

Petro Operating Company

Location Weld County, CO Slot FLASCHENRIEM 3
Field Wattenberg Well W FLASCHENRIEM 3
Installation Flaschenriem Pad Wellbore W FLASCHENRIEM 3 (PWB)

N
GRID

Scale 1 cm = 500 ft

East (Feet) ->

-2000 -1000 0 1000 2000 3000 4000 5000 6000 7000 8000

Apr-20-2018
EMM-2015 [2000 0-2020 0] Dip: 66.69 deg Field: 52216.1 nT
Lat: N40 20 39.0325 Long: W104 59 29.5523 Elev: 5068.00 ft
Magnetic North is 8.49 deg East of True North
GRID North is 0.33 deg East of True North
To correct azimuth from True to GRID subtract 0.33 deg
To correct azimuth from Magnetic to GRID add 8.16 deg

Created by admin
Date plotted 14-May-2018

Plot reference is W FLASCHENRIEM 3 (PWB).
Ref wellpath is W FLASCHENRIEM 3 (PWP#1).
Coordinates are in Feet reference FLASCHENRIEM 3.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 5068.70 ft.
Plot North is aligned to GRID North.

FLASCHENRIEM 3-LP

FLASCHENRIEM 3-BHL

W FLASCHENRIEM 3 (PWB)

