

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#09 BARCLAY 37N-26HZ (577FSL & 1709FEL, SEC.14)
 Field: WELD COUNTY (KERR MCGEE) Well: BARCLAY 37N-26HZ
 Facility: SEC.14-T2N-R67W Wellbore: BARCLAY 37N-26HZ PWB

Plot reference wellpath is BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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: 4942 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#09 BARCLAY 37N-26HZ (577FSL & 1709FEL, SEC.14)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 21/Aug/2013

Location Information

Facility Name	CH9 East (US Ft)	CH9 North (US Ft)	Latitude	Longitude
SEC.14-T2N-R67W	3175914.426	1291732.032	40°07'56.627"N	104°51'16.947"W
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)
SLOT#09 BARCLAY 37N-26HZ (577FSL & 1709FEL, SEC.14)	-3.54	514.04	3180428.454	1291732.225
PERMIT (17 KB) (RKB) to Mud line (At Slot: SLOT#09 BARCLAY 37N-26HZ (577FSL & 1709FEL, SEC.14))				4942ft
Mean Sea Level to Mud line (At Slot: SLOT#09 BARCLAY 37N-26HZ (577FSL & 1709FEL, SEC.14))				0ft
PERMIT (17 KB) (RKB) to Mean Sea Level				4942ft

Survey Program

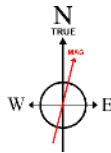
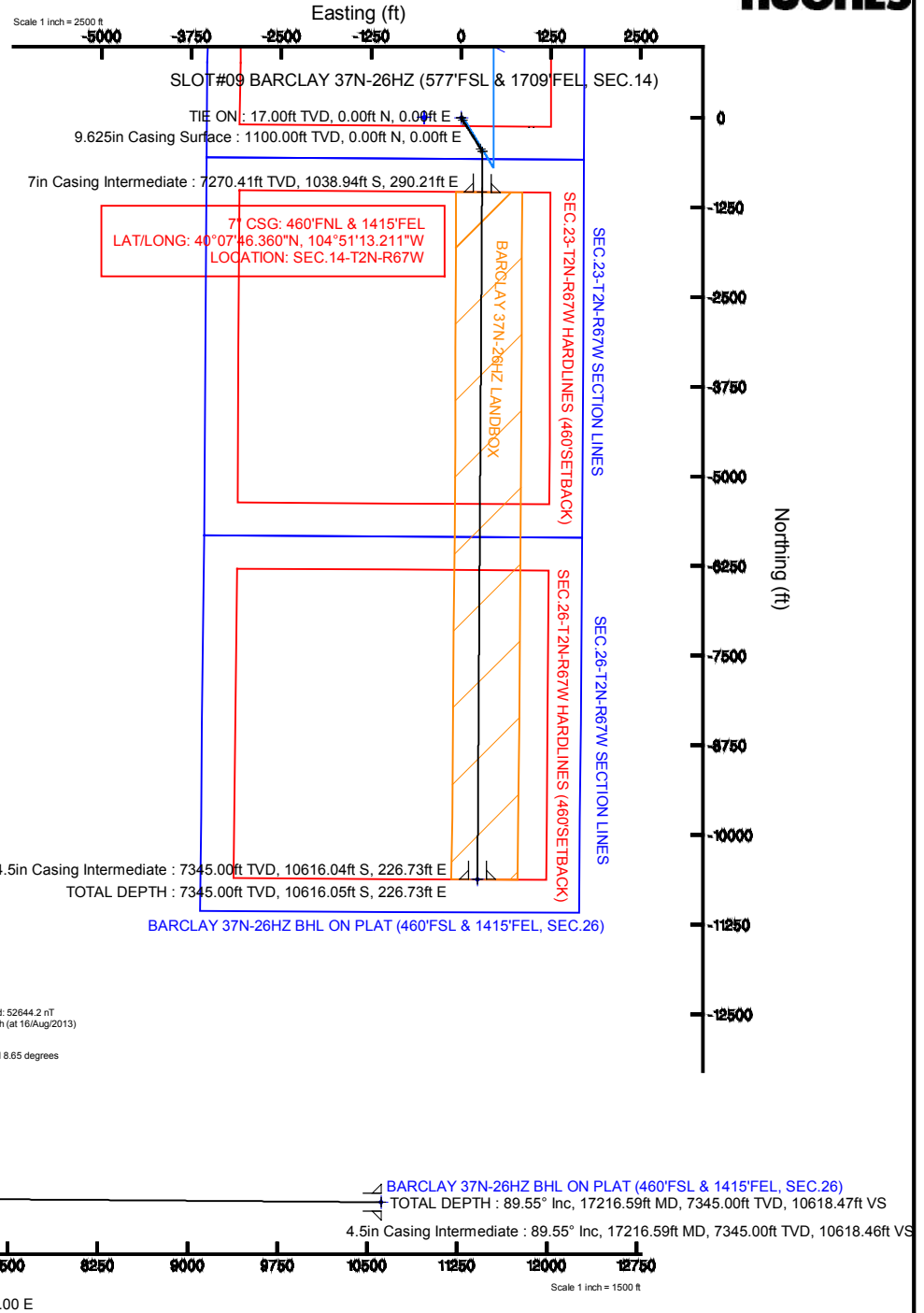
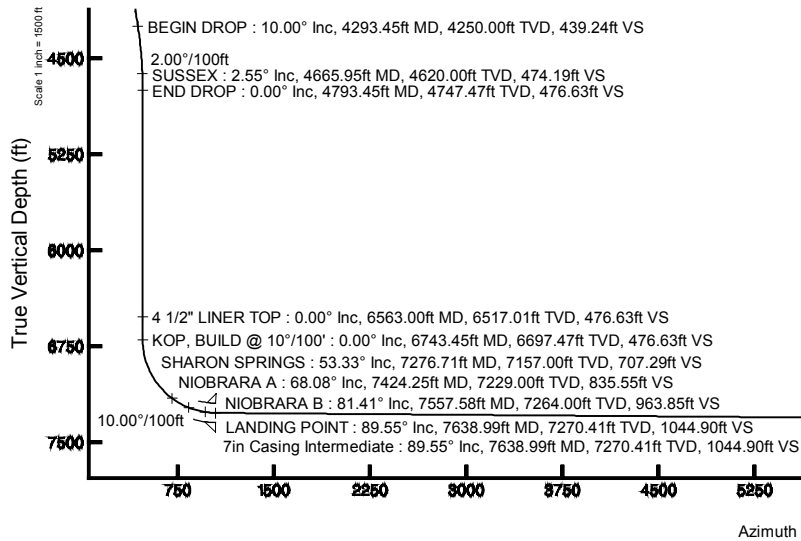
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7638.99	NavTrak	NavTrak (Standard)		BARCLAY 37N-26HZ PWB
7638.99	17216.59	OnTrak	OnTrak (Standard)		BARCLAY 37N-26HZ PWB

