

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Field: WELD COUNTY (KERR MCGEE) Well: HENRICKSON 13C-18HZ
Facility: SEC.07-T3N-R66W Wellbore: HENRICKSON 13C-18HZ PWB

Plot reference wellpath is HENRICKSON 13C-18HZ (PERMIT REV-A) PWP

True vertical depths are referenced to Rig on SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB)
Measured depths are referenced to Rig on SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB)
Rig on SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB) to Mean Sea Level: 4810 feet
Mean Sea Level to Mud line (in Slot: SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)): 0 feet
Coordinates are in feet referenced to Slot
Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
North Reference: True north
Scale: True distance
Depths are in feet
Created by preclin on 5/24/2013

Location Information

Facility Name				Grid East (US 11)	Grid North (US 11)	Latitude	Longitude
SEC.07-T3N-R66W				318797.460	1329743.580	40°14'11.713"N	104°49'37.103"W
Slot	Local N (ft)	Local E (ft)	Grid East (US 11)	Grid North (US 11)	Latitude	Longitude	
SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)	1000.00	-1888.40	318797.460	1329743.580	40°14'11.713"N	104°49'37.103"W	
Rig on SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB) to Mud line (in Slot: SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07))							4810ft
Mean Sea Level to Mud line (in Slot: SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07))							0ft
Rig on SLO#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB) to Mean Sea Level							4810ft

Survey Program

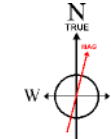
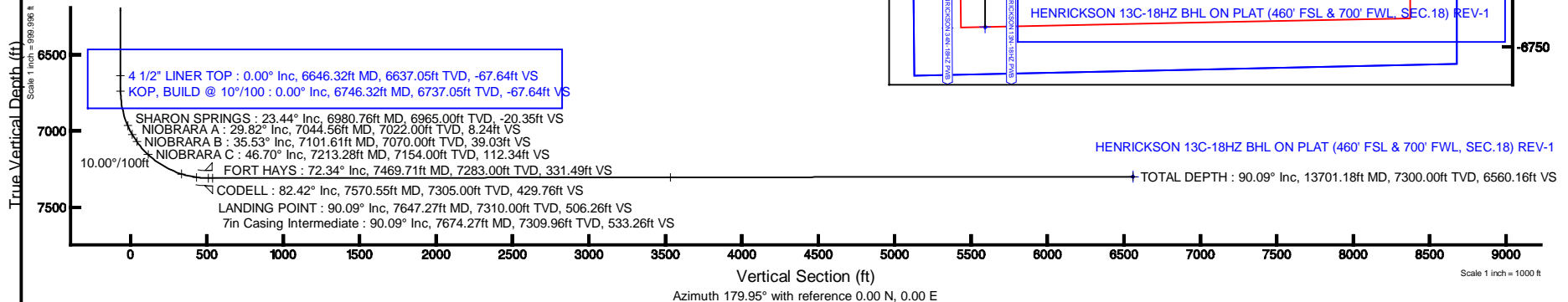
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
17.00	7674.27	NaviTrak	NaviTrak (MagCorr)		HENRICKSON 13C-18HZ PWB
7674.27	13701.18	OnTrak	OnTrak (MagCorr)		HENRICKSON 13C-18HZ PWB

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	300.000	17.00	0.00	0.00	0.00	0.00
BEGIN NUDGE	1250.00	0.000	300.000	1250.00	0.00	0.00	0.00	0.00
END NUDGE	1750.00	10.000	300.000	1747.47	21.76	-37.69	2.00	-21.79
BEGIN DROP	2026.74	10.000	300.000	2020.00	45.79	-79.31	0.00	-45.85
END DROP	2526.74	0.000	179.954	2517.47	67.55	-117.00	2.00	-67.64
KOP, BUILD @ 10°/100	6746.32	0.000	179.954	6737.05	67.55	-117.00	0.00	-67.64
LANDING POINT	7647.27	90.095	179.954	7310.00	-506.35	-116.54	10.00	506.26
TOTAL DEPTH	13701.18	90.095	179.954	7300.00	-6560.26	-111.71	0.00	6560.16