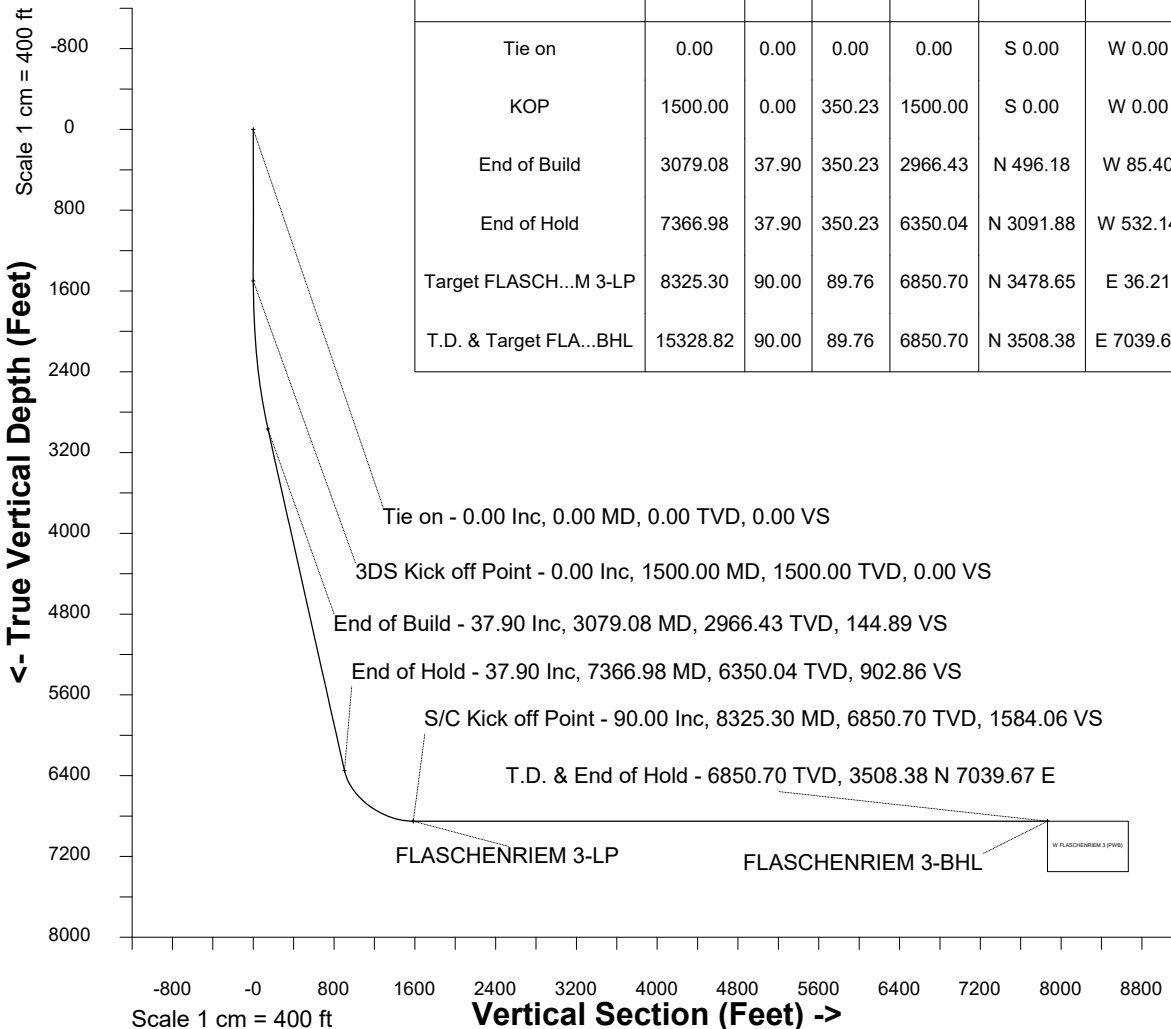
Surface 0.00 N 0.00 E

<- North (Feet)
Scale 1 cm = 500 ft

5000
4000
3000
2000
1000
0
-1000

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		0.00
KOP	1500.00	0.00	350.23	1500.00	S 0.00	W 0.00	0.00	0.00
End of Build	3079.08	37.90	350.23	2966.43	N 496.18	W 85.40	2.40	144.89
End of Hold	7366.98	37.90	350.23	6350.04	N 3091.88	W 532.14	0.00	902.86
Target FLASCH...M 3-LP	8325.30	90.00	89.76	6850.70	N 3478.65	E 36.21	10.00	1584.06
T.D. & Target FLA...BHL	15328.82	90.00	89.76	6850.70	N 3508.38	E 7039.67	0.00	7865.47



Azimuth 63.51 with reference 0.00 N, 0.00 E from FLASCHENRIEM 3



SYSDRILL
Well Design Combined Report
Wellbore: W FLASCHENRIEM 3 (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
FLASCHENRIEM 3	40.34405210	-104.99154010	1368585.1984	3141727.4387	45.02S	0.87E	0.00

Declination		
Date	Source	Time
Apr-20-2018	EMM-2015 [2000.0-2020.0]	11:01

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Flaschenriem Pad	40.34417570	-104.99154230	1368630.2207	3141726.5673	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.000	0.00	-5068.70	0.00N	0.00E		0.00
1500.00	0.00	350.230	1500.00	-3568.70	0.00N	0.00E	==>	0.00
3079.08	37.90	350.230	2966.43	-2102.27	496.18N	85.40W	2.40	144.89
7366.98	37.90	350.230	6350.04	1281.34	3091.88N	532.14W	==>	902.86
8325.30	90.00	89.760	6850.70	1782.00	3478.65N	36.21E	10.00	1584.06
15328.82	90.00	89.760	6850.70	1782.00	3508.38N	7039.67E	==>	7865.47

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	0.000	0.00	0.00N	0.00E		0.00	40.34405210	-104.99154010
