

BAYSWATER E & P, LLC

Location	Weld County, CO	Slot	EAST AULT P-18-19HN
Field	WATTENBERG	Well	W EAST AULT P-18-19HN
Installation	East Ault Pad	Wellbore	W EAST AULT P-18-19HN (PWB)

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	25.00	0.00	0.00	25.00	S 0.00	W 0.00		0.00
KOP	1025.00	0.00	48.51	1025.00	S 0.00	W 0.00	0.00	0.00
End of Build	1331.24	6.12	48.51	1330.66	N 10.83	E 12.25	2.00	-10.16
End of Hold	6703.95	6.12	48.51	6672.69	N 390.63	E 441.63	0.00	-366.38
Target EAST A...N - EP	7644.61	90.03	179.79	7284.00	S 181.02	E 493.03	10.00	207.21
T.D. & Target EAS...BHL	17294.19	90.03	179.79	7279.00	S 9830.53	E 528.07	0.00	9844.71

East (Feet) ->

-800 0 800 1600
Scale 1 cm = 400 ft

Surface 0.00 N 0.00 E

EAST AULT P-18-19HN - EP

N
GRID

<- North(Feet)
Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)
Scale 1 cm = 400 ft

Tie on - 0.00 Inc, 25.00 MD, 25.00 TVD, 0.00 VS

3DS Kick off Point - 0.00 Inc, 1025.00 MD, 1025.00 TVD, 0.00 VS

End of Build - 6.12 Inc, 1331.24 MD, 1330.66 TVD, -10.16 VS

Created by admin
Date plotted 27-Mar-2018
Plot reference is W EAST AULT P-18-19HN (PWB).
Ref wellpath is W EAST AULT P-18-19HN (PWP#1).
Coordinates are in Feet reference EAST AULT P-18-19HN.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 4934.00 ft.
Plot North is aligned to GRID North.

Mar-12-2018
EMM-2015 [2000.0-2020.0] Dip: 66.93 deg Field: 52347.2 nT
Lat: N40 25 13.6848 Long: W104 40 16.8312 Elev: 4909.00 ft
Magnetic North is 8.05 deg East of True North
GRID North is 0.54 deg East of True North
To correct azimuth from True to GRID subtract 0.54 deg
To correct azimuth from Magnetic to GRID add 7.52 deg

EAST AULT P-18-19HN - BHL

End of Hold - 6.12 Inc, 6703.95 MD, 6672.69 TVD, -366.38 VS

EAST AULT P-18-19HN - EP

S/C Kick off Point - 90.03 Inc, 7644.61 MD, 7284.00 TVD, 207.21 VS

EAST AULT P-18-19HN - BHL

T.D. & End of Hold - 7279.00 TVD, 9830.53 S 528.07 E

Scale 1 cm = 400 ft

Vertical Section (Feet) ->

Azimuth 176.93 with reference 0.00 N, 0.00 E from EAST AULT P-18-19HN



SYSDRILL
Well Design Combined Report
Wellbore: W EAST AULT P-18-19HN (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
EAST AULT P-18-19HN	40.58167700	-104.70471800	1455736.7519	3220897.7233	58644.29N	9819.47W	0.00

Declination		
Date	Source	Time
Mar-12-2018	EMM-2015 [2000.0-2020.0]	20:03

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
East Ault Pad	40.42046800	-104.67134200	1397094.8569	3230716.7970	CO83-NF on NORTH AMERICAN DATUM 1983 datum	Grid

Summary Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Northing	Easting
25.00	0.00	0.000	25.00	0.00N	0.00E		0.00	1455736.75	3220897.72
1025.00	0.00	48.510	1025.00	0.00N	0.00E	==>	0.00	1455736.75	3220897.72
1331.24	6.12	48.510	1330.66	10.83N	12.25E	2.00	-10.16	1455747.59	3220909.97
6703.95	6.12	48.510	6672.69	390.63N	441.63E	==>	-366.38	1456127.37	3221339.34
7644.61	90.03	179.790	7284.00	181.02S	493.03E	10.00	207.21	1455555.74	3221390.73
17294.19	90.03	179.790	7279.00	9830.53S	528.07E	==>	9844.71	1445906.50	3221425.78

Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	Rig Datum
25.00	0.00	0.000	25.00	0.00N	0.00E	==>	0.00	Slot Datum
100.00	0.00	0.000	100.00	0.00N	0.00E	==>	0.00	
200.00	0.00	0.000	200.00	0.00N	0.00E	==>	0.00	
300.00	0.00	0.000	300.00	0.00N	0.00E	==>	0.00	
400.00	0.00	0.000	400.00	0.00N	0.00E	==>	0.00	
500.00	0.00	0.000	500.00	0.00N	0.00E	==>	0.00	
600.00	0.00	0.000	600.00	0.00N	0.00E	==>	0.00	
700.00	0.00	0.000	700.00	0.00N	0.00E	==>	0.00	
800.00	0.00	0.000	800.00	0.00N	0.00E	==>	0.00	
900.00	0.00	0.000	900.00	0.00N	0.00E	==>	0.00	
1000.00	0.00	0.000	1000.00	0.00N	0.00E	==>	0.00	
1100.00	1.50	48.510	1099.99	0.65N	0.74E	2.00	-0.61	
1200.00	3.50	48.510	1199.89	3.54N	4.00E	2.00	-3.32	
1300.00	5.50	48.510	1299.58	8.74N	9.88E	2.00	-8.20	
1400.00	6.12	48.510	1399.02	15.69N	17.74E	==>	-14.72	
1500.00	6.12	48.510	1498.45	22.76N	25.74E	==>	-21.35	
1600.00	6.12	48.510	1597.88	29.83N	33.73E	==>	-27.98	
1700.00	6.12	48.510	1697.31	36.90N	41.72E	==>	-34.61	
1800.00	6.12	48.510	1796.74	43.97N	49.71E	==>	-41.24	
1900.00	6.12	48.510	1896.17	51.04N	57.70E	==>	-47.87	
2000.00	6.12	48.510	1995.60	58.11N	65.70E	==>	-54.50	
2100.00	6.12	48.510	2095.03	65.18N	73.69E	==>	-61.13	
2200.00	6.12	48.510	2194.46	72.25N	81.68E	==>	-67.76	
2300.00	6.12	48.510	2293.89	79.32N	89.67E	==>	-74.39	
2400.00	6.12	48.510	2393.32	86.38N	97.66E	==>	-81.02	
2500.00	6.12	48.510	2492.75	93.45N	105.65E	==>	-87.65	
2600.00	6.12	48.510	2592.17	100.52N	113.65E	==>	-94.28	
2700.00	6.12	48.510	2691.60	107.59N	121.64E	==>	-100.91	
2800.00	6.12	48.510	2791.03	114.66N	129.63E	==>	-107.54	
2900.00	6.12	48.510	2890.46	121.73N	137.62E	==>	-114.17	
3000.00	6.12	48.510	2989.89	128.80N	145.61E	==>	-120.80	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4934.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 176.930 degrees
Bottom hole distance is 9844.71 Feet on azimuth 176.93 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
Date Printed: 27-Mar-2018



