

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 GE POWERS 29G-26HZ (400FNL & 1350FWL, SEC.23)
Field: WELD COUNTY (UTM (ZONE 13)/NAD83/TN) Well: GE POWERS 29G-26HZ
Facility: 2N-65W-23 Wellbore: GE POWERS 29G-26HZ PWB

Plot reference wellpath is GE POWERS 29G-26HZ (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: 4907 feet Scale: Grid distance
Mean Sea Level to Mud line (At Slot: SLOT#04 GE POWERS 29G-26HZ (400FNL & 1350FWL, SEC.23)): 0 feet Depths are in feet
Coordinates are in feet referenced to Slot Created by: amarcar on 20/Jul/2015

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
2N-65W-23 Offsets			1743038.821	14574304.203	40°07'48.198"N	104°37'58.303"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#04 GE POWERS 29G-26HZ (400FNL & 1350FWL, SEC.23)	68.49	-826.53	1742212.015	14574369.284	40°07'48.875"N	104°38'08.948"W
PERMIT (17KB) (RKB) to Mud line (At Slot: SLOT#04 GE POWERS 29G-26HZ (400FNL & 1350FWL, SEC.23))					4907ft	
Mean Sea Level to Mud line (At Slot: SLOT#04 GE POWERS 29G-26HZ (400FNL & 1350FWL, SEC.23))					0ft	
PERMIT (17KB) (RKB) to Mean Sea Level					4907ft	

Survey Program

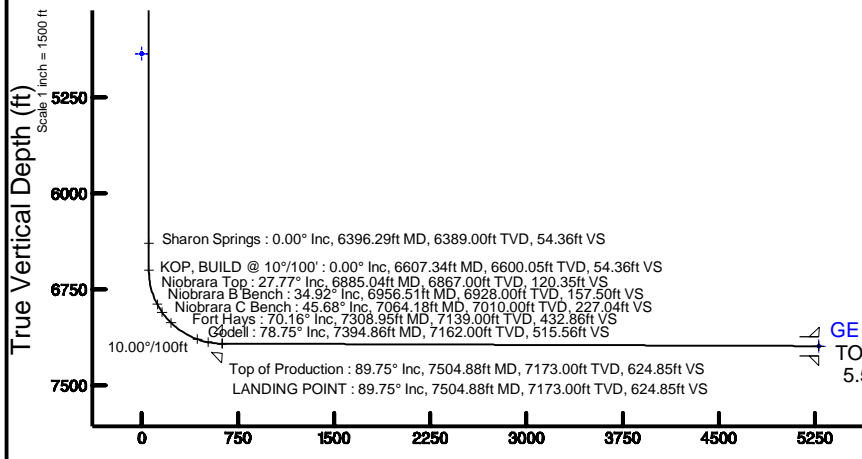
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	1807.29	ISOWSA MWD, Rev. 2	Custom_APC_ISOWSA REV 2 MWD		GE POWERS 29G-26HZ PWB
1807.29	12162.17	ISOWSA MWD, Rev. 2, axial magnetic correction	Custom APC_ISOWSA REV 2 MWD+FR1+SC (approximation)		GE POWERS 29G-26HZ PWB