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1100.00	0.00	0.000	1100.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1200.00	0.00	0.000	1200.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1300.00	0.00	0.000	1300.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1400.00	0.00	0.000	1400.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1500.00	0.00	350.230	1500.00	0.00N	0.00E	==>	0.00	40.34405210	-104.99154010
1600.00	2.40	350.230	1599.97	2.06N	0.36W	2.40	0.60	40.34405777	-104.99154133
1700.00	4.80	350.230	1699.77	8.25N	1.42W	2.40	2.41	40.34407477	-104.99154502
1800.00	7.20	350.230	1799.21	18.55N	3.19W	2.40	5.42	40.34410307	-104.99155117
1900.00	9.60	350.230	1898.13	32.95N	5.67W	2.40	9.62	40.34414263	-104.99155976
2000.00	12.00	350.230	1996.35	51.41N	8.85W	2.40	15.01	40.34419336	-104.99157079
2100.00	14.40	350.230	2093.70	73.92N	12.72W	2.40	21.58	40.34425519	-104.99158422
2200.00	16.80	350.230	2190.01	100.42N	17.28W	2.40	29.32	40.34432800	-104.99160003
2300.00	19.20	350.230	2285.11	130.87N	22.52W	2.40	38.21	40.34441167	-104.99161821
2400.00	21.60	350.230	2378.83	165.22N	28.44W	2.40	48.24	40.34450605	-104.99163871
2500.00	24.00	350.230	2471.01	203.40N	35.01W	2.40	59.40	40.34461097	-104.99166150
2600.00	26.40	350.230	2561.49	245.36N	42.23W	2.40	71.65	40.34472625	-104.99168654
2700.00	28.80	350.230	2650.10	291.02N	50.09W	2.40	84.98	40.34485170	-104.99171379
2800.00	31.20	350.230	2736.70	340.29N	58.57W	2.40	99.37	40.34498707	-104.99174320
2900.00	33.60	350.230	2821.13	393.09N	67.65W	2.40	114.79	40.34513215	-104.99177472
3000.00	36.00	350.230	2903.23	449.33N	77.33W	2.40	131.21	40.34528668	-104.99180829
3100.00	37.90	350.230	2982.94	508.84N	87.58W	==>	148.59	40.34545018	-104.99184381

