

Petro Operating Company

Location Weld County, CO **Slot** BEF West 7
Field Wattenberg **Well** BEF West 7
Installation Brighton East Farm Pad **Wellbore** BEF West 7 (PWB)

Created by sean.dollinger
 Date plotted 21-Jul-2020
 Plot reference is BEF West 7 (PWB).
 Ref wellpath is BEF West 7 (PWP#1).
 Coordinates are in Feet reference BEF West 7.
 True Vertical Depths are reference Rig Datum.
 Measured Depths are reference Rig Datum.
 Rig Datum: Planned Datum #1
 Rig Datum to Mean Sea Level: 5075.00 ft.
 Plot North is aligned to GRID North.

Scale 1 cm = 400 ft

East (Feet) ->

-5600 -4800 -4000 -3200 -2400 -1600 -800 -0 800 1600

Scale 1 cm = 400 ft

North (Feet) ->

800 0 -800 -1600 -2400

Tie on - 0.00 Inc, 27.00 MD, 27.00 TVD, -0.00 VS



Oct-6-2017
 EMM-2015 Dip: 66.39 deg Field: 52108.9 nT
 Lat: N39 59 33.9000 Long: W104 44 4.8840 Elev: 5049.00 ft
 Magnetic North is 8.22 deg East of True North
 GRID North is 0.49 deg East of True North
 To correct azimuth from True to GRID subtract 0.49 deg
 To correct azimuth from Magnetic to GRID add 7.72 deg

3DS Kick off Point - 0.00 Inc, 1527.00 MD, 1527.00 TVD, -0.00 VS

End of Build - 15.15 Inc, 2284.67 MD, 2275.87 TVD, 8.54 VS

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	27.00	0.00	0.00	27.00	S 0.00	W 0.00		-0.00
KOP	1527.00	0.00	165.93	1527.00	S 0.00	W 0.00	0.00	-0.00
End of Build	2284.67	15.15	165.93	2275.87	S 96.62	E 24.21	2.00	8.54
End of Hold	7305.40	15.15	165.93	7122.02	S 1369.71	E 343.19	0.00	121.06
Target BEF West 7 - LP	8084.63	90.00	269.47	7612.00	S 1503.12	W 132.17	12.00	613.96
T.D. & Target BEF...BHL	12438.82	90.00	269.47	7612.00	S 1543.34	W 4486.17	0.00	4744.22

End of Hold - 15.15 Inc, 7305.40 MD, 7122.02 TVD, 121.06 VS

BEF West 7 - LP

S/C Kick off Point - 90.00 Inc, 8084.63 MD, 7612.00 TVD, 613.96 VS

T.D. & End of Hold - 7612.00 TVD, 1543.34 S 4486.17 W

BEF West 7 - BHL

BEF West 7 (PWB)

Scale 1 cm = 200 ft

True Vertical Depth (Feet)

-400 0 400 800 1200 1600 2000 2400 2800 3200 3600 4000 4400 4800 5200 5600 6000 6400 6800 7200 7600 8000

-400 -0 400 800 1200 1600 2000 2400 2800 3200 3600 4000 4400 4800 5200

Scale 1 cm = 200 ft

Vertical Section (Feet) ->

Azimuth 251.02 with reference 0.00 N, 0.00 E from BEF West 7

SYSDRILL
Well Design Combined Report
Wellbore: BEF West 7 (PWB)



Wellhead Details

Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
BEF West 7	39.99476240	-104.73461090	1241864.3764	3214440.3101	733.25N	15.83E	0.00

Declination

Date	Source	Time
Jan-28-2019	EMM-2017	08:45
Jan-28-2019	EMM-2017	09:44
May-20-2019	EMM-2017	09:01
May-20-2019	EMM-2017	09:28
May-20-2019	EMM-2017	09:30
May-20-2019	EMM-2017	09:33
May-20-2019	EMM-2017	09:35
Oct-6-2017	EMM-2015	14:35
May-20-2019	EMM-2017	09:36
May-20-2019	EMM-2017	09:36
May-20-2019	EMM-2017	09:38
May-20-2019	EMM-2017	09:38