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SEC.14-T2N-R67W SECTION LINES	-7.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
SEC.23-T2N-R67W SECTION LINES	-7.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
SEC.26-T2N-R67W SECTION LINES	-7.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
BARCLAY 37N-26HZ BHL ON PLAT (460'FSL & 1415'FEL, SEC.26)	17216.59	7345.00	-10616.05	226.73	3180732.42	1291116.37	40°08'11.718"N	104°51'14.620"W
BARCLAY 37N-26HZ LANDBOX	7345.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
SEC.14-T2N-R67W HARDLINES (460'SETBACK)	7345.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
SEC.23-T2N-R67W HARDLINES (460'SETBACK)	7345.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
SEC.26-T2N-R67W HARDLINES (460'SETBACK)	7345.00	0.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W

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	0.00	148.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDDGE	1100.00	0.00	148.000	1100.00	0.00	0.00	0.00	0.00
END NUDDGE	1600.00	10.00	148.000	1597.47	-36.91	23.06	2.00	37.39
BEGIN DROP	4293.45	10.00	148.000	4250.00	-433.55	270.91	0.00	439.24
END DROP	4793.45	0.00	180.380	4747.47	-470.46	293.98	2.00	476.63
KOP_BUILD @ 10°/100'	6743.45	0.00	180.380	6697.47	-470.46	293.98	0.00	476.63
LANDING POINT	7638.99	89.554	180.380	7270.41	-1038.94	290.21	10.00	1044.90
TOTAL DEPTH	17216.59	89.554	180.380	7345.00	-10616.05	226.73	0.00	10618.47



BGGM (1945.0 to 2014.0) Dip: 66.71° Field: 52644.2 nT
 Magnetic North is 8.65 degrees East of True North (at 16/Aug/2013)

To correct azimuth from Magnetic to True add 8.65 degrees



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

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	0.999959	Report Generated	20/Aug/2013 at 15:01
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/BARCLAY_37N-26HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3.54	514.04	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W
Facility Reference Pt			3179914.43	1291732.03	40°07'56.662"N	104°51'23.565"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	4942.00ft
Horizontal Reference Pt	Slot	PERMIT (17' KB) (RKB) to Mean Sea Level	4942.00ft
Vertical Reference Pt	PERMIT (17' KB) (RKB)	PERMIT (17' KB) (RKB) to Mud Line at Slot (SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14))	4942.00ft
MD Reference Pt	PERMIT (17' KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	178.78°