Targets

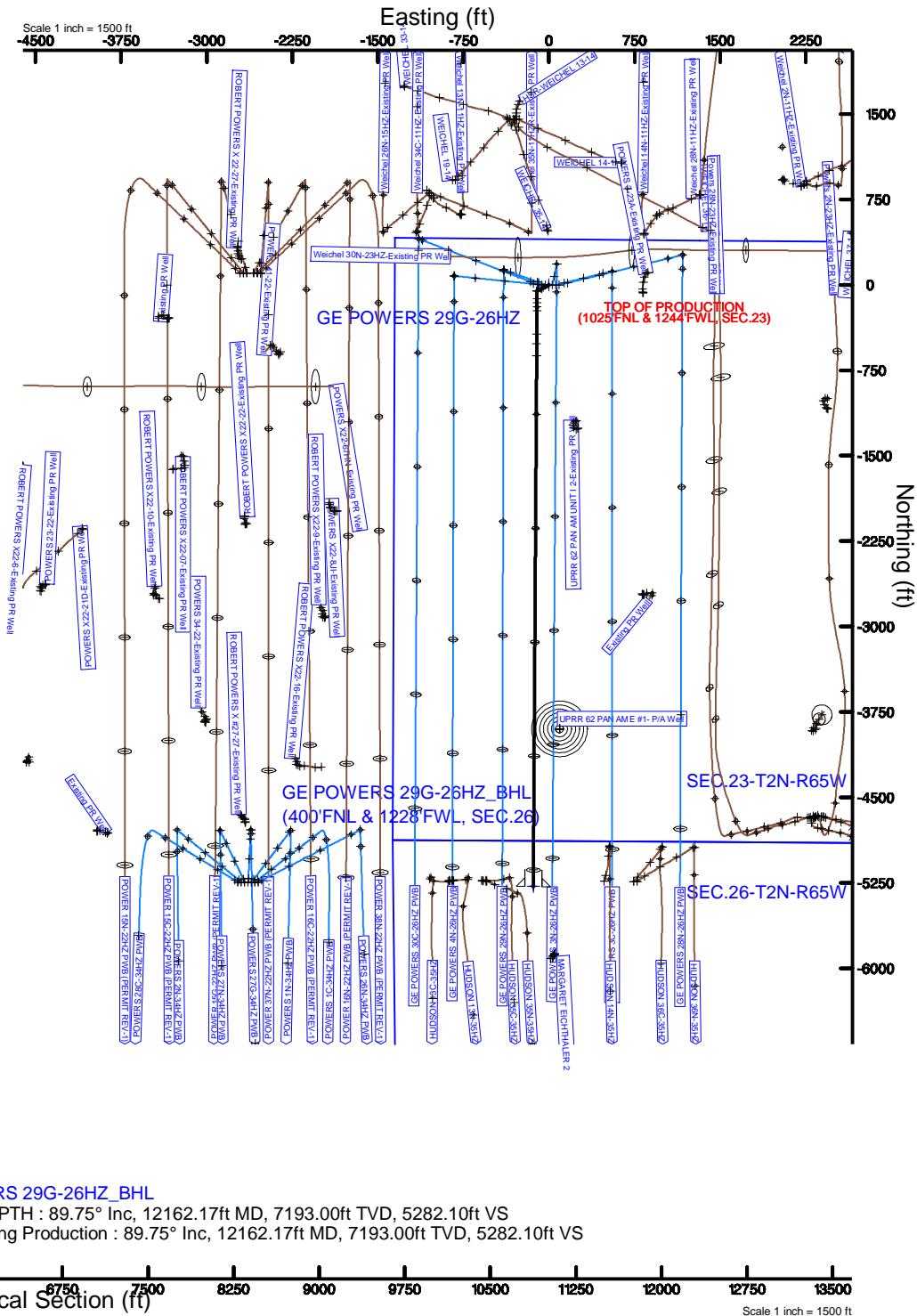
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
GE POWERS 29G-26HZ_SHL	4907.00	0.00	0.00	0.00	1742212.02	14574369.28	40°07'48.875"N	104°38'08.948"W
SEC.23-T2N-R65W	4907.00	0.71	-90.07	-90.07	1742121.95	14574369.62	40°07'48.882"N	104°38'10.108"W
SEC.26-T2N-R65W	4907.00	0.71	-90.07	-90.07	1742121.95	14574369.62	40°07'48.882"N	104°38'10.108"W
GE POWERS 29G-26HZ_BHL	12162.17	7193.00	-5281.33	-137.62	1742096.03	14569087.44	40°06'56.664"N	104°38'10.720"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	0.000	242.759	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	250.00	0.000	242.759	250.00	0.00	0.00	0.00	0.00
END NUDGE	916.67	10.000	242.759	913.29	-26.56	-51.59	1.50	26.89
BEGIN DROP	1007.37	10.000	242.759	1002.61	-33.77	-65.60	0.00	34.19
END DROP	1507.37	0.000	180.365	1500.07	-53.69	-104.29	2.00	54.36
KOP_BUILD @ 10°/100'	6607.34	0.000	180.365	6600.05	-53.69	-104.29	0.00	54.36
LANDING POINT	7504.88	89.754	180.365	7173.00	-624.18	-107.93	10.00	624.85
TOTAL DEPTH	12162.17	89.754	180.365	7193.00	-5281.33	-137.62	0.00	5282.10