Installation Details

Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Brighton East Farm Pad	39.99275000	-104.73469000	1241131.1481	3214424.4758	NAD83 Colorado State Planes, North Zone, US Foot	Grid

Summary Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
27.00	0.00	0.00	27.00	-5048.00	0.00N	0.00E		0.00
1527.00	0.00	165.93	1527.00	-3548.00	0.00N	0.00E	==>	0.00
2284.67	15.15	165.93	2275.87	-2799.13	96.62S	24.21E	2.00	8.54
7305.40	15.15	165.93	7122.02	2047.02	1369.71S	343.19E	==>	121.06
8084.63	90.00	269.47	7612.00	2537.00	1503.12S	132.17W	12.00	613.96
12438.82	90.00	269.47	7612.00	2537.00	1543.34S	4486.17W	==>	4744.22

Interpolated Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
0.00	0.00	0.00	0.00	0.00N	0.00E		0.00	39.99476240	-104.73461090
27.00	0.00	0.00	27.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1000.00	0.00	0.00	1000.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1100.00	0.00	0.00	1100.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1200.00	0.00	0.00	1200.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1300.00	0.00	0.00	1300.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1400.00	0.00	0.00	1400.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1500.00	0.00	0.00	1500.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1527.00	0.00	165.93	1527.00	0.00N	0.00E	==>	0.00	39.99476240	-104.73461090
1627.00	2.00	165.93	1626.98	1.69S	0.42E	2.00	0.15	39.99475774	-104.73460944
1727.00	4.00	165.93	1726.84	6.77S	1.70E	2.00	0.60	39.99474378	-104.73460506
1827.00	6.00	165.93	1826.45	15.22S	3.81E	2.00	1.35	39.99472052	-104.73459776
1927.00	8.00	165.93	1925.70	27.04S	6.78E	2.00	2.39	39.99468800	-104.73458755
2027.00	10.00	165.93	2024.47	42.22S	10.58E	2.00	3.73	39.99464626	-104.73457445

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5075.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 251.02 degrees
Bottom hole distance is 4744.22 Feet on azimuth 251.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-Jul-2020