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BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (186 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	148.000	0.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
17.00	0.000	148.000	17.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	TIE ON
117.00†	0.000	148.000	117.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
217.00†	0.000	148.000	217.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
317.00†	0.000	148.000	317.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
394.00†	0.000	148.000	394.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	FOX HILLS BASE
417.00†	0.000	148.000	417.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
517.00†	0.000	148.000	517.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
617.00†	0.000	148.000	617.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
717.00†	0.000	148.000	717.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
817.00†	0.000	148.000	817.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
917.00†	0.000	148.000	917.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
1017.00†	0.000	148.000	1017.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	
1100.00	0.000	148.000	1100.00	0.00	0.00	0.00	40°07'56.627"N	104°51'16.947"W	0.00	BEGIN NUDGE
1117.00†	0.340	148.000	1117.00	0.04	-0.04	0.03	40°07'56.627"N	104°51'16.947"W	2.00	
1217.00†	2.340	148.000	1216.97	2.05	-2.03	1.27	40°07'56.607"N	104°51'16.931"W	2.00	
1317.00†	4.340	148.000	1316.79	7.06	-6.97	4.35	40°07'56.558"N	104°51'16.891"W	2.00	
1417.00†	6.340	148.000	1416.35	15.05	-14.86	9.28	40°07'56.480"N	104°51'16.827"W	2.00	
1517.00†	8.340	148.000	1515.53	26.03	-25.69	16.05	40°07'56.373"N	104°51'16.740"W	2.00	
1600.00	10.000	148.000	1597.47	37.39	-36.91	23.06	40°07'56.262"N	104°51'16.650"W	2.00	END NUDGE
1617.00†	10.000	148.000	1614.21	39.93	-39.41	24.63	40°07'56.238"N	104°51'16.630"W	0.00	
1717.00†	10.000	148.000	1712.69	54.85	-54.14	33.83	40°07'56.092"N	104°51'16.511"W	0.00	
1817.00†	10.000	148.000	1811.17	69.77	-68.87	43.03	40°07'55.946"N	104°51'16.393"W	0.00	
1917.00†	10.000	148.000	1909.65	84.69	-83.59	52.23	40°07'55.801"N	104°51'16.275"W	0.00	
2017.00†	10.000	148.000	2008.13	99.61	-98.32	61.44	40°07'55.655"N	104°51'16.156"W	0.00	
2117.00†	10.000	148.000	2106.61	114.53	-113.04	70.64	40°07'55.510"N	104°51'16.038"W	0.00	
2217.00†	10.000	148.000	2205.09	129.45	-127.77	79.84	40°07'55.364"N	104°51'15.919"W	0.00	
2317.00†	10.000	148.000	2303.57	144.36	-142.50	89.04	40°07'55.219"N	104°51'15.801"W	0.00	
2417.00†	10.000	148.000	2402.05	159.28	-157.22	98.24	40°07'55.073"N	104°51'15.682"W	0.00	
2517.00†	10.000	148.000	2500.53	174.20	-171.95	107.45	40°07'54.928"N	104°51'15.564"W	0.00	
2617.00†	10.000	148.000	2599.01	189.12	-186.67	116.65	40°07'54.782"N	104°51'15.445"W	0.00	
2717.00†	10.000	148.000	2697.50	204.04	-201.40	125.85	40°07'54.637"N	104°51'15.327"W	0.00	
2817.00†	10.000	148.000	2795.98	218.96	-216.13	135.05	40°07'54.491"N	104°51'15.208"W	0.00	
2917.00†	10.000	148.000	2894.46	233.88	-230.85	144.25	40°07'54.346"N	104°51'15.090"W	0.00	
3017.00†	10.000	148.000	2992.94	248.80	-245.58	153.46	40°07'54.200"N	104°51'14.971"W	0.00	
3117.00†	10.000	148.000	3091.42	263.72	-260.31	162.66	40°07'54.055"N	104°51'14.853"W	0.00	
3217.00†	10.000	148.000	3189.90	278.64	-275.03	171.86	40°07'53.909"N	104°51'14.734"W	0.00	
3317.00†	10.000	148.000	3288.38	293.56	-289.76	181.06	40°07'53.764"N	104°51'14.616"W	0.00	
3417.00†	10.000	148.000	3386.86	308.48	-304.48	190.26	40°07'53.618"N	104°51'14.497"W	0.00	
3517.00†	10.000	148.000	3485.34	323.40	-319.21	199.46	40°07'53.473"N	104°51'14.379"W	0.00	
3617.00†	10.000	148.000	3583.82	338.32	-333.94	208.67	40°07'53.327"N	104°51'14.261"W	0.00	
3717.00†	10.000	148.000	3682.30	353.24	-348.66	217.87	40°07'53.181"N	104°51'14.142"W	0.00	
3817.00†	10.000	148.000	3780.78	368.15	-363.39	227.07	40°07'53.036"N	104°51'14.024"W	0.00	
3917.00†	10.000	148.000	3879.26	383.07	-378.12	236.27	40°07'52.890"N	104°51'13.905"W	0.00	
4017.00†	10.000	148.000	3977.75	397.99	-392.84	245.47	40°07'52.745"N	104°51'13.787"W	0.00	