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Vertical Section is from 0.00N 0.00E on azimuth 63.510 degrees
Bottom hole distance is 7865.47 Feet on azimuth 63.51 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 14-May-2018



SYSDRILL
Well Design Combined Report
Wellbore: W FLASCHENRIEM 3 (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)
3200.00	37.90	350.230	3061.85	569.38N	97.99W	==>	166.26	40.34561651	-104.99187994
3300.00	37.90	350.230	3140.76	629.91N	108.41W	==>	183.94	40.34578284	-104.99191607
3400.00	37.90	350.230	3219.67	690.45N	118.83W	==>	201.62	40.34594916	-104.99195220
3500.00	37.90	350.230	3298.58	750.98N	129.25W	==>	219.29	40.34611549	-104.99198833
3600.00	37.90	350.230	3377.49	811.52N	139.67W	==>	236.97	40.34628182	-104.99202447
3700.00	37.90	350.230	3456.40	872.05N	150.09W	==>	254.65	40.34644814	-104.99206060
3800.00	37.90	350.230	3535.31	932.59N	160.51W	==>	272.32	40.34661447	-104.99209673
3900.00	37.90	350.230	3614.22	993.12N	170.93W	==>	290.00	40.34678080	-104.99213287
4000.00	37.90	350.230	3693.13	1053.66N	181.34W	==>	307.68	40.34694712	-104.99216900
4100.00	37.90	350.230	3772.04	1114.20N	191.76W	==>	325.36	40.34711345	-104.99220513
4200.00	37.90	350.230	3850.96	1174.73N	202.18W	==>	343.03	40.34727978	-104.99224127
4300.00	37.90	350.230	3929.87	1235.27N	212.60W	==>	360.71	40.34744610	-104.99227740
4400.00	37.90	350.230	4008.78	1295.80N	223.02W	==>	378.39	40.34761243	-104.99231354
4500.00	37.90	350.230	4087.69	1356.34N	233.44W	==>	396.06	40.34777876	-104.99234967
4600.00	37.90	350.230	4166.60	1416.87N	243.86W	==>	413.74	40.34794508	-104.99238580
4700.00	37.90	350.230	4245.51	1477.41N	254.28W	==>	431.42	40.34811141	-104.99242194
4800.00	37.90	350.230	4324.42	1537.95N	264.69W	==>	449.09	40.34827774	-104.99245807
4900.00	37.90	350.230	4403.33	1598.48N	275.11W	==>	466.77	40.34844406	-104.99249421
5000.00	37.90	350.230	4482.24	1659.02N	285.53W	==>	484.45	40.34861039	-104.99253034
5100.00	37.90	350.230	4561.15	1719.55N	295.95W	==>	502.12	40.34877672	-104.99256648
5200.00	37.90	350.230	4640.06	1780.09N	306.37W	==>	519.80	40.34894304	-104.99260261
5300.00	37.90	350.230	4718.97	1840.62N	316.79W	==>	537.48	40.34910937	-104.99263875
5400.00	37.90	350.230	4797.88	1901.16N	327.21W	==>	555.15	40.34927569	-104.99267489
5500.00	37.90	350.230	4876.79	1961.69N	337.63W	==>	572.83	40.34944202	-104.99271102
5600.00	37.90	350.230	4955.70	2022.23N	348.04W	==>	590.51	40.34960835	-104.99274716
5700.00	37.90	350.230	5034.62	2082.77N	358.46W	==>	608.19	40.34977467	-104.99278329
5800.00	37.90	350.230	5113.53	2143.30N	368.88W	==>	625.86	40.34994100	-104.99281943
5900.00	37.90	350.230	5192.44	2203.84N	379.30W	==>	643.54	40.35010733	-104.99285557
6000.00	37.90	350.230	5271.35	2264.37N	389.72W	==>	661.22	40.35027365	-104.99289170
6100.00	37.90	350.230	5350.26	2324.91N	400.14W	==>	678.89	40.35043998	-104.99292784
6200.00	37.90	350.230	5429.17	2385.44N	410.56W	==>	696.57	40.35060631	-104.99296398
6300.00	37.90	350.230	5508.08	2445.98N	420.97W	==>	714.25	40.35077263	-104.99300012
6400.00	37.90	350.230	5586.99	2506.51N	431.39W	==>	731.92	40.35093896	-104.99303625
6500.00	37.90	350.230	5665.90	2567.05N	441.81W	==>	749.60	40.35110528	-104.99307239
6600.00	37.90	350.230	5744.81	2627.59N	452.23W	==>	767.28	40.35127161	-104.99310853
6700.00	37.90	350.230	5823.72	2688.12N	462.65W	==>	784.95	40.35143794	-104.99314467
6800.00	37.90	350.230	5902.63	2748.66N	473.07W	==>	802.63	40.35160426	-104.99318081
6900.00	37.90	350.230	5981.54	2809.19N	483.49W	==>	820.31	40.35177059	-104.99321695
7000.00	37.90	350.230	6060.45	2869.73N	493.91W	==>	837.99	40.35193691	-104.99325308
7100.00	37.90	350.230	6139.36	2930.26N	504.32W	==>	855.66	40.35210324	-104.99328922
7200.00	37.90	350.230	6218.28	2990.80N	514.74W	==>	873.34	40.35226957	-104.99332536
7300.00	37.90	350.230	6297.19	3051.33N	525.16W	==>	891.02	40.35243589	-104.99336150
7400.00	37.59	355.610	6376.16	3111.92N	534.63W	10.00	909.56	40.35260235	-104.99339424
7500.00	38.14	11.910	6455.31	3172.70N	530.59W	10.00	940.30	40.35276911	-104.99337848
7600.00	40.83	27.090	6532.66	3232.17N	509.27W	10.00	985.90	40.35293203	-104.99330079
7700.00	45.27	40.250	6605.86	3288.54N	471.34W	10.00	1044.99	40.35308614	-104.99316354
7800.00	50.98	51.290	6672.70	3340.07N	417.94W	10.00	1115.77	40.35322676	-104.99297090
7900.00	57.58	60.570	6731.14	3385.22N	350.70W	10.00	1196.09	40.35334963	-104.99272871
8000.00	64.75	68.530	6779.40	3422.60N	271.65W	10.00	1283.51	40.35345100	-104.99244434
8100.00	72.31	75.580	6816.01	3451.09N	183.21W	10.00	1375.38	40.35352780	-104.99212643
8200.00	80.09	82.050	6839.88	3469.81N	88.05W	10.00	1468.89	40.35357770	-104.99178464
8300.00	87.99	88.220	6850.26	3478.20N	10.92E	10.00	1561.22	40.35359917	-104.99142935
8400.00	90.00	89.760	6850.70	3478.97N	110.91E	==>	1651.05	40.35359969	-104.99107059
8500.00	90.00	89.760	6850.70	3479.39N	210.91E	==>	1740.74	40.35359928	-104.99071180
8600.00	90.00	89.760	6850.70	3479.82N	310.91E	==>	1830.43	40.35359887	-104.99035301
8700.00	90.00	89.760	6850.70	3480.24N	410.91E	==>	1920.12	40.35359846	-104.98999422
8800.00	90.00	89.760	6850.70	3480.66N	510.91E	==>	2009.81	40.35359804	-104.98963543
8900.00	90.00	89.760	6850.70	3481.09N	610.91E	==>	2099.50	40.35359763	-104.98927663