Azimuth 180.37° with reference 0.00 N, 0.00 E



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23)
Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Amarcar
Scale	0.999612	Report Generated	20/Jul/2015 at 13:40
Convergence at slot	0.23° East	Database/Source file	WellArchitectDB/GE_POWERS_29G-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	68.49	-826.53	1742212.02	14574369.28	40°07'48.875"N	104°38'08.948"W
Facility Reference Pt			1743038.82	14574304.20	40°07'48.198"N	104°37'58.303"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-23 Offsets vertical datum	4907.00ft
Horizontal Reference Pt	Slot	PERMIT (17'KB) (RKB) to Mean Sea Level	4907.00ft
Vertical Reference Pt	PERMIT (17'KB) (RKB)	PERMIT (17'KB) (RKB) to Mud Line at Slot (SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23))	4907.00ft
MD Reference Pt	PERMIT (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.37°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23)
Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

WELLPATH DATA (139 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	242.759	0.00	0.00	0.00	0.00	40°07'48.875"N	104°38'08.948"W	0.00	
17.00	0.000	242.759	17.00	0.00	0.00	0.00	40°07'48.875"N	104°38'08.948"W	0.00	TIE-ON
117.00†	0.000	242.759	117.00	0.00	0.00	0.00	40°07'48.875"N	104°38'08.948"W	0.00	
217.00†	0.000	242.759	217.00	0.00	0.00	0.00	40°07'48.875"N	104°38'08.948"W	0.00	
250.00	0.000	242.759	250.00	0.00	0.00	0.00	40°07'48.875"N	104°38'08.948"W	0.00	BEGIN NUDGE
317.00†	1.005	242.759	317.00	0.27	-0.27	-0.52	40°07'48.872"N	104°38'08.955"W	1.50	
417.00†	2.505	242.759	416.95	1.69	-1.67	-3.25	40°07'48.858"N	104°38'08.990"W	1.50	
517.00†	4.005	242.759	516.78	4.32	-4.27	-8.29	40°07'48.833"N	104°38'09.055"W	1.50	
617.00†	5.505	242.759	616.44	8.16	-8.06	-15.66	40°07'48.795"N	104°38'09.150"W	1.50	
717.00†	7.005	242.759	715.84	13.21	-13.05	-25.35	40°07'48.746"N	104°38'09.274"W	1.50	
817.00†	8.505	242.759	814.92	19.46	-19.23	-37.35	40°07'48.685"N	104°38'09.429"W	1.50	
916.67	10.000	242.759	913.29	26.89	-26.56	-51.59	40°07'48.612"N	104°38'09.612"W	1.50	END NUDGE
917.00†	10.000	242.759	913.62	26.92	-26.59	-51.65	40°07'48.612"N	104°38'09.613"W	0.00	
1007.37	10.000	242.759	1002.61	34.19	-33.77	-65.60	40°07'48.541"N	104°38'09.793"W	0.00	BEGIN DROP
1017.00†	9.807	242.759	1012.10	34.96	-34.53	-67.07	40°07'48.534"N	104°38'09.812"W	2.00	
1117.00†	7.807	242.759	1110.91	42.05	-41.54	-80.68	40°07'48.464"N	104°38'09.987"W	2.00	
1217.00†	5.807	242.759	1210.20	47.54	-46.96	-91.22	40°07'48.411"N	104°38'10.123"W	2.00	
1317.00†	3.807	242.759	1309.85	51.43	-50.80	-98.67	40°07'48.373"N	104°38'10.219"W	2.00	
1354.22†	3.063	242.759	1347.00	52.46	-51.82	-100.65	40°07'48.363"N	104°38'10.244"W	2.00	Fox Hills Marker
1417.00†	1.807	242.759	1409.72	53.70	-53.04	-103.03	40°07'48.351"N	104°38'10.275"W	2.00	
1507.37	0.000	180.365	1500.07	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	2.00	END DROP
1517.00†	0.000	180.365	1509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
1617.00†	0.000	180.365	1609.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
1717.00†	0.000	180.365	1709.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
1817.00†	0.000	180.365	1809.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
1917.00†	0.000	180.365	1909.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2017.00†	0.000	180.365	2009.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2117.00†	0.000	180.365	2109.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2217.00†	0.000	180.365	2209.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2317.00†	0.000	180.365	2309.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2417.00†	0.000	180.365	2409.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2517.00†	0.000	180.365	2509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2617.00†	0.000	180.365	2609.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2717.00†	0.000	180.365	2709.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2817.00†	0.000	180.365	2809.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
2917.00†	0.000	180.365	2909.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3017.00†	0.000	180.365	3009.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3117.00†	0.000	180.365	3109.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3217.00†	0.000	180.365	3209.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3317.00†	0.000	180.365	3309.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3417.00†	0.000	180.365	3409.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3517.00†	0.000	180.365	3509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3617.00†	0.000	180.365	3609.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3717.00†	0.000	180.365	3709.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
3817.00†	0.000	180.365	3809.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
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Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