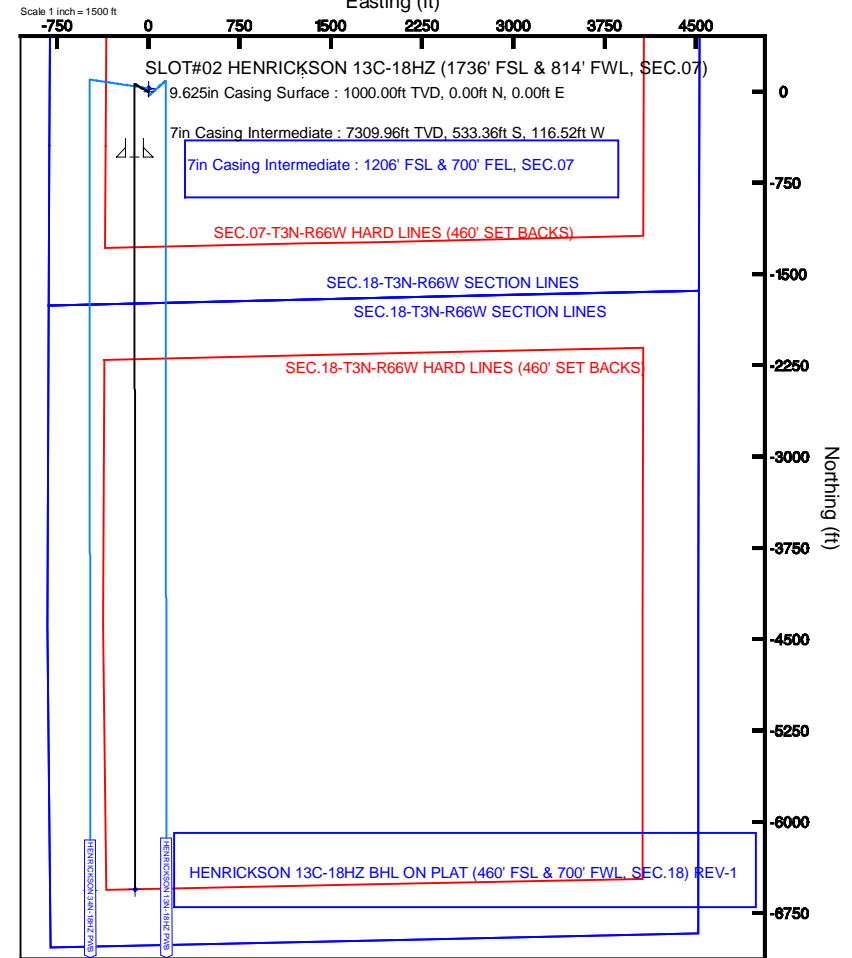
Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US 11)	Grid North (US 11)	Latitude	Longitude
SEC.07-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W
SEC.07-T3N-R66W SECTION LINES		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W
SEC.18-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W
SEC.18-T3N-R66W SECTION LINES		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W
HENRICKSON 13C-18HZ BHL ON PLAT (460' FSL & 700' FWL, SEC.18) REV-1	13701.18	7300.00	-6560.26	-111.71	3187833.31	1323152.68	40°13'06.586"N	104°49'38.543"W



BGGM (1945.0 to 2014.0) Dip: 66.81° Field: 52735.3 nT
Magnetic North is 8.67 degrees East of True North (at 5/23/2013)

To correct azimuth from Magnetic to True add 8.67 degrees
For example: If the Magnetic North Azimuth = 90° plus the True North Azimuth = 90 + 8.67 = 98.67



HENRICKSON 13C-18HZ BHL ON PLAT (460' FSL & 700' FWL, SEC.18) REV-1

TOTAL DEPTH : 90.09° Inc, 13701.18ft MD, 7300.00ft TVD, 6560.16ft VS



Planned Wellpath Report
HENRICKSON 13C-18HZ (PERMIT REV-A) PWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect@ 3.0.2
North Reference	True	User	Precain
Scale	0.999957	Report Generated	5/24/2013 at 9:26:48 AM
Convergence at slot	0.43° East	Database/Source file	WellArchitectDB/HENRICKSON_13C-18HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1693.13	-1889.40	3187895.22	1329713.30	40°14'11.414"N	104°49'37.103"W
Facility Reference Pt			3189797.46	1328034.78	40°13'54.683"N	104°49'12.741"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Rig on SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB)
MD Reference Pt	Rig on SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07) (RKB)
Field Vertical Reference	Mean Sea Level

