

# KERR-MCGEE OIL & GAS ONSHORE LP\_1



Location: Compass Import Slot: SLOT#04 POWERS 35N-22HZ  
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH) Well: POWERS 35N-22HZ  
Facility: 2N-65W-22 Offsets Wellbore: POWERS 35N-22HZ PWB

Plot reference wellpath is POWERS 35N-22HZ (PERMIT REV-3) PWP

True vertical depths are referenced to PERMIT (17KB) (RKB) Grid System: NAD83 / UTM Zone 13 North, US feet  
Measured depths are referenced to PERMIT (17KB) (RKB) North Reference: True north  
PERMIT (17KB) (RKB) to Mean Sea Level: 4900 feet Scale: Grid distance  
Mean Sea Level to Mud line (At Slot: SLOT#04 POWERS 35N-22HZ): 0 feet Depths are in feet  
Coordinates are in feet referenced to Slot Created by: precin on 2/9/2015

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
2N-65W-22 Offsets			1738275.355	14569566.651	40°07'01.553"N	104°38'59.892"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#04 POWERS 35N-22HZ	4455.43	-1041.78	1737216.049	14574017.938	40°07'45.599"N	104°39'13.309"W
PERMIT (17'KB) (RKB) to Mud line (At Slot: SLOT#04 POWERS 35N-22HZ)					4900ft	
Mean Sea Level to Mud line (At Slot: SLOT#04 POWERS 35N-22HZ)					0ft	
PERMIT (17'KB) (RKB) to Mean Sea Level					4900ft	

## Survey Program

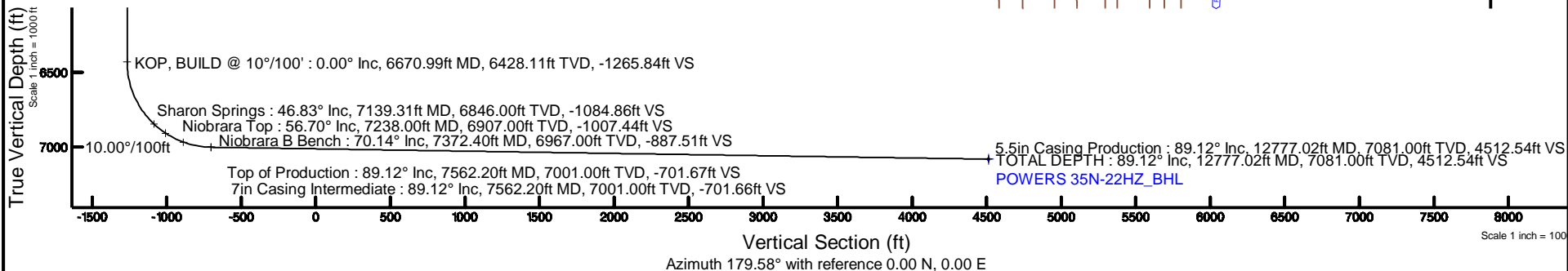
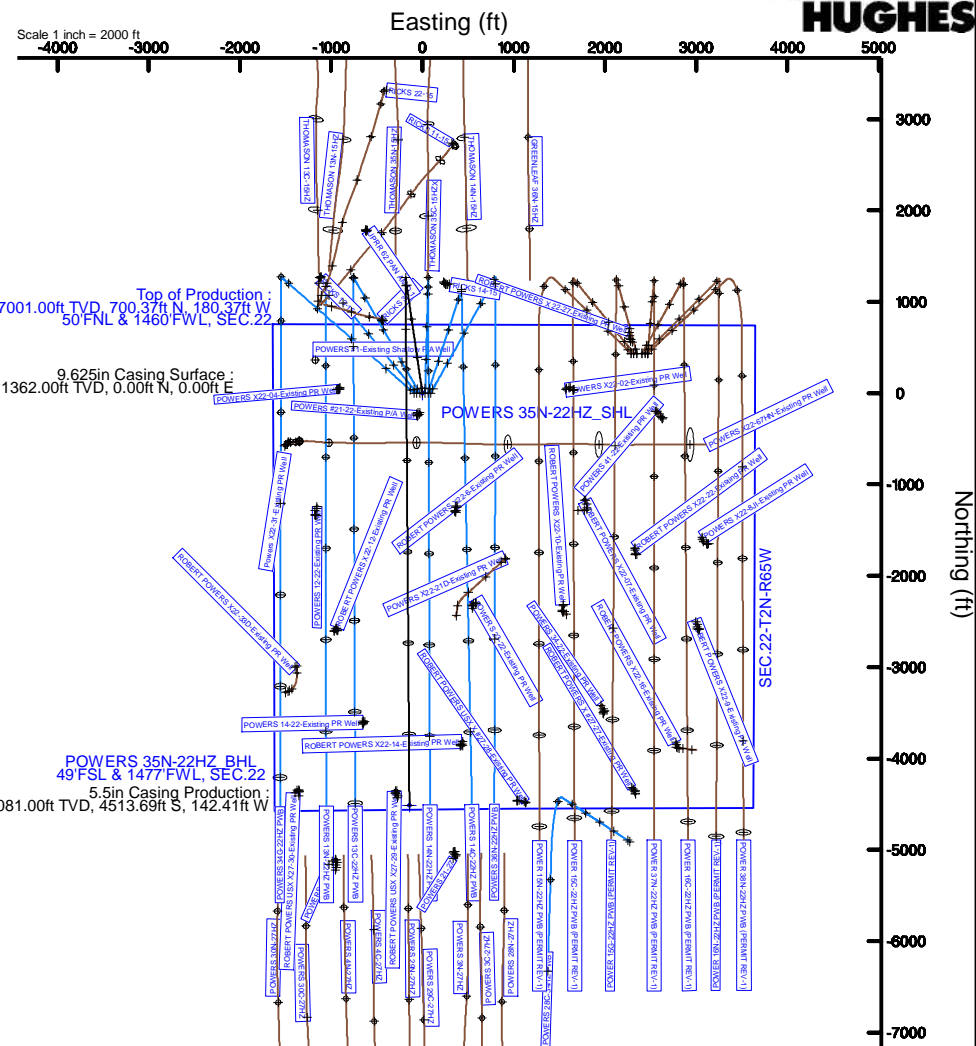
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	12777.02	ISOWSA MWD, Rev. 2, axial magnetic correction	ISOWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)		POWERS 35N-22HZ PWB