SYSDRILL
Well Design Combined Report
Wellbore: BEF West 7 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
2127.00	12.00	165.93	2122.62	60.73S	15.22E	2.00	5.37	39.99459535	-104.73455847
2227.00	14.00	165.93	2220.06	82.54S	20.68E	2.00	7.30	39.99453533	-104.73453963
2284.67	15.15	165.93	2275.87	96.62S	24.21E	2.00	8.54	39.99449659	-104.73452747
2327.00	15.15	165.93	2316.73	107.36S	26.90E	==>	9.49	39.99446707	-104.73451821
2427.00	15.15	165.93	2413.25	132.71S	33.25E	==>	11.73	39.99439731	-104.73449631
2527.00	15.15	165.93	2509.77	158.07S	39.61E	==>	13.97	39.99432756	-104.73447442
2627.00	15.15	165.93	2606.29	183.43S	45.96E	==>	16.21	39.99425781	-104.73445253
2727.00	15.15	165.93	2702.82	208.78S	52.31E	==>	18.45	39.99418805	-104.73443064
2827.00	15.15	165.93	2799.34	234.14S	58.67E	==>	20.69	39.99411830	-104.73440874
2927.00	15.15	165.93	2895.86	259.50S	65.02E	==>	22.94	39.99404854	-104.73438685
3027.00	15.15	165.93	2992.39	284.85S	71.37E	==>	25.18	39.99397879	-104.73436496
3127.00	15.15	165.93	3088.91	310.21S	77.72E	==>	27.42	39.99390903	-104.73434306
3227.00	15.15	165.93	3185.43	335.57S	84.08E	==>	29.66	39.99383928	-104.73432117
3327.00	15.15	165.93	3281.96	360.92S	90.43E	==>	31.90	39.99376952	-104.73429928
3427.00	15.15	165.93	3378.48	386.28S	96.78E	==>	34.14	39.99369977	-104.73427739
3527.00	15.15	165.93	3475.00	411.64S	103.14E	==>	36.38	39.99363002	-104.73425549
3627.00	15.15	165.93	3571.52	436.99S	109.49E	==>	38.62	39.99356026	-104.73423360
3727.00	15.15	165.93	3668.05	462.35S	115.84E	==>	40.86	39.99349051	-104.73421171
3827.00	15.15	165.93	3764.57	487.71S	122.20E	==>	43.11	39.99342075	-104.73418982
3927.00	15.15	165.93	3861.09	513.06S	128.55E	==>	45.35	39.99335100	-104.73416793
4027.00	15.15	165.93	3957.62	538.42S	134.90E	==>	47.59	39.99328124	-104.73414603
4127.00	15.15	165.93	4054.14	563.78S	141.26E	==>	49.83	39.99321149	-104.73412414
4227.00	15.15	165.93	4150.66	589.13S	147.61E	==>	52.07	39.99314173	-104.73410225
4327.00	15.15	165.93	4247.18	614.49S	153.96E	==>	54.31	39.99307198	-104.73408036
4427.00	15.15	165.93	4343.71	639.85S	160.32E	==>	56.55	39.99300223	-104.73405846
4527.00	15.15	165.93	4440.23	665.20S	166.67E	==>	58.79	39.99293247	-104.73403657
4627.00	15.15	165.93	4536.75	690.56S	173.02E	==>	61.03	39.99286272	-104.73401468
4727.00	15.15	165.93	4633.28	715.92S	179.38E	==>	63.27	39.99279296	-104.73399279
4827.00	15.15	165.93	4729.80	741.27S	185.73E	==>	65.52	39.99272321	-104.73397090