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

WELLPATH DATA (155 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	300.000	0.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
17.00	0.000	300.000	17.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	TIE-ON
117.00†	0.000	300.000	117.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
217.00†	0.000	300.000	217.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
317.00†	0.000	300.000	317.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
417.00†	0.000	300.000	417.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
516.00†	0.000	300.000	516.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	FOX HILLS BASE
517.00†	0.000	300.000	517.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
617.00†	0.000	300.000	617.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
717.00†	0.000	300.000	717.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
817.00†	0.000	300.000	817.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
917.00†	0.000	300.000	917.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
1017.00†	0.000	300.000	1017.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
1117.00†	0.000	300.000	1117.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
1217.00†	0.000	300.000	1217.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	
1250.00	0.000	300.000	1250.00	0.00	0.00	0.00	40°14'11.414"N	104°49'37.103"W	0.00	BEGIN NUDGE
1317.00†	1.340	300.000	1316.99	-0.39	0.39	-0.68	40°14'11.418"N	104°49'37.112"W	2.00	
1417.00†	3.340	300.000	1416.91	-2.44	2.43	-4.21	40°14'11.438"N	104°49'37.157"W	2.00	
1517.00†	5.340	300.000	1516.61	-6.23	6.22	-10.77	40°14'11.475"N	104°49'37.242"W	2.00	
1617.00†	7.340	300.000	1616.00	-11.75	11.74	-20.33	40°14'11.530"N	104°49'37.365"W	2.00	
1717.00†	9.340	300.000	1714.93	-19.02	18.99	-32.89	40°14'11.602"N	104°49'37.527"W	2.00	
1750.00	10.000	300.000	1747.47	-21.79	21.76	-37.69	40°14'11.629"N	104°49'37.589"W	2.00	END NUDGE
1817.00†	10.000	300.000	1813.45	-27.62	27.58	-47.77	40°14'11.687"N	104°49'37.719"W	0.00	
1917.00†	10.000	300.000	1911.93	-36.31	36.26	-62.81	40°14'11.772"N	104°49'37.913"W	0.00	
2017.00†	10.000	300.000	2010.41	-45.01	44.94	-77.84	40°14'11.858"N	104°49'38.107"W	0.00	
2026.74	10.000	300.000	2020.00	-45.85	45.79	-79.31	40°14'11.866"N	104°49'38.126"W	0.00	BEGIN DROP
2117.00†	8.195	300.000	2109.12	-53.00	52.92	-91.67	40°14'11.937"N	104°49'38.285"W	2.00	
2217.00†	6.195	300.000	2208.33	-59.27	59.19	-102.51	40°14'11.999"N	104°49'38.425"W	2.00	
2317.00†	4.195	300.000	2307.91	-63.80	63.71	-110.35	40°14'12.044"N	104°49'38.526"W	2.00	
2417.00†	2.195	300.000	2407.75	-66.59	66.50	-115.18	40°14'12.071"N	104°49'38.588"W	2.00	
2517.00†	0.195	300.000	2507.73	-67.64	67.54	-116.99	40°14'12.081"N	104°49'38.611"W	2.00	
2526.74	0.000	179.954	2517.47	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	2.00	END DROP
2617.00†	0.000	179.954	2607.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
2717.00†	0.000	179.954	2707.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
2817.00†	0.000	179.954	2807.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
2917.00†	0.000	179.954	2907.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3017.00†	0.000	179.954	3007.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3117.00†	0.000	179.954	3107.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3217.00†	0.000	179.954	3207.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3317.00†	0.000	179.954	3307.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3417.00†	0.000	179.954	3407.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3517.00†	0.000	179.954	3507.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3617.00†	0.000	179.954	3607.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3717.00†	0.000	179.954	3707.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3815.27†	0.000	179.954	3806.00	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	PARKMAN