## 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	351.700	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1450.00	0.000	351.700	1450.00	0.00	0.00	0.00	0.00
END NUDGE	2700.00	25.000	351.700	2660.71	265.60	-38.75	2.00	-265.87
BEGIN DROP	4453.59	25.000	351.700	4250.00	998.93	-145.73	0.00	-999.97
END DROP	5703.59	0.000	179.583	5460.71	1264.53	-184.47	2.00	-1265.84
KOP, BUILD @ 10°/100'	6670.99	0.000	179.583	6428.11	1264.53	-184.47	0.00	-1265.84
LANDING POINT	7562.20	89.121	179.583	7001.00	700.38	-180.37	10.00	-701.67
TOTAL DEPTH	12777.02	89.121	179.583	7081.00	-4513.69	-142.41	0.00	4512.54

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
POWERS 35N-22HZ_SHL	4900.00	0.00	0.00	0.00	1737216.05	14574017.94	40°07'45.599"N	104°39'13.309"W
SEC.22-T2N-R65W	4900.00	0.00	0.00	0.00	1737216.05	14574017.94	40°07'45.599"N	104°39'13.309"W
POWERS 35N-22HZ_BHL	12777.02	7081.00	-4513.69	-142.41	1737091.22	14569503.73	40°07'00.977"N	104°39'15.143"W



Vertical Section (ft)  
Azimuth 179.58° with reference 0.00 N, 0.00 E

# Planned Wellpath Report

POWERS 35N-22HZ (PERMIT REV-3) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#04 POWERS 35N-22HZ
Area	Compass Import	Well	POWERS 35N-22HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

## REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.999611	Report Generated	4/28/2015 at 1:37:06 PM
Convergence at slot	0.22° East	Database/Source file	WellArchitectDC/POWERS_35N-22HZ_PWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	4455.43	-1041.78	1737216.05	14574017.94	40°07'45.599"N	104°39'13.309"W
Facility Reference Pt			1738275.36	14569566.65	40°07'01.553"N	104°38'59.892"W
Field Reference Pt			1700626.56	14568707.73	40°06'54.245"N	104°47'04.711"W

## WELLPATH DATUM

Calculation method	Minimum curvature	PERMIT (17'KB) (RKB) to 2N-65W-22 Offsets vertical datum	4900.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4900.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#04 POWERS 35N-22HZ)	4900.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.58°