WELLPATH DATA (139 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	180.365	3909.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4017.00†	0.000	180.365	4009.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4117.00†	0.000	180.365	4109.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4217.00†	0.000	180.365	4209.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4317.00†	0.000	180.365	4309.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4417.00†	0.000	180.365	4409.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4498.29†	0.000	180.365	4491.00	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	Sussex
4517.00†	0.000	180.365	4509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4617.00†	0.000	180.365	4609.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4717.00†	0.000	180.365	4709.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4817.00†	0.000	180.365	4809.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
4917.00†	0.000	180.365	4909.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5017.00†	0.000	180.365	5009.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5117.00†	0.000	180.365	5109.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5217.00†	0.000	180.365	5209.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5317.00†	0.000	180.365	5309.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5417.00†	0.000	180.365	5409.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5517.00†	0.000	180.365	5509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5617.00†	0.000	180.365	5609.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5717.00†	0.000	180.365	5709.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5817.00†	0.000	180.365	5809.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
5917.00†	0.000	180.365	5909.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6017.00†	0.000	180.365	6009.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6117.00†	0.000	180.365	6109.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6217.00†	0.000	180.365	6209.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6317.00†	0.000	180.365	6309.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6396.29†	0.000	180.365	6389.00	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	Sharon Springs
6417.00†	0.000	180.365	6409.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6517.00†	0.000	180.365	6509.71	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	
6607.34	0.000	180.365	6600.05	54.36	-53.69	-104.29	40°07'48.344"N	104°38'10.291"W	0.00	KOP, BUILD @ 10°/100'
6617.00†	0.966	180.365	6609.71	54.44	-53.77	-104.29	40°07'48.343"N	104°38'10.291"W	10.00	
6717.00†	10.966	180.365	6709.04	64.82	-64.16	-104.36	40°07'48.241"N	104°38'10.292"W	10.00	
6817.00†	20.966	180.365	6805.06	92.29	-91.63	-104.53	40°07'47.969"N	104°38'10.294"W	10.00	
6885.04†	27.770	180.365	6867.00	120.35	-119.68	-104.71	40°07'47.692"N	104°38'10.297"W	10.00	Niobrara Top
6917.00†	30.966	180.365	6894.85	136.02	-135.35	-104.81	40°07'47.537"N	104°38'10.298"W	10.00	
6956.51†	34.917	180.365	6928.00	157.50	-156.83	-104.95	40°07'47.325"N	104°38'10.300"W	10.00	Niobrara B Bench
7017.00†	40.966	180.365	6975.69	194.68	-194.01	-105.19	40°07'46.957"N	104°38'10.303"W	10.00	
7064.18†	45.684	180.365	7010.00	227.04	-226.37	-105.39	40°07'46.637"N	104°38'10.305"W	10.00	Niobrara C Bench
7117.00†	50.966	180.365	7045.11	266.48	-265.81	-105.64	40°07'46.247"N	104°38'10.309"W	10.00	
7217.00†	60.966	180.365	7101.00	349.24	-348.57	-106.17	40°07'45.429"N	104°38'10.315"W	10.00	
7308.95†	70.161	180.365	7139.00	432.86	-432.19	-106.71	40°07'44.602"N	104°38'10.322"W	10.00	Fort Hays
7317.00†	70.966	180.365	7141.68	440.46	-439.79	-106.75	40°07'44.527"N	104°38'10.323"W	10.00	
7394.86†	78.752	180.365	7162.00	515.56	-514.88	-107.23	40°07'43.785"N	104°38'10.329"W	10.00	Codell
7417.00†	80.966	180.365	7165.90	537.35	-536.68	-107.37	40°07'43.569"N	104°38'10.331"W	10.00	
7504.88	89.754	180.365	7173.00 ²	624.85	-624.18	-107.93	40°07'42.704"N	104°38'10.338"W	10.00	LANDING POINT