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3817.00†	0.000	179.954	3807.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
3917.00†	0.000	179.954	3907.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4017.00†	0.000	179.954	4007.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4117.00†	0.000	179.954	4107.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4217.00†	0.000	179.954	4207.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4259.27†	0.000	179.954	4250.00	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	SUSSEX
4317.00†	0.000	179.954	4307.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4417.00†	0.000	179.954	4407.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4517.00†	0.000	179.954	4507.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4617.00†	0.000	179.954	4607.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4717.00†	0.000	179.954	4707.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4817.00†	0.000	179.954	4807.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
4917.00†	0.000	179.954	4907.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5017.00†	0.000	179.954	5007.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5117.00†	0.000	179.954	5107.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5217.00†	0.000	179.954	5207.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5317.00†	0.000	179.954	5307.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5417.00†	0.000	179.954	5407.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5517.00†	0.000	179.954	5507.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5617.00†	0.000	179.954	5607.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5717.00†	0.000	179.954	5707.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5817.00†	0.000	179.954	5807.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
5917.00†	0.000	179.954	5907.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6017.00†	0.000	179.954	6007.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6117.00†	0.000	179.954	6107.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6217.00†	0.000	179.954	6207.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6317.00†	0.000	179.954	6307.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6417.00†	0.000	179.954	6407.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6517.00†	0.000	179.954	6507.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6617.00†	0.000	179.954	6607.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6646.32†	0.000	179.954	6637.05	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	4 1/2" LINER TOP
6717.00†	0.000	179.954	6707.73	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	
6746.32	0.000	179.954	6737.05	-67.64	67.55	-117.00	40°14'12.082"N	104°49'38.612"W	0.00	KOP, BUILD @ 10°/100
6817.00†	7.068	179.954	6807.55	-63.29	63.20	-117.00	40°14'12.038"N	104°49'38.612"W	10.00	
6917.00†	17.068	179.954	6905.21	-42.41	42.32	-116.98	40°14'11.832"N	104°49'38.611"W	10.00	
6980.76†	23.444	179.954	6965.00	-20.35	20.25	-116.96	40°14'11.614"N	104°49'38.611"W	10.00	SHARON SPRINGS
7017.00†	27.068	179.954	6997.77	-4.89	4.79	-116.95	40°14'11.461"N	104°49'38.611"W	10.00	
7044.56†	29.824	179.954	7022.00	8.24	-8.33	-116.94	40°14'11.332"N	104°49'38.611"W	10.00	NIOBRARA A
7101.61†	35.529	179.954	7070.00	39.03	-39.12	-116.92	40°14'11.027"N	104°49'38.611"W	10.00	NIOBRARA B
7117.00†	37.068	179.954	7082.40	48.14	-48.23	-116.91	40°14'10.937"N	104°49'38.610"W	10.00	
7213.28†	46.696	179.954	7154.00	112.34	-112.43	-116.86	40°14'10.303"N	104°49'38.610"W	10.00	NIOBRARA C
7217.00†	47.068	179.954	7156.54	115.06	-115.15	-116.85	40°14'10.276"N	104°49'38.610"W	10.00	
7317.00†	57.068	179.954	7217.94	193.83	-193.92	-116.79	40°14'09.498"N	104°49'38.609"W	10.00	
7417.00†	67.068	179.954	7264.72	282.07	-282.16	-116.72	40°14'08.626"N	104°49'38.608"W	10.00	
7469.71†	72.339	179.954	7283.00	331.49	-331.59	-116.68	40°14'08.137"N	104°49'38.607"W	10.00	FORT HAYS