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	10.000	148.000	4076.23	412.91	-407.57	254.68	40°07'52.599"N	104°51'13.668"W	0.00	
4217.00†	10.000	148.000	4174.71	427.83	-422.29	263.88	40°07'52.454"N	104°51'13.550"W	0.00	
4293.45	10.000	148.000	4250.00	439.24	-433.55	270.91	40°07'52.343"N	104°51'13.459"W	0.00	BEGIN DROP
4317.00†	9.529	148.000	4273.20	442.67	-436.94	273.03	40°07'52.309"N	104°51'13.432"W	2.00	
4417.00†	7.529	148.000	4372.09	455.41	-449.52	280.89	40°07'52.185"N	104°51'13.331"W	2.00	
4517.00†	5.529	148.000	4471.44	465.18	-459.16	286.91	40°07'52.090"N	104°51'13.253"W	2.00	
4617.00†	3.529	148.000	4571.12	471.96	-465.85	291.10	40°07'52.023"N	104°51'13.199"W	2.00	
4665.95†	2.550	148.000	4620.00	474.19	-468.06	292.47	40°07'52.002"N	104°51'13.182"W	2.00	SUSSEX
4717.00†	1.529	148.000	4671.02	475.76	-469.60	293.44	40°07'51.986"N	104°51'13.169"W	2.00	
4793.45	0.000	180.380	4747.47	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	2.00	END DROP
4817.00†	0.000	180.380	4771.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
4917.00†	0.000	180.380	4871.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5017.00†	0.000	180.380	4971.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5117.00†	0.000	180.380	5071.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5217.00†	0.000	180.380	5171.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5317.00†	0.000	180.380	5271.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5417.00†	0.000	180.380	5371.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5517.00†	0.000	180.380	5471.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5617.00†	0.000	180.380	5571.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5717.00†	0.000	180.380	5671.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5817.00†	0.000	180.380	5771.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
5917.00†	0.000	180.380	5871.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6017.00†	0.000	180.380	5971.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6117.00†	0.000	180.380	6071.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6217.00†	0.000	180.380	6171.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6317.00†	0.000	180.380	6271.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6417.00†	0.000	180.380	6371.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6517.00†	0.000	180.380	6471.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6563.00†	0.000	180.380	6517.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	4 1/2" LINER TOP
6617.00†	0.000	180.380	6571.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6717.00†	0.000	180.380	6671.01	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	
6743.45	0.000	180.380	6697.47	476.63	-470.46	293.98	40°07'51.978"N	104°51'13.162"W	0.00	KOP, BUILD @ 10°/100'
6817.00†	7.355	180.380	6770.81	481.34	-475.18	293.95	40°07'51.931"N	104°51'13.163"W	10.00	
6917.00†	17.355	180.380	6868.37	502.70	-496.54	293.80	40°07'51.720"N	104°51'13.164"W	10.00	
7017.00†	27.355	180.380	6960.74	540.67	-534.53	293.55	40°07'51.345"N	104°51'13.168"W	10.00	
7117.00†	37.355	180.380	7045.11	594.10	-587.98	293.20	40°07'50.817"N	104°51'13.172"W	10.00	
7217.00†	47.355	180.380	7118.91	661.36	-655.26	292.75	40°07'50.152"N	104°51'13.178"W	10.00	
7276.71†	53.325	180.380	7157.00	707.29	-701.20	292.45	40°07'49.698"N	104°51'13.182"W	10.00	SHARON SPRINGS
7317.00†	57.355	180.380	7179.91	740.41	-734.34	292.23	40°07'49.370"N	104°51'13.185"W	10.00	
7417.00†	67.355	180.380	7226.25	828.85	-822.81	291.64	40°07'48.496"N	104°51'13.192"W	10.00	
7424.25†	68.080	180.380	7229.00	835.55	-829.52	291.60	40°07'48.430"N	104°51'13.193"W	10.00	NIOBRARA A
7517.00†	77.355	180.380	7256.53	923.98	-917.98	291.01	40°07'47.555"N	104°51'13.201"W	10.00	
7557.58†	81.413	180.380	7264.00	963.85	-957.86	290.75	40°07'47.161"N	104°51'13.204"W	10.00	NIOBRARA B
7617.00†	87.355	180.380	7269.81	1022.93	-1016.96	290.35	40°07'46.577"N	104°51'13.209"W	10.00	
7638.99	89.554	180.380	7270.41	1044.90	-1038.94	290.21	40°07'46.360"N	104°51'13.211"W	10.00	LANDING POINT