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Vertical Section is from 0.00N 0.00E on azimuth 63.510 degrees
Bottom hole distance is 7865.47 Feet on azimuth 63.51 degrees from Wellhead
Calculation method uses Minimum Curvature method
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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)
9000.00	90.00	89.760	6850.70	3481.51N	710.91E	==>	2189.19	40.35359721	-104.98891784
9100.00	90.00	89.760	6850.70	3481.94N	810.91E	==>	2278.88	40.35359679	-104.98855905
9200.00	90.00	89.760	6850.70	3482.36N	910.90E	==>	2368.57	40.35359638	-104.98820026
9300.00	90.00	89.760	6850.70	3482.79N	1010.90E	==>	2458.26	40.35359596	-104.98784147
9400.00	90.00	89.760	6850.70	3483.21N	1110.90E	==>	2547.95	40.35359554	-104.98748268
9500.00	90.00	89.760	6850.70	3483.64N	1210.90E	==>	2637.64	40.35359511	-104.98712389
9600.00	90.00	89.760	6850.70	3484.06N	1310.90E	==>	2727.33	40.35359469	-104.98676509
9700.00	90.00	89.760	6850.70	3484.49N	1410.90E	==>	2817.02	40.35359427	-104.98640630
9800.00	90.00	89.760	6850.70	3484.91N	1510.90E	==>	2906.71	40.35359384	-104.98604751
9900.00	90.00	89.760	6850.70	3485.33N	1610.90E	==>	2996.39	40.35359341	-104.98568872
10000.00	90.00	89.760	6850.70	3485.76N	1710.90E	==>	3086.08	40.35359299	-104.98532993
10100.00	90.00	89.760	6850.70	3486.18N	1810.90E	==>	3175.77	40.35359256	-104.98497114
10200.00	90.00	89.760	6850.70	3486.61N	1910.90E	==>	3265.46	40.35359213	-104.98461235
10300.00	90.00	89.760	6850.70	3487.03N	2010.89E	==>	3355.15	40.35359170	-104.98425356
10400.00	90.00	89.760	6850.70	3487.46N	2110.89E	==>	3444.84	40.35359127	-104.98389476
10500.00	90.00	89.760	6850.70	3487.88N	2210.89E	==>	3534.53	40.35359083	-104.98353597
10600.00	90.00	89.760	6850.70	3488.31N	2310.89E	==>	3624.22	40.35359040	-104.98317718
10700.00	90.00	89.760	6850.70	3488.73N	2410.89E	==>	3713.91	40.35358996	-104.98281839
10800.00	90.00	89.760	6850.70	3489.15N	2510.89E	==>	3803.60	40.35358953	-104.98245960
10900.00	90.00	89.760	6850.70	3489.58N	2610.89E	==>	3893.29	40.35358909	-104.98210081
11000.00	90.00	89.760	6850.70	3490.00N	2710.89E	==>	3982.98	40.35358865	-104.98174202
11100.00	90.00	89.760	6850.70	3490.43N	2810.89E	==>	4072.67	40.35358821	-104.98138323
11200.00	90.00	89.760	6850.70	3490.85N	2910.89E	==>	4162.36	40.35358777	-104.98102443
11300.00	90.00	89.760	6850.70	3491.28N	3010.89E	==>	4252.05	40.35358733	-104.98066564
11400.00	90.00	89.760	6850.70	3491.70N	3110.89E	==>	4341.74	40.35358689	-104.98030685
11500.00	90.00	89.760	6850.70	3492.13N	3210.88E	==>	4431.43	40.35358644	-104.97994806
11600.00	90.00	89.760	6850.70	3492.55N	3310.88E	==>	4521.12	40.35358600	-104.97958927
11700.00	90.00	89.760	6850.70	3492.97N	3410.88E	==>	4610.80	40.35358555	-104.97923048
11800.00	90.00	89.760	6850.70	3493.40N	3510.88E	==>	4700.49	40.35358510	-104.97887169
11900.00	90.00	89.760	6850.70	3493.82N	3610.88E	==>	4790.18	40.35358465	-104.97851290
12000.00	90.00	89.760	6850.70	3494.25N	3710.88E	==>	4879.87	40.35358420	-104.97815410
12100.00	90.00	89.760	6850.70	3494.67N	3810.88E	==>	4969.56	40.35358375	-104.97779531
12200.00	90.00	89.760	6850.70	3495.10N	3910.88E	==>	5059.25	40.35358330	-104.97743652
12300.00	90.00	89.760	6850.70	3495.52N	4010.88E	==>	5148.94	40.35358285	-104.97707773
12400.00	90.00	89.760	6850.70	3495.95N	4110.88E	==>	5238.63	40.35358239	-104.97671894
12500.00	90.00	89.760	6850.70	3496.37N	4210.88E	==>	5328.32	40.35358194	-104.97636015
12600.00	90.00	89.760	6850.70	3496.79N	4310.87E	==>	5418.01	40.35358148	-104.97600136
12700.00	90.00	89.760	6850.70	3497.22N	4410.87E	==>	5507.70	40.35358102	-104.97564257
12800.00	90.00	89.760	6850.70	3497.64N	4510.87E	==>	5597.39	40.35358057	-104.97528377
12900.00	90.00	89.760	6850.70	3498.07N	4610.87E	==>	5687.08	40.35358011	-104.97492498
13000.00	90.00	89.760	6850.70	3498.49N	4710.87E	==>	5776.77	40.35357965	-104.97456619
13100.00	90.00	89.760	6850.70	3498.92N	4810.87E	==>	5866.46	40.35357918	-104.97420740
13200.00	90.00	89.760	6850.70	3499.34N	4910.87E	==>	5956.15	40.35357872	-104.97384861
13300.00	90.00	89.760	6850.70	3499.77N	5010.87E	==>	6045.84	40.35357826	-104.97348982
13400.00	90.00	89.760	6850.70	3500.19N	5110.87E	==>	6135.52	40.35357779	-104.97313103
13500.00	90.00	89.760	6850.70	3500.61N	5210.87E	==>	6225.21	40.35357732	-104.97277224
13600.00	90.00	89.760	6850.70	3501.04N	5310.87E	==>	6314.90	40.35357686	-104.97241345
13700.00	90.00	89.760	6850.70	3501.46N	5410.86E	==>	6404.59	40.35357639	-104.97205465
13800.00	90.00	89.760	6850.70	3501.89N	5510.86E	==>	6494.28	40.35357592	-104.97169586
13900.00	90.00	89.760	6850.70	3502.31N	5610.86E	==>	6583.97	40.35357545	-104.97133707
14000.00	90.00	89.760	6850.70	3502.74N	5710.86E	==>	6673.66	40.35357498	-104.97097828
14100.00	90.00	89.760	6850.70	3503.16N	5810.86E	==>	6763.35	40.35357450	-104.97061949
14200.00	90.00	89.760	6850.70	3503.59N	5910.86E	==>	6853.04	40.35357403	-104.97026070
14300.00	90.00	89.760	6850.70	3504.01N	6010.86E	==>	6942.73	40.35357355	-104.96990191
14400.00	90.00	89.760	6850.70	3504.43N	6110.86E	==>	7032.42	40.35357308	-104.96954312
14500.00	90.00	89.760	6850.70	3504.86N	6210.86E	==>	7122.11	40.35357260	-104.96918433
14600.00	90.00	89.760	6850.70	3505.28N	6310.86E	==>	7211.80	40.35357212	-104.96882553
14700.00	90.00	89.760	6850.70	3505.71N	6410.86E	==>	7301.49	40.35357164	-104.96846674
14800.00	90.00	89.760	6850.70	3506.13N	6510.85E	==>	7391.18	40.35357116	-104.96810795