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#04 POWERS 35N-22HZ
Area	Compass Import	Well	POWERS 35N-22HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

## WELLPATH DATA (142 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	351.700	0.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
17.00	0.000	351.700	17.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	TIE-ON
117.00†	0.000	351.700	117.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
217.00†	0.000	351.700	217.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
317.00†	0.000	351.700	317.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
417.00†	0.000	351.700	417.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
517.00†	0.000	351.700	517.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
617.00†	0.000	351.700	617.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
717.00†	0.000	351.700	717.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
817.00†	0.000	351.700	817.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
917.00†	0.000	351.700	917.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1017.00†	0.000	351.700	1017.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1117.00†	0.000	351.700	1117.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1217.00†	0.000	351.700	1217.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1312.00†	0.000	351.700	1312.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	Fox Hills Base
1317.00†	0.000	351.700	1317.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1417.00†	0.000	351.700	1417.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	
1450.00	0.000	351.700	1450.00	0.00	0.00	0.00	40°07'45.599"N	104°39'13.309"W	0.00	BEGIN NUDGE
1517.00†	1.340	351.700	1516.99	-0.78	0.78	-0.11	40°07'45.607"N	104°39'13.310"W	2.00	
1617.00†	3.340	351.700	1616.91	-4.82	4.82	-0.70	40°07'45.647"N	104°39'13.318"W	2.00	
1717.00†	5.340	351.700	1716.61	-12.32	12.30	-1.79	40°07'45.721"N	104°39'13.332"W	2.00	
1817.00†	7.340	351.700	1816.00	-23.25	23.23	-3.39	40°07'45.829"N	104°39'13.353"W	2.00	
1917.00†	9.340	351.700	1914.93	-37.62	37.58	-5.48	40°07'45.971"N	104°39'13.380"W	2.00	
2017.00†	11.340	351.700	2013.31	-55.40	55.34	-8.07	40°07'46.146"N	104°39'13.413"W	2.00	
2117.00†	13.340	351.700	2110.99	-76.57	76.49	-11.16	40°07'46.355"N	104°39'13.453"W	2.00	
2217.00†	15.340	351.700	2207.87	-101.10	100.99	-14.73	40°07'46.597"N	104°39'13.499"W	2.00	
2317.00†	17.340	351.700	2303.83	-128.97	128.83	-18.79	40°07'46.873"N	104°39'13.551"W	2.00	
2417.00†	19.340	351.700	2398.74	-160.13	159.97	-23.34	40°07'47.180"N	104°39'13.610"W	2.00	
2517.00†	21.340	351.700	2492.50	-194.56	194.36	-28.35	40°07'47.520"N	104°39'13.674"W	2.00	
2617.00†	23.340	351.700	2584.99	-232.21	231.97	-33.84	40°07'47.892"N	104°39'13.745"W	2.00	
2700.00	25.000	351.700	2660.71	-265.87	265.60	-38.75	40°07'48.225"N	104°39'13.808"W	2.00	END NUDGE
2717.00†	25.000	351.700	2676.12	-272.99	272.71	-39.78	40°07'48.295"N	104°39'13.821"W	0.00	
2817.00†	25.000	351.700	2766.75	-314.85	314.53	-45.88	40°07'48.708"N	104°39'13.900"W	0.00	
2917.00†	25.000	351.700	2857.38	-356.71	356.34	-51.99	40°07'49.122"N	104°39'13.979"W	0.00	
3017.00†	25.000	351.700	2948.01	-398.58	398.16	-58.09	40°07'49.535"N	104°39'14.057"W	0.00	
3117.00†	25.000	351.700	3038.64	-440.44	439.98	-64.19	40°07'49.949"N	104°39'14.136"W	0.00	
3217.00†	25.000	351.700	3129.27	-482.30	481.80	-70.29	40°07'50.362"N	104°39'14.214"W	0.00	
3317.00†	25.000	351.700	3219.90	-524.16	523.62	-76.39	40°07'50.775"N	104°39'14.293"W	0.00	
3417.00†	25.000	351.700	3310.53	-566.03	565.44	-82.49	40°07'51.189"N	104°39'14.371"W	0.00	
3517.00†	25.000	351.700	3401.17	-607.89	607.26	-88.59	40°07'51.602"N	104°39'14.450"W	0.00	
3617.00†	25.000	351.700	3491.80	-649.75	649.08	-94.69	40°07'52.016"N	104°39'14.529"W	0.00	
3717.00†	25.000	351.700	3582.43	-691.61	690.90	-100.79	40°07'52.429"N	104°39'14.607"W	0.00	
3817.00†	25.000	351.700	3673.06	-733.48	732.72	-106.89	40°07'52.843"N	104°39'14.686"W	0.00	
3917.00†	25.000	351.700	3763.69	-775.34	774.54	-112.99	40°07'53.256"N	104°39'14.764"W	0.00	
4017.00†	25.000	351.700	3854.32	-817.20	816.36	-119.09	40°07'53.669"N	104°39'14.843"W	0.00	