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23)
Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7504.88†	89.754	180.365	7173.00	624.85	-624.18	-107.93	40°07'42.704"N	104°38'10.338"W	0.00	Top of Production
7517.00†	89.754	180.365	7173.05	636.97	-636.30	-108.01	40°07'42.585"N	104°38'10.339"W	0.00	
7617.00†	89.754	180.365	7173.48	736.97	-736.30	-108.64	40°07'41.596"N	104°38'10.347"W	0.00	
7717.00†	89.754	180.365	7173.91	836.97	-836.29	-109.28	40°07'40.607"N	104°38'10.355"W	0.00	
7817.00†	89.754	180.365	7174.34	936.97	-936.29	-109.92	40°07'39.619"N	104°38'10.364"W	0.00	
7917.00†	89.754	180.365	7174.77	1036.97	-1036.29	-110.56	40°07'38.630"N	104°38'10.372"W	0.00	
8017.00†	89.754	180.365	7175.20	1136.97	-1136.28	-111.19	40°07'37.642"N	104°38'10.380"W	0.00	
8117.00†	89.754	180.365	7175.63	1236.97	-1236.28	-111.83	40°07'36.653"N	104°38'10.388"W	0.00	
8217.00†	89.754	180.365	7176.06	1336.97	-1336.28	-112.47	40°07'35.665"N	104°38'10.396"W	0.00	
8317.00†	89.754	180.365	7176.49	1436.97	-1436.28	-113.11	40°07'34.676"N	104°38'10.405"W	0.00	
8417.00†	89.754	180.365	7176.92	1536.97	-1536.27	-113.74	40°07'33.687"N	104°38'10.413"W	0.00	
8517.00†	89.754	180.365	7177.35	1636.97	-1636.27	-114.38	40°07'32.699"N	104°38'10.421"W	0.00	
8617.00†	89.754	180.365	7177.78	1736.96	-1736.27	-115.02	40°07'31.710"N	104°38'10.429"W	0.00	
8717.00†	89.754	180.365	7178.21	1836.96	-1836.26	-115.66	40°07'30.722"N	104°38'10.437"W	0.00	
8817.00†	89.754	180.365	7178.63	1936.96	-1936.26	-116.29	40°07'29.733"N	104°38'10.446"W	0.00	
8917.00†	89.754	180.365	7179.06	2036.96	-2036.26	-116.93	40°07'28.745"N	104°38'10.454"W	0.00	
9017.00†	89.754	180.365	7179.49	2136.96	-2136.26	-117.57	40°07'27.756"N	104°38'10.462"W	0.00	
9117.00†	89.754	180.365	7179.92	2236.96	-2236.25	-118.21	40°07'26.768"N	104°38'10.470"W	0.00	
9217.00†	89.754	180.365	7180.35	2336.96	-2336.25	-118.84	40°07'25.779"N	104°38'10.478"W	0.00	
9317.00†	89.754	180.365	7180.78	2436.96	-2436.25	-119.48	40°07'24.790"N	104°38'10.487"W	0.00	
9417.00†	89.754	180.365	7181.21	2536.96	-2536.24	-120.12	40°07'23.802"N	104°38'10.495"W	0.00	
9517.00†	89.754	180.365	7181.64	2636.96	-2636.24	-120.76	40°07'22.813"N	104°38'10.503"W	0.00	
9617.00†	89.754	180.365	7182.07	2736.96	-2736.24	-121.39	40°07'21.825"N	104°38'10.511"W	0.00	
9717.00†	89.754	180.365	7182.50	2836.95	-2836.23	-122.03	40°07'20.836"N	104°38'10.519"W	0.00	
9817.00†	89.754	180.365	7182.93	2936.95	-2936.23	-122.67	40°07'19.848"N	104°38'10.528"W	0.00	
9917.00†	89.754	180.365	7183.36	3036.95	-3036.23	-123.31	40°07'18.859"N	104°38'10.536"W	0.00	
10017.00†	89.754	180.365	7183.79	3136.95	-3136.23	-123.94	40°07'17.870"N	104°38'10.544"W	0.00	