4927.00	15.15	165.93	4826.32	766.63S	192.08E	==>	67.76	39.99265345	-104.73394900
5027.00	15.15	165.93	4922.85	791.99S	198.44E	==>	70.00	39.99258370	-104.73392711
5127.00	15.15	165.93	5019.37	817.34S	204.79E	==>	72.24	39.99251394	-104.73390522
5227.00	15.15	165.93	5115.89	842.70S	211.14E	==>	74.48	39.99244419	-104.73388333
5327.00	15.15	165.93	5212.41	868.06S	217.50E	==>	76.72	39.99237444	-104.73386144
5427.00	15.15	165.93	5308.94	893.41S	223.85E	==>	78.96	39.99230468	-104.73383955
5527.00	15.15	165.93	5405.46	918.77S	230.20E	==>	81.20	39.99223493	-104.73381765
5627.00	15.15	165.93	5501.98	944.13S	236.56E	==>	83.44	39.99216517	-104.73379576
5727.00	15.15	165.93	5598.51	969.48S	242.91E	==>	85.69	39.99209542	-104.73377387
5827.00	15.15	165.93	5695.03	994.84S	249.26E	==>	87.93	39.99202566	-104.73375198
5927.00	15.15	165.93	5791.55	1020.20S	255.62E	==>	90.17	39.99195591	-104.73373009
6027.00	15.15	165.93	5888.07	1045.55S	261.97E	==>	92.41	39.99188615	-104.73370820
6127.00	15.15	165.93	5984.60	1070.91S	268.32E	==>	94.65	39.99181640	-104.73368631
6227.00	15.15	165.93	6081.12	1096.27S	274.68E	==>	96.89	39.99174665	-104.73366441
6327.00	15.15	165.93	6177.64	1121.62S	281.03E	==>	99.13	39.99167689	-104.73364252
6427.00	15.15	165.93	6274.17	1146.98S	287.38E	==>	101.37	39.99160714	-104.73362063
6527.00	15.15	165.93	6370.69	1172.34S	293.73E	==>	103.61	39.99153738	-104.73359874
6627.00	15.15	165.93	6467.21	1197.69S	300.09E	==>	105.86	39.99146763	-104.73357685
6727.00	15.15	165.93	6563.73	1223.05S	306.44E	==>	108.10	39.99139787	-104.73355496
6827.00	15.15	165.93	6660.26	1248.41S	312.79E	==>	110.34	39.99132812	-104.73353307
6927.00	15.15	165.93	6756.78	1273.76S	319.15E	==>	112.58	39.99125836	-104.73351118
7027.00	15.15	165.93	6853.30	1299.12S	325.50E	==>	114.82	39.99118861	-104.73348929
7127.00	15.15	165.93	6949.83	1324.48S	331.85E	==>	117.06	39.99111885	-104.73346740
7227.00	15.15	165.93	7046.35	1349.83S	338.21E	==>	119.30	39.99104910	-104.73344550
7305.40	15.15	165.93	7122.02	1369.71S	343.19E	==>	121.06	39.99099441	-104.73342834
7327.00	14.78	175.88	7142.89	1375.20S	344.07E	12.00	122.01	39.99097933	-104.73342536
7427.00	18.38	217.05	7239.04	1400.60S	335.46E	12.00	138.41	39.99090982	-104.73345687
7527.00	27.18	238.62	7331.31	1425.16S	306.36E	12.00	173.92	39.99084308	-104.73356148
7627.00	37.69	249.55	7415.67	1447.82S	258.05E	12.00	226.98	39.99078203	-104.73373460