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7517.00†	77.068	179.954	7295.47	377.09	-377.18	-116.65	40°14'07.687"N	104°49'38.607"W	10.00	
7570.55†	82.423	179.954	7305.00	429.77	-429.86	-116.60	40°14'07.166"N	104°49'38.606"W	10.00	CODELL
7617.00†	87.068	179.954	7309.25	476.01	-476.10	-116.57	40°14'06.709"N	104°49'38.606"W	10.00	
7647.27	90.095	179.954	7310.00	506.26	-506.35	-116.54	40°14'06.410"N	104°49'38.606"W	10.00	LANDING POINT
7717.00†	90.095	179.954	7309.89	575.99	-576.09	-116.49	40°14'05.721"N	104°49'38.605"W	0.00	
7817.00†	90.095	179.954	7309.72	675.99	-676.09	-116.41	40°14'04.733"N	104°49'38.604"W	0.00	
7917.00†	90.095	179.954	7309.56	775.99	-776.09	-116.33	40°14'03.745"N	104°49'38.603"W	0.00	
8017.00†	90.095	179.954	7309.39	875.99	-876.09	-116.25	40°14'02.757"N	104°49'38.602"W	0.00	
8117.00†	90.095	179.954	7309.23	975.99	-976.09	-116.17	40°14'01.768"N	104°49'38.601"W	0.00	
8217.00†	90.095	179.954	7309.06	1075.99	-1076.09	-116.09	40°14'00.780"N	104°49'38.600"W	0.00	
8317.00†	90.095	179.954	7308.90	1175.99	-1176.09	-116.01	40°13'59.792"N	104°49'38.599"W	0.00	
8417.00†	90.095	179.954	7308.73	1275.99	-1276.09	-115.93	40°13'58.804"N	104°49'38.598"W	0.00	
8517.00†	90.095	179.954	7308.57	1375.99	-1376.09	-115.85	40°13'57.816"N	104°49'38.597"W	0.00	
8617.00†	90.095	179.954	7308.40	1475.99	-1476.09	-115.77	40°13'56.827"N	104°49'38.596"W	0.00	
8717.00†	90.095	179.954	7308.23	1575.99	-1576.09	-115.69	40°13'55.839"N	104°49'38.595"W	0.00	
8817.00†	90.095	179.954	7308.07	1675.99	-1676.09	-115.61	40°13'54.851"N	104°49'38.594"W	0.00	
8917.00†	90.095	179.954	7307.90	1775.99	-1776.09	-115.53	40°13'53.863"N	104°49'38.593"W	0.00	
9017.00†	90.095	179.954	7307.74	1875.99	-1876.09	-115.45	40°13'52.875"N	104°49'38.592"W	0.00	
9117.00†	90.095	179.954	7307.57	1975.99	-1976.09	-115.37	40°13'51.886"N	104°49'38.590"W	0.00	
9217.00†	90.095	179.954	7307.41	2075.99	-2076.09	-115.29	40°13'50.898"N	104°49'38.589"W	0.00	
9317.00†	90.095	179.954	7307.24	2175.99	-2176.09	-115.21	40°13'49.910"N	104°49'38.588"W	0.00	
9417.00†	90.095	179.954	7307.08	2275.99	-2276.09	-115.13	40°13'48.922"N	104°49'38.587"W	0.00	
9517.00†	90.095	179.954	7306.91	2375.99	-2376.09	-115.05	40°13'47.934"N	104°49'38.586"W	0.00	
9617.00†	90.095	179.954	7306.75	2475.99	-2476.09	-114.97	40°13'46.946"N	104°49'38.585"W	0.00	
9717.00†	90.095	179.954	7306.58	2575.99	-2576.09	-114.89	40°13'45.957"N	104°49'38.584"W	0.00	
9817.00†	90.095	179.954	7306.42	2675.99	-2676.08	-114.81	40°13'44.969"N	104°49'38.583"W	0.00	
9917.00†	90.095	179.954	7306.25	2775.99	-2776.08	-114.73	40°13'43.981"N	104°49'38.582"W	0.00	
10017.00†	90.095	179.954	7306.09	2875.99	-2876.08	-114.65	40°13'42.993"N	104°49'38.581"W	0.00	
10117.00†	90.095	179.954	7305.92	2975.99	-2976.08	-114.57	40°13'42.005"N	104°49'38.580"W	0.00	
10217.00†	90.095	179.954	7305.76	3075.99	-3076.08	-114.49	40°13'41.016"N	104°49'38.579"W	0.00	
10317.00†	90.095	179.954	7305.59	3175.99	-3176.08	-114.41	40°13'40.028"N	104°49'38.578"W	0.00	
10417.00†	90.095	179.954	7305.43	3275.99	-3276.08	-114.33	40°13'39.040"N	104°49'38.577"W	0.00	
10517.00†	90.095	179.954	7305.26	3375.99	-3376.08	-114.25	40°13'38.052"N	104°49'38.576"W	0.00	
10617.00†	90.095	179.954	7305.10	3475.99	-3476.08	-114.17	40°13'37.064"N	104°49'38.575"W	0.00	
10717.00†	90.095	179.954	7304.93	3575.99	-3576.08	-114.09	40°13'36.075"N	104°49'38.574"W	0.00	
10817.00†	90.095	179.954	7304.77	3675.99	-3676.08	-114.01	40°13'35.087"N	104°49'38.573"W	0.00	
10917.00†	90.095	179.954	7304.60	3775.99	-3776.08	-113.93	40°13'34.099"N	104°49'38.572"W	0.00	
11017.00†	90.095	179.954	7304.43	3875.99	-3876.08	-113.85	40°13'33.111"N	104°49'38.571"W	0.00	
11117.00†	90.095	179.954	7304.27	3975.99	-3976.08	-113.77	40°13'32.123"N	104°49'38.570"W	0.00	
11217.00†	90.095	179.954	7304.10	4075.99	-4076.08	-113.69	40°13'31.134"N	104°49'38.569"W	0.00	
11317.00†	90.095	179.954	7303.94	4175.99	-4176.08	-113.61	40°13'30.146"N	104°49'38.568"W	0.00	
11417.00†	90.095	179.954	7303.77	4275.99	-4276.08	-113.53	40°13'29.158"N	104°49'38.567"W	0.00	
11517.00†	90.095	179.954	7303.61	4375.99	-4376.08	-113.45	40°13'28.170"N	104°49'38.566"W	0.00	
11617.00†	90.095	179.954	7303.44	4475.99	-4476.08	-113.37	40°13'27.182"N	104°49'38.565"W	0.00	
11717.00†	90.095	179.954	7303.28	4575.99	-4576.08	-113.29	40°13'26.193"N	104°49'38.564"W	0.00	