# Planned Wellpath Report

POWERS 35N-22HZ (PERMIT REV-3) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#04 POWERS 35N-22HZ
Area	Compass Import	Well	POWERS 35N-22HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4117.00†	25.000	351.700	3944.95	-859.06	858.17	-125.19	40°07'54.083"N	104°39'14.921"W	0.00	
4217.00†	25.000	351.700	4035.58	-900.93	899.99	-131.29	40°07'54.496"N	104°39'15.000"W	0.00	
4317.00†	25.000	351.700	4126.21	-942.79	941.81	-137.40	40°07'54.910"N	104°39'15.079"W	0.00	
4417.00†	25.000	351.700	4216.84	-984.65	983.63	-143.50	40°07'55.323"N	104°39'15.157"W	0.00	
4453.59	25.000	351.700	4250.00	-999.97	998.93	-145.73	40°07'55.474"N	104°39'15.186"W	0.00	BEGIN DROP
4517.00†	23.732	351.700	4307.77	-1025.88	1024.82	-149.51	40°07'55.730"N	104°39'15.235"W	2.00	
4579.23†	22.487	351.700	4365.00	-1050.07	1048.99	-153.03	40°07'55.969"N	104°39'15.280"W	2.00	Sussex
4617.00†	21.732	351.700	4399.99	-1064.16	1063.05	-155.08	40°07'56.108"N	104°39'15.306"W	2.00	
4717.00†	19.732	351.700	4493.51	-1099.22	1098.08	-160.19	40°07'56.455"N	104°39'15.372"W	2.00	
4817.00†	17.732	351.700	4588.21	-1131.03	1129.86	-164.83	40°07'56.769"N	104°39'15.432"W	2.00	
4917.00†	15.732	351.700	4683.97	-1159.54	1158.34	-168.98	40°07'57.050"N	104°39'15.485"W	2.00	
5017.00†	13.732	351.700	4780.68	-1184.73	1183.50	-172.65	40°07'57.299"N	104°39'15.533"W	2.00	
5117.00†	11.732	351.700	4878.22	-1206.56	1205.31	-175.84	40°07'57.515"N	104°39'15.574"W	2.00	
5217.00†	9.732	351.700	4976.46	-1225.00	1223.74	-178.52	40°07'57.697"N	104°39'15.608"W	2.00	
5317.00†	7.732	351.700	5075.30	-1240.04	1238.76	-180.72	40°07'57.845"N	104°39'15.637"W	2.00	
5417.00†	5.732	351.700	5174.60	-1251.65	1250.36	-182.41	40°07'57.960"N	104°39'15.658"W	2.00	
5517.00†	3.732	351.700	5274.26	-1259.82	1258.52	-183.60	40°07'58.041"N	104°39'15.674"W	2.00	
5617.00†	1.732	351.700	5374.14	-1264.54	1263.23	-184.29	40°07'58.087"N	104°39'15.683"W	2.00	
5703.59	0.000	179.583	5460.71	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	2.00	END DROP
5717.00†	0.000	179.583	5474.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
5817.00†	0.000	179.583	5574.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
5917.00†	0.000	179.583	5674.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6017.00†	0.000	179.583	5774.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6117.00†	0.000	179.583	5874.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6217.00†	0.000	179.583	5974.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6317.00†	0.000	179.583	6074.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6417.00†	0.000	179.583	6174.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6517.00†	0.000	179.583	6274.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6617.00†	0.000	179.583	6374.13	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	
6670.99	0.000	179.583	6428.11	-1265.84	1264.53	-184.47	40°07'58.100"N	104°39'15.685"W	0.00	KOP, BUILD @ 10°/100'
6717.00†	4.601	179.583	6474.08	-1263.99	1262.68	-184.46	40°07'58.082"N	104°39'15.685"W	10.00	
6817.00†	14.601	179.583	6572.55	-1247.33	1246.02	-184.34	40°07'57.917"N	104°39'15.683"W	10.00	
6917.00†	24.601	179.583	6666.64	-1213.83	1212.52	-184.10	40°07'57.586"N	104°39'15.680"W	10.00	
7017.00†	34.601	179.583	6753.47	-1164.49	1163.19	-183.74	40°07'57.098"N	104°39'15.675"W	10.00	
7117.00†	44.601	179.583	6830.43	-1100.83	1099.53	-183.27	40°07'56.469"N	104°39'15.669"W	10.00	
7139.31†	46.832	179.583	6846.00	-1084.86	1083.56	-183.16	40°07'56.311"N	104°39'15.668"W	10.00	Sharon Springs
7217.00†	54.601	179.583	6895.15	-1024.77	1023.47	-182.72	40°07'55.717"N	104°39'15.662"W	10.00	
7238.00†	56.701	179.583	6907.00	-1007.44	1006.14	-182.59	40°07'55.546"N	104°39'15.661"W	10.00	Niobrara Top
7317.00†	64.601	179.583	6945.69	-938.63	937.33	-182.09	40°07'54.865"N	104°39'15.654"W	10.00	
7372.40†	70.142	179.583	6967.00	-887.51	886.21	-181.72	40°07'54.360"N	104°39'15.649"W	10.00	Niobrara B Bench
7417.00†	74.601	179.583	6980.50	-845.02	843.72	-181.41	40°07'53.940"N	104°39'15.645"W	10.00	
7517.00†	84.601	179.583	6998.53	-746.79	745.49	-180.70	40°07'52.969"N	104°39'15.636"W	10.00	
7562.20	89.121	179.583	7001.00	-701.67	700.38	-180.37	40°07'52.523"N	104°39'15.632"W	10.00	LANDING POINT
7562.20†	89.121	179.583	7001.00	-701.66	700.37	-180.37	40°07'52.523"N	104°39'15.632"W	0.00	Top of Production
7617.00†	89.121	179.583	7001.84	-646.87	645.58	-179.97	40°07'51.981"N	104°39'15.627"W	0.00	