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	89.554	180.380	7271.01	1122.88	-1116.95	289.69	40°07'45.589"N	104°51'13.218"W	0.00	
7817.00†	89.554	180.380	7271.79	1222.84	-1216.94	289.03	40°07'44.601"N	104°51'13.226"W	0.00	
7917.00†	89.554	180.380	7272.57	1322.80	-1316.94	288.37	40°07'43.613"N	104°51'13.235"W	0.00	
8017.00†	89.554	180.380	7273.35	1422.75	-1416.93	287.70	40°07'42.625"N	104°51'13.243"W	0.00	
8117.00†	89.554	180.380	7274.13	1522.71	-1516.93	287.04	40°07'41.637"N	104°51'13.252"W	0.00	
8217.00†	89.554	180.380	7274.91	1622.67	-1616.92	286.38	40°07'40.648"N	104°51'13.260"W	0.00	
8317.00†	89.554	180.380	7275.69	1722.63	-1716.92	285.72	40°07'39.660"N	104°51'13.269"W	0.00	
8417.00†	89.554	180.380	7276.47	1822.58	-1816.91	285.05	40°07'38.672"N	104°51'13.277"W	0.00	
8517.00†	89.554	180.380	7277.24	1922.54	-1916.91	284.39	40°07'37.684"N	104°51'13.286"W	0.00	
8617.00†	89.554	180.380	7278.02	2022.50	-2016.90	283.73	40°07'36.696"N	104°51'13.294"W	0.00	
8717.00†	89.554	180.380	7278.80	2122.46	-2116.90	283.06	40°07'35.708"N	104°51'13.303"W	0.00	
8817.00†	89.554	180.380	7279.58	2222.42	-2216.89	282.40	40°07'34.719"N	104°51'13.312"W	0.00	
8917.00†	89.554	180.380	7280.36	2322.37	-2316.89	281.74	40°07'33.731"N	104°51'13.320"W	0.00	
9017.00†	89.554	180.380	7281.14	2422.33	-2416.88	281.08	40°07'32.743"N	104°51'13.329"W	0.00	
9117.00†	89.554	180.380	7281.92	2522.29	-2516.88	280.41	40°07'31.755"N	104°51'13.337"W	0.00	
9217.00†	89.554	180.380	7282.70	2622.25	-2616.87	279.75	40°07'30.767"N	104°51'13.346"W	0.00	
9317.00†	89.554	180.380	7283.47	2722.21	-2716.87	279.09	40°07'29.779"N	104°51'13.354"W	0.00	
9417.00†	89.554	180.380	7284.25	2822.16	-2816.86	278.42	40°07'28.790"N	104°51'13.363"W	0.00	
9517.00†	89.554	180.380	7285.03	2922.12	-2916.85	277.76	40°07'27.802"N	104°51'13.371"W	0.00	
9617.00†	89.554	180.380	7285.81	3022.08	-3016.85	277.10	40°07'26.814"N	104°51'13.380"W	0.00	
9717.00†	89.554	180.380	7286.59	3122.04	-3116.84	276.44	40°07'25.826"N	104°51'13.388"W	0.00	
9817.00†	89.554	180.380	7287.37	3221.99	-3216.84	275.77	40°07'24.838"N	104°51'13.397"W	0.00	
9917.00†	89.554	180.380	7288.15	3321.95	-3316.83	275.11	40°07'23.850"N	104°51'13.406"W	0.00	
10017.00†	89.554	180.380	7288.93	3421.91	-3416.83	274.45	40°07'22.862"N	104°51'13.414"W	0.00	
10117.00†	89.554	180.380	7289.71	3521.87	-3516.82	273.79	40°07'21.873"N	104°51'13.423"W	0.00	
10217.00†	89.554	180.380	7290.48	3621.83	-3616.82	273.12	40°07'20.885"N	104°51'13.431"W	0.00	
10317.00†	89.554	180.380	7291.26	3721.78	-3716.81	272.46	40°07'19.897"N	104°51'13.440"W	0.00	
10417.00†	89.554	180.380	7292.04	3821.74	-3816.81	271.80	40°07'18.909"N	104°51'13.448"W	0.00	
10517.00†	89.554	180.380	7292.82	3921.70	-3916.80	271.13	40°07'17.921"N	104°51'13.457"W	0.00	
10617.00†	89.554	180.380	7293.60	4021.66	-4016.80	270.47	40°07'16.933"N	104°51'13.465"W	0.00	
10717.00†	89.554	180.380	7294.38	4121.61	-4116.79	269.81	40°07'15.944"N	104°51'13.474"W	0.00	
10817.00†	89.554	180.380	7295.16	4221.57	-4216.79	269.15	40°07'14.956"N	104°51'13.482"W	0.00	
10917.00†	89.554	180.380	7295.94	4321.53	-4316.78	268.48	40°07'13.968"N	104°51'13.491"W	0.00	
11017.00†	89.554	180.380	7296.72	4421.49	-4416.78	267.82	40°07'12.980"N	104°51'13.500"W	0.00	
11117.00†	89.554	180.380	7297.49	4521.45	-4516.77	267.16	40°07'11.992"N	104°51'13.508"W	0.00	
11217.00†	89.554	180.380	7298.27	4621.40	-4616.77	266.49	40°07'11.004"N	104°51'13.517"W	0.00	
11317.00†	89.554	180.380	7299.05	4721.36	-4716.76	265.83	40°07'10.015"N	104°51'13.525"W	0.00	
11417.00†	89.554	180.380	7299.83	4821.32	-4816.76	265.17	40°07'09.027"N	104°51'13.534"W	0.00	
11517.00†	89.554	180.380	7300.61	4921.28	-4916.75	264.51	40°07'08.039"N	104°51'13.542"W	0.00	
11617.00†	89.554	180.380	7301.39	5021.23	-5016.75	263.84	40°07'07.051"N	104°51'13.551"W	0.00	
11717.00†	89.554	180.380	7302.17	5121.19	-5116.74	263.18	40°07'06.063"N	104°51'13.559"W	0.00	
11817.00†	89.554	180.380	7302.95	5221.15	-5216.73	262.52	40°07'05.075"N	104°51'13.568"W	0.00	
11917.00†	89.554	180.380	7303.72	5321.11	-5316.73	261.86	40°07'04.087"N	104°51'13.576"W	0.00	
12017.00†	89.554	180.380	7304.50	5421.07	-5416.72	261.19	40°07'03.098"N	104°51'13.585"W	0.00	
12117.00†	89.554	180.380	7305.28	5521.02	-5516.72	260.53	40°07'02.110"N	104°51'13.594"W	0.00	