Planned Wellpath Report

HENRICKSON 13C-18HZ (PERMIT REV-A) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11817.00†	90.095	179.954	7303.11	4675.99	-4676.08	-113.21	40°13'25.205"N	104°49'38.563"W	0.00	
11917.00†	90.095	179.954	7302.95	4775.99	-4776.08	-113.13	40°13'24.217"N	104°49'38.561"W	0.00	
12017.00†	90.095	179.954	7302.78	4875.99	-4876.08	-113.05	40°13'23.229"N	104°49'38.560"W	0.00	
12117.00†	90.095	179.954	7302.62	4975.99	-4976.08	-112.97	40°13'22.241"N	104°49'38.559"W	0.00	
12217.00†	90.095	179.954	7302.45	5075.99	-5076.08	-112.89	40°13'21.253"N	104°49'38.558"W	0.00	
12317.00†	90.095	179.954	7302.29	5175.99	-5176.08	-112.81	40°13'20.264"N	104°49'38.557"W	0.00	
12417.00†	90.095	179.954	7302.12	5275.99	-5276.08	-112.73	40°13'19.276"N	104°49'38.556"W	0.00	
12517.00†	90.095	179.954	7301.96	5375.99	-5376.08	-112.65	40°13'18.288"N	104°49'38.555"W	0.00	
12617.00†	90.095	179.954	7301.79	5475.99	-5476.08	-112.57	40°13'17.300"N	104°49'38.554"W	0.00	
12717.00†	90.095	179.954	7301.63	5575.99	-5576.08	-112.49	40°13'16.312"N	104°49'38.553"W	0.00	
12817.00†	90.095	179.954	7301.46	5675.99	-5676.08	-112.41	40°13'15.323"N	104°49'38.552"W	0.00	
12917.00†	90.095	179.954	7301.30	5775.99	-5776.08	-112.33	40°13'14.335"N	104°49'38.551"W	0.00	
13017.00†	90.095	179.954	7301.13	5875.99	-5876.08	-112.25	40°13'13.347"N	104°49'38.550"W	0.00	
13117.00†	90.095	179.954	7300.97	5975.99	-5976.08	-112.17	40°13'12.359"N	104°49'38.549"W	0.00	
13217.00†	90.095	179.954	7300.80	6075.99	-6076.08	-112.09	40°13'11.371"N	104°49'38.548"W	0.00	
13317.00†	90.095	179.954	7300.63	6175.99	-6176.08	-112.01	40°13'10.382"N	104°49'38.547"W	0.00	
13417.00†	90.095	179.954	7300.47	6275.99	-6276.08	-111.93	40°13'09.394"N	104°49'38.546"W	0.00	
13517.00†	90.095	179.954	7300.30	6375.99	-6376.08	-111.85	40°13'08.406"N	104°49'38.545"W	0.00	
13617.00†	90.095	179.954	7300.14	6475.99	-6476.08	-111.77	40°13'07.418"N	104°49'38.544"W	0.00	
13701.18	90.095	179.954	7300.00 ¹	6560.16	-6560.26	-111.71	40°13'06.586"N	104°49'38.543"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: HENRICKSON 13C-18HZ PWB Ref Wellpath: HENRICKSON 13C-18HZ (PERMIT REV-A) 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	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	17.00	1000.00	983.00	17.00	1000.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1000.00	7674.27	6674.27	1000.00	7309.96	0.00	0.00	-533.36	-116.52
7in Casing Intermediate	17.00	7674.27	7657.27	17.00	7309.96	0.00	0.00	-533.36	-116.52
6.125in Open Hole	7674.27	13701.18	6026.91	7309.96	7300.00	-533.36	-116.52	-6560.26	-111.71
4.5in Open Hole	17.00	13701.18	13684.18	17.00	7300.00	0.00	0.00	-6560.26	-111.71