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Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7717.00†	89.121	179.583	7003.38	-546.88	545.59	-179.24	40°07'50.993"N	104°39'15.617"W	0.00	
7817.00†	89.121	179.583	7004.91	-446.89	445.61	-178.51	40°07'50.004"N	104°39'15.608"W	0.00	
7917.00†	89.121	179.583	7006.45	-346.91	345.62	-177.79	40°07'49.016"N	104°39'15.599"W	0.00	
8017.00†	89.121	179.583	7007.98	-246.92	245.64	-177.06	40°07'48.027"N	104°39'15.589"W	0.00	
8117.00†	89.121	179.583	7009.51	-146.93	145.65	-176.33	40°07'47.039"N	104°39'15.580"W	0.00	
8217.00†	89.121	179.583	7011.05	-46.94	45.67	-175.60	40°07'46.050"N	104°39'15.571"W	0.00	
8317.00†	89.121	179.583	7012.58	53.05	-54.32	-174.87	40°07'45.062"N	104°39'15.561"W	0.00	
8417.00†	89.121	179.583	7014.12	153.03	-154.31	-174.15	40°07'44.074"N	104°39'15.552"W	0.00	
8517.00†	89.121	179.583	7015.65	253.02	-254.29	-173.42	40°07'43.085"N	104°39'15.542"W	0.00	
8617.00†	89.121	179.583	7017.18	353.01	-354.28	-172.69	40°07'42.097"N	104°39'15.533"W	0.00	
8717.00†	89.121	179.583	7018.72	453.00	-454.26	-171.96	40°07'41.108"N	104°39'15.524"W	0.00	
8817.00†	89.121	179.583	7020.25	552.99	-554.25	-171.23	40°07'40.120"N	104°39'15.514"W	0.00	
8917.00†	89.121	179.583	7021.79	652.98	-654.23	-170.51	40°07'39.131"N	104°39'15.505"W	0.00	
9017.00†	89.121	179.583	7023.32	752.96	-754.22	-169.78	40°07'38.143"N	104°39'15.496"W	0.00	
9117.00†	89.121	179.583	7024.85	852.95	-854.21	-169.05	40°07'37.154"N	104°39'15.486"W	0.00	
9217.00†	89.121	179.583	7026.39	952.94	-954.19	-168.32	40°07'36.166"N	104°39'15.477"W	0.00	
9317.00†	89.121	179.583	7027.92	1052.93	-1054.18	-167.59	40°07'35.177"N	104°39'15.467"W	0.00	
9417.00†	89.121	179.583	7029.46	1152.92	-1154.16	-166.87	40°07'34.189"N	104°39'15.458"W	0.00	
9517.00†	89.121	179.583	7030.99	1252.91	-1254.15	-166.14	40°07'33.201"N	104°39'15.449"W	0.00	
9617.00†	89.121	179.583	7032.52	1352.89	-1354.13	-165.41	40°07'32.212"N	104°39'15.439"W	0.00	
9717.00†	89.121	179.583	7034.06	1452.88	-1454.12	-164.68	40°07'31.224"N	104°39'15.430"W	0.00	
9817.00†	89.121	179.583	7035.59	1552.87	-1554.10	-163.96	40°07'30.235"N	104°39'15.420"W	0.00	
9917.00†	89.121	179.583	7037.13	1652.86	-1654.09	-163.23	40°07'29.247"N	104°39'15.411"W	0.00	
10017.00†	89.121	179.583	7038.66	1752.85	-1754.08	-162.50	40°07'28.258"N	104°39'15.402"W	0.00	
10117.00†	89.121	179.583	7040.19	1852.83	-1854.06	-161.77	40°07'27.270"N	104°39'15.392"W	0.00	
10217.00†	89.121	179.583	7041.73	1952.82	-1954.05	-161.04	40°07'26.281"N	104°39'15.383"W	0.00	
10317.00†	89.121	179.583	7043.26	2052.81	-2054.03	-160.32	40°07'25.293"N	104°39'15.374"W	0.00	
10417.00†	89.121	179.583	7044.80	2152.80	-2154.02	-159.59	40°07'24.304"N	104°39'15.364"W	0.00	
10517.00†	89.121	179.583	7046.33	2252.79	-2254.00	-158.86	40°07'23.316"N	104°39'15.355"W	0.00	