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	89.554	180.380	7306.06	5620.98	-5616.71	259.87	40°07'01.122"N	104°51'13.602"W	0.00	
12317.00†	89.554	180.380	7306.84	5720.94	-5716.71	259.20	40°07'00.134"N	104°51'13.611"W	0.00	
12417.00†	89.554	180.380	7307.62	5820.90	-5816.70	258.54	40°06'59.146"N	104°51'13.619"W	0.00	
12517.00†	89.554	180.380	7308.40	5920.86	-5916.70	257.88	40°06'58.158"N	104°51'13.628"W	0.00	
12617.00†	89.554	180.380	7309.18	6020.81	-6016.69	257.22	40°06'57.169"N	104°51'13.636"W	0.00	
12717.00†	89.554	180.380	7309.96	6120.77	-6116.69	256.55	40°06'56.181"N	104°51'13.645"W	0.00	
12817.00†	89.554	180.380	7310.73	6220.73	-6216.68	255.89	40°06'55.193"N	104°51'13.653"W	0.00	
12917.00†	89.554	180.380	7311.51	6320.69	-6316.68	255.23	40°06'54.205"N	104°51'13.662"W	0.00	
13017.00†	89.554	180.380	7312.29	6420.64	-6416.67	254.56	40°06'53.217"N	104°51'13.670"W	0.00	
13117.00†	89.554	180.380	7313.07	6520.60	-6516.67	253.90	40°06'52.229"N	104°51'13.679"W	0.00	
13217.00†	89.554	180.380	7313.85	6620.56	-6616.66	253.24	40°06'51.240"N	104°51'13.688"W	0.00	
13317.00†	89.554	180.380	7314.63	6720.52	-6716.66	252.58	40°06'50.252"N	104°51'13.696"W	0.00	
13417.00†	89.554	180.380	7315.41	6820.48	-6816.65	251.91	40°06'49.264"N	104°51'13.705"W	0.00	
13517.00†	89.554	180.380	7316.19	6920.43	-6916.65	251.25	40°06'48.276"N	104°51'13.713"W	0.00	
13617.00†	89.554	180.380	7316.96	7020.39	-7016.64	250.59	40°06'47.288"N	104°51'13.722"W	0.00	
13717.00†	89.554	180.380	7317.74	7120.35	-7116.64	249.93	40°06'46.300"N	104°51'13.730"W	0.00	
13817.00†	89.554	180.380	7318.52	7220.31	-7216.63	249.26	40°06'45.311"N	104°51'13.739"W	0.00	
13917.00†	89.554	180.380	7319.30	7320.26	-7316.62	248.60	40°06'44.323"N	104°51'13.747"W	0.00	
14017.00†	89.554	180.380	7320.08	7420.22	-7416.62	247.94	40°06'43.335"N	104°51'13.756"W	0.00	
14117.00†	89.554	180.380	7320.86	7520.18	-7516.61	247.27	40°06'42.347"N	104°51'13.764"W	0.00	
14217.00†	89.554	180.380	7321.64	7620.14	-7616.61	246.61	40°06'41.359"N	104°51'13.773"W	0.00	
14317.00†	89.554	180.380	7322.42	7720.10	-7716.60	245.95	40°06'40.371"N	104°51'13.782"W	0.00	
14417.00†	89.554	180.380	7323.20	7820.05	-7816.60	245.29	40°06'39.383"N	104°51'13.790"W	0.00	
14517.00†	89.554	180.380	7323.97	7920.01	-7916.59	244.62	40°06'38.394"N	104°51'13.799"W	0.00	
14617.00†	89.554	180.380	7324.75	8019.97	-8016.59	243.96	40°06'37.406"N	104°51'13.807"W	0.00	
14717.00†	89.554	180.380	7325.53	8119.93	-8116.58	243.30	40°06'36.418"N	104°51'13.816"W	0.00	
14817.00†	89.554	180.380	7326.31	8219.89	-8216.58	242.63	40°06'35.430"N	104°51'13.824"W	0.00	
14917.00†	89.554	180.380	7327.09	8319.84	-8316.57	241.97	40°06'34.442"N	104°51'13.833"W	0.00	
15017.00†	89.554	180.380	7327.87	8419.80	-8416.57	241.31	40°06'33.454"N	104°51'13.841"W	0.00	
15117.00†	89.554	180.380	7328.65	8519.76	-8516.56	240.65	40°06'32.465"N	104°51'13.850"W	0.00	
15217.00†	89.554	180.380	7329.43	8619.72	-8616.56	239.98	40°06'31.477"N	104°51'13.858"W	0.00	
15317.00†	89.554	180.380	7330.21	8719.67	-8716.55	239.32	40°06'30.489"N	104°51'13.867"W	0.00	
15417.00†	89.554	180.380	7330.98	8819.63	-8816.55	238.66	40°06'29.501"N	104°51'13.875"W	0.00	
15517.00†	89.554	180.380	7331.76	8919.59	-8916.54	238.00	40°06'28.513"N	104°51'13.884"W	0.00	
15617.00†	89.554	180.380	7332.54	9019.55	-9016.54	237.33	40°06'27.525"N	104°51'13.893"W	0.00	
15717.00†	89.554	180.380	7333.32	9119.51	-9116.53	236.67	40°06'26.536"N	104°51'13.901"W	0.00	
15817.00†	89.554	180.380	7334.10	9219.46	-9216.53	236.01	40°06'25.548"N	104°51'13.910"W	0.00	
15917.00†	89.554	180.380	7334.88	9319.42	-9316.52	235.34	40°06'24.560"N	104°51'13.918"W	0.00	
16017.00†	89.554	180.380	7335.66	9419.38	-9416.51	234.68	40°06'23.572"N	104°51'13.927"W	0.00	
16117.00†	89.554	180.380	7336.44	9519.34	-9516.51	234.02	40°06'22.584"N	104°51'13.935"W	0.00	
16217.00†	89.554	180.380	7337.21	9619.29	-9616.50	233.36	40°06'21.596"N	104°51'13.944"W	0.00	
16317.00†	89.554	180.380	7337.99	9719.25	-9716.50	232.69	40°06'20.607"N	104°51'13.952"W	0.00	
16417.00†	89.554	180.380	7338.77	9819.21	-9816.49	232.03	40°06'19.619"N	104°51'13.961"W	0.00	
16517.00†	89.554	180.380	7339.55	9919.17	-9916.49	231.37	40°06'18.631"N	104°51'13.969"W	0.00	
16617.00†	89.554	180.380	7340.33	10019.13	-10016.48	230.70	40°06'17.643"N	104°51'13.978"W	0.00	