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 5068.7ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 63.510 degrees
Bottom hole distance is 7865.47 Feet on azimuth 63.51 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by IPT
Date Printed: 14-May-2018



SYSDRILL
Well Design Combined Report
Wellbore: W FLASCHENRIEM 3 (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)
14900.00	90.00	89.760	6850.70	3506.56N	6610.85E	==>	7480.87	40.35357068	-104.96774916
15000.00	90.00	89.760	6850.70	3506.98N	6710.85E	==>	7570.56	40.35357020	-104.96739037
15100.00	90.00	89.760	6850.70	3507.41N	6810.85E	==>	7660.25	40.35356971	-104.96703158
15200.00	90.00	89.760	6850.70	3507.83N	6910.85E	==>	7749.93	40.35356923	-104.96667279
15300.00	90.00	89.760	6850.70	3508.25N	7010.85E	==>	7839.62	40.35356874	-104.96631400
15328.82	90.00	89.760	6850.70	3508.38N	7039.67E	==>	7865.47	40.35356860	-104.96621060

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 5068.7ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 63.510 degrees
Bottom hole distance is 7865.47 Feet on azimuth 63.51 degrees from Wellhead
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SYSDRILL
Well Design Combined Report
Wellbore: W FLASCHENRIEM 3 (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
FLASCHENRIEM 3-BHL	3508.38N	7039.67E	6850.70	40.35356860	-104.96621060	1372093.42	3148766.80
FLASCHENRIEM 3-LP	3478.65N	36.21E	6850.70	40.35360000	-104.99133860	1372063.70	3141763.65

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
645405	Planned	1500.00	1500.00	WdW Rate Gyro	Standard
645406	Planned	15328.82	6850.70	ISCWSA MWD	Rev 4 + SAG + FLT

Notes