4615.80	0.000	89.025	4584.00	SHANNON
7017.25	49.539	89.025	6926.00	SHARON SPRINGS
7188.11	66.625	89.025	7016.00	NIOBRARA
7277.77	75.591	89.025	7045.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	0.000	17.00	TIE ON
1100.00	0.000	0.000	1100.00	BEGIN NUDGE
1600.00	10.000	0.000	1597.47	END NUDGE
3359.26	10.000	0.000	3330.00	BEGIN DROP
3859.26	0.000	89.025	3827.47	END DROP
6521.86	0.000	89.025	6490.07	KOP, BUILD @ 10°/100'
7416.54	89.468	89.025	7063.00	LANDING POINT
16566.39	89.468	89.025	7148.00	TOTAL DEPTH