10117.00†	89.754	180.365	7184.22	3236.95	-3236.22	-124.58	40°07'16.882"N	104°38'10.552"W	0.00	
10217.00†	89.754	180.365	7184.65	3336.95	-3336.22	-125.22	40°07'15.893"N	104°38'10.560"W	0.00	
10317.00†	89.754	180.365	7185.08	3436.95	-3436.22	-125.86	40°07'14.905"N	104°38'10.569"W	0.00	
10417.00†	89.754	180.365	7185.51	3536.95	-3536.21	-126.49	40°07'13.916"N	104°38'10.577"W	0.00	
10517.00†	89.754	180.365	7185.94	3636.95	-3636.21	-127.13	40°07'12.928"N	104°38'10.585"W	0.00	
10617.00†	89.754	180.365	7186.36	3736.95	-3736.21	-127.77	40°07'11.939"N	104°38'10.593"W	0.00	
10717.00†	89.754	180.365	7186.79	3836.95	-3836.21	-128.41	40°07'10.950"N	104°38'10.601"W	0.00	
10817.00†	89.754	180.365	7187.22	3936.94	-3936.20	-129.04	40°07'09.962"N	104°38'10.610"W	0.00	
10917.00†	89.754	180.365	7187.65	4036.94	-4036.20	-129.68	40°07'08.973"N	104°38'10.618"W	0.00	
11017.00†	89.754	180.365	7188.08	4136.94	-4136.20	-130.32	40°07'07.985"N	104°38'10.626"W	0.00	
11117.00†	89.754	180.365	7188.51	4236.94	-4236.19	-130.96	40°07'06.996"N	104°38'10.634"W	0.00	
11217.00†	89.754	180.365	7188.94	4336.94	-4336.19	-131.59	40°07'06.008"N	104°38'10.642"W	0.00	
11317.00†	89.754	180.365	7189.37	4436.94	-4436.19	-132.23	40°07'05.019"N	104°38'10.651"W	0.00	
11417.00†	89.754	180.365	7189.80	4536.94	-4536.18	-132.87	40°07'04.031"N	104°38'10.659"W	0.00	
11517.00†	89.754	180.365	7190.23	4636.94	-4636.18	-133.51	40°07'03.042"N	104°38'10.667"W	0.00	
11617.00†	89.754	180.365	7190.66	4736.94	-4736.18	-134.14	40°07'02.053"N	104°38'10.675"W	0.00	
11717.00†	89.754	180.365	7191.09	4836.94	-4836.18	-134.78	40°07'01.065"N	104°38'10.683"W	0.00	
11817.00†	89.754	180.365	7191.52	4936.94	-4936.17	-135.42	40°07'00.076"N	104°38'10.692"W	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23)
Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11917.00†	89.754	180.365	7191.95	5036.93	-5036.17	-136.06	40°06'59.088"N	104°38'10.700"W	0.00	
12017.00†	89.754	180.365	7192.38	5136.93	-5136.17	-136.69	40°06'58.099"N	104°38'10.708"W	0.00	
12117.00†	89.754	180.365	7192.81	5236.93	-5236.16	-137.33	40°06'57.111"N	104°38'10.716"W	0.00	
12162.17	89.754	180.365	7193.00 ²	5282.10	-5281.33	-137.62	40°06'56.664"N	104°38'10.720"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS -										
Ref Wellbore: GE POWERS 29G-26HZ PWB					Ref Wellpath: GE POWERS 29G-26HZ (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	1807.29	1790.29	17.00	1800.00	0.00	0.00	-53.69	-104.29	
9.625in Casing Surface	17.00	1807.29	1790.29	17.00	1800.00	0.00	0.00	-53.69	-104.29	
7.875in Open Hole	1807.29	12162.17	10354.88	1800.00	7193.00	-53.69	-104.29	-5281.33	-137.62	
5.5in Casing Production	17.00	12162.17	12145.17	17.00	7193.00	0.00	0.00	-5281.33	-137.62	