10617.00†	89.121	179.583	7047.86	2352.78	-2353.99	-158.13	40°07'22.328"N	104°39'15.345"W	0.00	
10717.00†	89.121	179.583	7049.40	2452.76	-2453.97	-157.40	40°07'21.339"N	104°39'15.336"W	0.00	
10817.00†	89.121	179.583	7050.93	2552.75	-2553.96	-156.68	40°07'20.351"N	104°39'15.327"W	0.00	
10917.00†	89.121	179.583	7052.47	2652.74	-2653.95	-155.95	40°07'19.362"N	104°39'15.317"W	0.00	
11017.00†	89.121	179.583	7054.00	2752.73	-2753.93	-155.22	40°07'18.374"N	104°39'15.308"W	0.00	
11117.00†	89.121	179.583	7055.53	2852.72	-2853.92	-154.49	40°07'17.385"N	104°39'15.298"W	0.00	
11217.00†	89.121	179.583	7057.07	2952.71	-2953.90	-153.77	40°07'16.397"N	104°39'15.289"W	0.00	
11317.00†	89.121	179.583	7058.60	3052.69	-3053.89	-153.04	40°07'15.408"N	104°39'15.280"W	0.00	
11417.00†	89.121	179.583	7060.14	3152.68	-3153.87	-152.31	40°07'14.420"N	104°39'15.270"W	0.00	
11517.00†	89.121	179.583	7061.67	3252.67	-3253.86	-151.58	40°07'13.431"N	104°39'15.261"W	0.00	
11617.00†	89.121	179.583	7063.20	3352.66	-3353.84	-150.85	40°07'12.443"N	104°39'15.252"W	0.00	
11717.00†	89.121	179.583	7064.74	3452.65	-3453.83	-150.13	40°07'11.455"N	104°39'15.242"W	0.00	
11817.00†	89.121	179.583	7066.27	3552.63	-3553.82	-149.40	40°07'10.466"N	104°39'15.233"W	0.00	
11917.00†	89.121	179.583	7067.81	3652.62	-3653.80	-148.67	40°07'09.478"N	104°39'15.223"W	0.00	
12017.00†	89.121	179.583	7069.34	3752.61	-3753.79	-147.94	40°07'08.489"N	104°39'15.214"W	0.00	
12117.00†	89.121	179.583	7070.88	3852.60	-3853.77	-147.21	40°07'07.501"N	104°39'15.205"W	0.00	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#04 POWERS 35N-22HZ
Area	Compass Import	Well	POWERS 35N-22HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12217.00†	89.121	179.583	7072.41	3952.59	-3953.76	-146.49	40°07'06.512"N	104°39'15.195"W	0.00	
12317.00†	89.121	179.583	7073.94	4052.58	-4053.74	-145.76	40°07'05.524"N	104°39'15.186"W	0.00	
12417.00†	89.121	179.583	7075.48	4152.56	-4153.73	-145.03	40°07'04.535"N	104°39'15.177"W	0.00	
12517.00†	89.121	179.583	7077.01	4252.55	-4253.71	-144.30	40°07'03.547"N	104°39'15.167"W	0.00	
12617.00†	89.121	179.583	7078.55	4352.54	-4353.70	-143.57	40°07'02.558"N	104°39'15.158"W	0.00	
12717.00†	89.121	179.583	7080.08	4452.53	-4453.69	-142.85	40°07'01.570"N	104°39'15.148"W	0.00	
12777.02	89.121	179.583	7081.00†	4512.54	-4513.69	-142.41	40°07'00.977"N	104°39'15.143"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS										
- Ref Wellbore: POWERS 35N-22HZ PWB      Ref Wellpath: POWERS 35N-22HZ (PERMIT REV-3) 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	1362.00	1345.00	17.00	1362.00	0.00	0.00	0.00	0.00	
9.625in Casing Surface	17.00	1362.00	1345.00	17.00	1362.00	0.00	0.00	0.00	0.00	
8.5in Open Hole	1362.00	12777.02	11415.02	1362.00	7081.00	0.00	0.00	-4513.69	-142.41	
5.5in Casing Production	17.00	12777.02	12760.02	17.00	7081.00	0.00	0.00	-4513.69	-142.41	