Planned Wellpath Report

HENRICKSON 13C-18HZ (PERMIT REV-A) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.07-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.07-T3N-R66W SECTION LINES		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.18-T3N-R66W HARD LINES (460' SET BACKS)		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
SEC.18-T3N-R66W SECTION LINES		4810.00	30.28	0.02	3187895.01	1329743.58	40°14'11.713"N	104°49'37.103"W	polygon
1) HENRICKSON 13C-18HZ BHL ON PLAT (460' FSL & 700' FWL, SEC.18) REV-1	13701.18	7300.00	-6560.26	-111.71	3187833.31	1323152.68	40°13'06.586"N	104°49'38.543"W	point

SURVEY PROGRAM - Ref Wellbore: HENRICKSON 13C-18HZ PWB Ref Wellpath: HENRICKSON 13C-18HZ (PERMIT REV-A) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	7674.27	NaviTrak (MagCorr)		HENRICKSON 13C-18HZ PWB
7674.27	13701.18	OnTrak (MagCorr)		HENRICKSON 13C-18HZ PWB



Planned Wellpath Report

HENRICKSON 13C-18HZ (PERMIT REV-A) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 HENRICKSON 13C-18HZ (1736' FSL & 814' FWL, SEC.07)
Area	COLORADO	Well	HENRICKSON 13C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	HENRICKSON 13C-18HZ PWB
Facility	SEC.07-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
516.00	0.000	300.000	516.00	FOX HILLS BASE
3815.27	0.000	179.954	3806.00	PARKMAN
4259.27	0.000	179.954	4250.00	SUSSEX
6646.32	0.000	179.954	6637.05	4 1/2" LINER TOP
6980.76	23.444	179.954	6965.00	SHARON SPRINGS
7044.56	29.824	179.954	7022.00	NIOBRARA A
7101.61	35.529	179.954	7070.00	NIOBRARA B
7213.28	46.696	179.954	7154.00	NIOBRARA C
7469.71	72.339	179.954	7283.00	FORT HAYS
7570.55	82.423	179.954	7305.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	300.000	17.00	TIE-ON
1250.00	0.000	300.000	1250.00	BEGIN NUDGE
1750.00	10.000	300.000	1747.47	END NUDGE
2026.74	10.000	300.000	2020.00	BEGIN DROP
2526.74	0.000	179.954	2517.47	END DROP
6746.32	0.000	179.954	6737.05	KOP. BUILD @ 10°/100
7647.27	90.095	179.954	7310.00	LANDING POINT
13701.18	90.095	179.954	7300.00	TOTAL DEPTH