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GE POWERS 29G-26HZ_SHL		4907.00	0.00	0.00	1742212.02	14574369.28	40°07'48.875"N	104°38'08.948"W	point
SEC.23-T2N-R65W		4907.00	0.71	-90.07	1742121.95	14574369.62	40°07'48.882"N	104°38'10.108"W	polygon
SEC.26-T2N-R65W		4907.00	0.71	-90.07	1742121.95	14574369.62	40°07'48.882"N	104°38'10.108"W	polygon
2) GE POWERS 29G-26HZ_BHL	12162.17	7193.00	-5281.33	-137.62	1742096.03	14569087.44	40°06'56.664"N	104°38'10.720"W	point

SURVEY PROGRAM - Ref Wellbore: GE POWERS 29G-26HZ PWB					Ref Wellpath: GE POWERS 29G-26HZ (PERMIT-REV-3) PWP		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore	
17.00	1807.29	Custom_APC_ISCWSA REV 2 MWD				GE POWERS 29G-26HZ PWB	
1807.29	12162.17	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)				GE POWERS 29G-26HZ PWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 GE POWERS 29G-26HZ (400'FNL & 1350'FWL, SEC.23)
Area	Compass Import	Well	GE POWERS 29G-26HZ
Field	WELD COUNTY (UTM (ZONE 13)/NAD83/TN)	Wellbore	GE POWERS 29G-26HZ PWB
Facility	2N-65W-23 Offsets		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1354.22	3.063	242.759	1347.00	Fox Hills Marker
4498.29	0.000	180.365	4491.00	Sussex
6396.29	0.000	180.365	6389.00	Sharon Springs
6885.04	27.770	180.365	6867.00	Niobrara Top
6956.51	34.917	180.365	6928.00	Niobrara B Bench
7064.18	45.684	180.365	7010.00	Niobrara C Bench
7308.95	70.161	180.365	7139.00	Fort Hays
7394.86	78.752	180.365	7162.00	Codell
7504.88	89.754	180.365	7173.00	Top of Production

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	242.759	17.00	TIE-ON
250.00	0.000	242.759	250.00	BEGIN NUDGE
916.67	10.000	242.759	913.29	END NUDGE
1007.37	10.000	242.759	1002.61	BEGIN DROP
1507.37	0.000	180.365	1500.07	END DROP
6607.34	0.000	180.365	6600.05	KOP, BUILD @ 10°/100'
7504.88	89.754	180.365	7173.00	LANDING POINT
12162.17	89.754	180.365	7193.00	TOTAL DEPTH