TARGETS										
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
POWERS 35N-22HZ_SHL		4900.00	0.00	0.00	1737216.05	14574017.94	40°07'45.599"N	104°39'13.309"W	point	
SEC.22-T2N-R65W		4900.00	0.00	0.00	1737216.05	14574017.94	40°07'45.599"N	104°39'13.309"W	polygon	
1) POWERS 35N-22HZ_BHL	12777.02	7081.00	-4513.69	-142.41	1737091.22	14569503.73	40°07'00.977"N	104°39'15.143"W	point	

SURVEY PROGRAM - Ref Wellbore: POWERS 35N-22HZ PWB      Ref Wellpath: POWERS 35N-22HZ (PERMIT REV-3) PWP										
Start MD [ft]	End MD [ft]	Positional Uncertainty Model					Log Name/Comment		Wellbore	
17.00	12777.02	ISCWSA MWD, Rev. 2, axial magnetic correction (Standard) (MagVAR IFR Wattenberg)							POWERS 35N-22HZ PWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP_1	Slot	SLOT#04 POWERS 35N-22HZ
Area	Compass Import	Well	POWERS 35N-22HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TRUE NORTH)	Wellbore	POWERS 35N-22HZ PWB
Facility	2N-65W-22 Offsets		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1312.00	0.000	351.700	1312.00	Fox Hills Base	
4579.23	22.487	351.700	4365.00	Sussex	
7139.31	46.832	179.583	6846.00	Sharon Springs	
7238.00	56.701	179.583	6907.00	Niobrara Top	
7372.40	70.142	179.583	6967.00	Niobrara B Bench	
7562.20	89.121	179.583	7001.00	Top of Production	

DESIGN COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
17.00	0.000	351.700	17.00	TIE-ON	
1450.00	0.000	351.700	1450.00	BEGIN NUDGE	
2700.00	25.000	351.700	2660.71	END NUDGE	
4453.59	25.000	351.700	4250.00	BEGIN DROP	
5703.59	0.000	179.583	5460.71	END DROP	
6670.99	0.000	179.583	6428.11	KOP, BUILD @ 10°/100'	
7562.20	89.121	179.583	7001.00	LANDING POINT	
12777.02	89.121	179.583	7081.00	TOTAL DEPTH	