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH DATA (186 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16717.00†	89.554	180.380	7341.11	10119.08	-10116.48	230.04	40°06'16.655"N	104°51'13.987"W	0.00	
16817.00†	89.554	180.380	7341.89	10219.04	-10216.47	229.38	40°06'15.667"N	104°51'13.995"W	0.00	
16917.00†	89.554	180.380	7342.67	10319.00	-10316.47	228.72	40°06'14.678"N	104°51'14.004"W	0.00	
17017.00†	89.554	180.380	7343.45	10418.96	-10416.46	228.05	40°06'13.690"N	104°51'14.012"W	0.00	
17117.00†	89.554	180.380	7344.22	10518.92	-10516.46	227.39	40°06'12.702"N	104°51'14.021"W	0.00	
17216.59	89.554	180.380	7345.00 ¹	10618.47	-10616.05	226.73	40°06'11.718"N	104°51'14.029"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -

Ref Wellbore: BARCLAY 37N-26HZ PWB Ref Wellpath: BARCLAY 37N-26HZ (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	17.00	1100.00	1083.00	17.00	1100.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1100.00	1083.00	17.00	1100.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1100.00	7638.99	6538.99	1100.00	7270.41	0.00	0.00	-1038.94	290.21
7in Casing Intermediate	17.00	7638.99	7621.99	17.00	7270.41	0.00	0.00	-1038.94	290.21
6.125in Open Hole	7638.99	17216.59	9577.60	7270.41	7345.00	-1038.94	290.21	-10616.04	226.73
4.5in Casing Intermediate	17.00	17216.59	17199.59	17.00	7345.00	0.00	0.00	-10616.04	226.73



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.14-T2N-R67W SECTION LINES		-7.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
SEC.23-T2N-R67W SECTION LINES		-7.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
SEC.26-T2N-R67W SECTION LINES		-7.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
1) BARCLAY 37N-26HZ BHL ON PLAT (460'FSL & 1415'FEL, SEC.26)	17216.59	7345.00	-10616.05	226.73	3180732.42	1281118.57	40°06'11.718"N	104°51'14.029"W	point
BARCLAY 37N-26HZ LANDBOX		7345.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
SEC.14-T2N-R67W HARDLINES (460' SETBACK)		7346.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
SEC.23-T2N-R67W HARDLINES (460' SETBACK)		7346.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon
SEC.26-T2N-R67W HARDLINES (460' SETBACK)		7346.00	0.00	0.00	3180428.45	1291732.23	40°07'56.627"N	104°51'16.947"W	polygon

SURVEY PROGRAM - Ref Wellbore: BARCLAY 37N-26HZ PWB Ref Wellpath: BARCLAY 37N-26HZ (PERMIT REV-1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7638.99	NaviTrak (Standard)		BARCLAY 37N-26HZ PWB
7638.99	17216.59	OnTrak (Standard)		BARCLAY 37N-26HZ PWB



Planned Wellpath Report

BARCLAY 37N-26HZ (PERMIT REV-1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#09 BARCLAY 37N-26HZ (577'FSL & 1709'FEL, SEC.14)
Area	COLORADO	Well	BARCLAY 37N-26HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BARCLAY 37N-26HZ PWB
Facility	SEC.14-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
394.00	0.000	148.000	394.00	FOX HILLS BASE
4665.95	2.550	148.000	4620.00	SUSSEX
6563.00	0.000	180.380	6517.01	4 1/2" LINER TOP
7276.71	53.325	180.380	7157.00	SHARON SPRINGS
7424.25	68.080	180.380	7229.00	NIOBRARA A
7557.58	81.413	180.380	7264.00	NIOBRARA B

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	148.000	17.00	TIE ON
1100.00	0.000	148.000	1100.00	BEGIN NUDGE
1600.00	10.000	148.000	1597.47	END NUDGE
4293.45	10.000	148.000	4250.00	BEGIN DROP
4793.45	0.000	180.380	4747.47	END DROP
6743.45	0.000	180.380	6697.47	KOP, BUILD @ 10°/100'
7638.99	89.554	180.380	7270.41	LANDING POINT
17216.59	89.554	180.380	7345.00	TOTAL DEPTH