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5075.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 251.02 degrees
Bottom hole distance is 4744.22 Feet on azimuth 251.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-Jul-2020

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Well Design Combined Report
Wellbore: BEF West 7 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
7727.00	48.82	256.15	7488.42	1467.58S	192.63E	12.00	295.27	39.99072934	-104.73396866
7827.00	60.21	260.80	7546.40	1483.58S	112.97E	12.00	375.80	39.99068730	-104.73425345
7927.00	71.73	264.48	7587.07	1495.13S	22.54E	12.00	465.06	39.99065776	-104.73457650
8027.00	83.31	267.70	7608.64	1501.70S	74.69W	12.00	559.15	39.99064201	-104.73492371
8084.63	90.00	269.47	7612.00	1503.12S	132.17W	12.00	613.96	39.99063948	-104.73512888
8127.00	90.00	269.47	7612.00	1503.51S	174.54W	==>	654.15	39.99063941	-104.73528009
8227.00	90.00	269.47	7612.00	1504.44S	274.53W	==>	749.01	39.99063924	-104.73563698
8327.00	90.00	269.47	7612.00	1505.36S	374.53W	==>	843.87	39.99063907	-104.73599387
8427.00	90.00	269.47	7612.00	1506.28S	474.53W	==>	938.72	39.99063890	-104.73635075
8527.00	90.00	269.47	7612.00	1507.21S	574.52W	==>	1033.58	39.99063873	-104.73670764
8627.00	90.00	269.47	7612.00	1508.13S	674.52W	==>	1128.44	39.99063855	-104.73706452
8727.00	90.00	269.47	7612.00	1509.05S	774.51W	==>	1223.30	39.99063838	-104.73742141
8827.00	90.00	269.47	7612.00	1509.98S	874.51W	==>	1318.15	39.99063820	-104.73777829
8927.00	90.00	269.47	7612.00	1510.90S	974.50W	==>	1413.01	39.99063803	-104.73813518
9027.00	90.00	269.47	7612.00	1511.82S	1074.50W	==>	1507.87	39.99063785	-104.73849206
9127.00	90.00	269.47	7612.00	1512.75S	1174.50W	==>	1602.72	39.99063767	-104.73884895
9227.00	90.00	269.47	7612.00	1513.67S	1274.49W	==>	1697.58	39.99063749	-104.73920583
9327.00	90.00	269.47	7612.00	1514.60S	1374.49W	==>	1792.44	39.99063731	-104.73956272
9427.00	90.00	269.47	7612.00	1515.52S	1474.48W	==>	1887.30	39.99063713	-104.73991961
9527.00	90.00	269.47	7612.00	1516.44S	1574.48W	==>	1982.15	39.99063694	-104.74027649
9627.00	90.00	269.47	7612.00	1517.37S	1674.47W	==>	2077.01	39.99063676	-104.74063338
9727.00	90.00	269.47	7612.00	1518.29S	1774.47W	==>	2171.87	39.99063657	-104.74099026
9827.00	90.00	269.47	7612.00	1519.21S	1874.47W	==>	2266.72	39.99063639	-104.74134715
9927.00	90.00	269.47	7612.00	1520.14S	1974.46W	==>	2361.58	39.99063620	-104.74170403
10027.00	90.00	269.47	7612.00	1521.06S	2074.46W	==>	2456.44	39.99063601	-104.74206092
10127.00	90.00	269.47	7612.00	1521.99S	2174.45W	==>	2551.30	39.99063582	-104.74241780
10227.00	90.00	269.47	7612.00	1522.91S	2274.45W	==>	2646.15	39.99063563	-104.74277469
10327.00	90.00	269.47	7612.00	1523.83S	2374.45W	==>	2741.01	39.99063544	-104.74313157
10427.00	90.00	269.47	7612.00	1524.76S	2474.44W	==>	2835.87	39.99063524	-104.74348846
10527.00	90.00	269.47	7612.00	1525.68S	2574.44W	==>	2930.73	39.99063505	-104.74384534
10627.00	90.00	269.47	7612.00	1526.60S	2674.43W	==>	3025.58	39.99063485	-104.74420223
10727.00	90.00	269.47	7612.00	1527.53S	2774.43W	==>	3120.44	39.99063466	-104.74455912
10827.00	90.00	269.47	7612.00	1528.45S	2874.42W	==>	3215.30	39.99063446	-104.74491600
10927.00	90.00	269.47	7612.00	1529.38S	2974.42W	==>	3310.15	39.99063426	-104.74527289
11027.00	90.00	269.47	7612.00	1530.30S	3074.42W	==>	3405.01	39.99063406	-104.74562977
11127.00	90.00	269.47	7612.00	1531.22S	3174.41W	==>	3499.87	39.99063386	-104.74598666
11227.00	90.00	269.47	7612.00	1532.15S	3274.41W	==>	3594.73	39.99063366	-104.74634354
11327.00	90.00	269.47	7612.00	1533.07S	3374.40W	==>	3689.58	39.99063346	-104.74670043
11427.00	90.00	269.47	7612.00	1533.99S	3474.40W	==>	3784.44	39.99063325	-104.74705731
11527.00	90.00	269.47	7612.00	1534.92S	3574.39W	==>	3879.30	39.99063305	-104.74741420
11627.00	90.00	269.47	7612.00	1535.84S	3674.39W	==>	3974.15	39.99063284	-104.74777108
11727.00	90.00	269.47	7612.00	1536.76S	3774.39W	==>	4069.01	39.99063263	-104.74812797
11827.00	90.00	269.47	7612.00	1537.69S	3874.38W	==>	4163.87	39.99063242	-104.74848485
11927.00	90.00	269.47	7612.00	1538.61S	3974.38W	==>	4258.73	39.99063221	-104.74884174
12027.00	90.00	269.47	7612.00	1539.54S	4074.37W	==>	4353.58	39.99063200	-104.74919863
12127.00	90.00	269.47	7612.00	1540.46S	4174.37W	==>	4448.44	39.99063179	-104.74955551
12227.00	90.00	269.47	7612.00	1541.38S	4274.36W	==>	4543.30	39.99063158	-104.74991240
12327.00	90.00	269.47	7612.00	1542.31S	4374.36W	==>	4638.15	39.99063136	-104.75026928
12427.00	90.00	269.47	7612.00	1543.23S	4474.36W	==>	4733.01	39.99063115	-104.75062617
12438.82	90.00	269.47	7612.00	1543.34S	4486.17W	==>	4744.22	39.99063112	-104.75066833

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 5075.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 251.02 degrees
Bottom hole distance is 4744.22 Feet on azimuth 251.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-Jul-2020



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