SYSDRILL
Well Design Combined Report
Wellbore: W EAST AULT P-18-19HN (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
3100.00	6.12	48.510	3089.32	135.87N	153.61E	==>	-127.43	
3200.00	6.12	48.510	3188.75	142.94N	161.60E	==>	-134.06	
3300.00	6.12	48.510	3288.18	150.00N	169.59E	==>	-140.69	
3400.00	6.12	48.510	3387.61	157.07N	177.58E	==>	-147.32	
3500.00	6.12	48.510	3487.04	164.14N	185.57E	==>	-153.95	
3600.00	6.12	48.510	3586.47	171.21N	193.57E	==>	-160.58	
3700.00	6.12	48.510	3685.90	178.28N	201.56E	==>	-167.21	
3800.00	6.12	48.510	3785.32	185.35N	209.55E	==>	-173.84	
3900.00	6.12	48.510	3884.75	192.42N	217.54E	==>	-180.47	
4000.00	6.12	48.510	3984.18	199.49N	225.53E	==>	-187.10	
4100.00	6.12	48.510	4083.61	206.56N	233.53E	==>	-193.73	
4200.00	6.12	48.510	4183.04	213.63N	241.52E	==>	-200.36	
4300.00	6.12	48.510	4282.47	220.69N	249.51E	==>	-206.99	
4400.00	6.12	48.510	4381.90	227.76N	257.50E	==>	-213.62	
4500.00	6.12	48.510	4481.33	234.83N	265.49E	==>	-220.25	
4600.00	6.12	48.510	4580.76	241.90N	273.48E	==>	-226.88	
4700.00	6.12	48.510	4680.19	248.97N	281.48E	==>	-233.51	
4800.00	6.12	48.510	4779.62	256.04N	289.47E	==>	-240.14	
4900.00	6.12	48.510	4879.05	263.11N	297.46E	==>	-246.77	
5000.00	6.12	48.510	4978.47	270.18N	305.45E	==>	-253.40	
5100.00	6.12	48.510	5077.90	277.25N	313.44E	==>	-260.03	
5200.00	6.12	48.510	5177.33	284.31N	321.44E	==>	-266.66	
5300.00	6.12	48.510	5276.76	291.38N	329.43E	==>	-273.29	
5400.00	6.12	48.510	5376.19	298.45N	337.42E	==>	-279.92	
5500.00	6.12	48.510	5475.62	305.52N	345.41E	==>	-286.55	
5600.00	6.12	48.510	5575.05	312.59N	353.40E	==>	-293.18	
5700.00	6.12	48.510	5674.48	319.66N	361.40E	==>	-299.81	
5800.00	6.12	48.510	5773.91	326.73N	369.39E	==>	-306.44	
5900.00	6.12	48.510	5873.34	333.80N	377.38E	==>	-313.07	
6000.00	6.12	48.510	5972.77	340.87N	385.37E	==>	-319.70	
6100.00	6.12	48.510	6072.20	347.94N	393.36E	==>	-326.33	
6200.00	6.12	48.510	6171.62	355.00N	401.36E	==>	-332.96	
6300.00	6.12	48.510	6271.05	362.07N	409.35E	==>	-339.59	
6400.00	6.12	48.510	6370.48	369.14N	417.34E	==>	-346.22	
6500.00	6.12	48.510	6469.91	376.21N	425.33E	==>	-352.85	
6600.00	6.12	48.510	6569.34	383.28N	433.32E	==>	-359.48	
6700.00	6.12	48.510	6668.77	390.35N	441.31E	==>	-366.11	
6800.00	7.22	140.290	6768.32	389.37N	449.35E	10.00	-364.71	
6900.00	16.22	163.700	6866.18	371.08N	457.30E	10.00	-346.02	
7000.00	25.95	170.250	6959.38	336.02N	464.95E	10.00	-310.60	
7100.00	35.83	173.380	7045.10	285.26N	472.05E	10.00	-259.52	
7200.00	45.75	175.280	7120.72	220.33N	478.38E	10.00	-194.35	
7300.00	55.70	176.640	7183.95	143.20N	483.77E	10.00	-117.05	
7400.00	65.65	177.700	7232.86	56.24N	488.03E	10.00	-29.98	
7500.00	75.62	178.600	7265.98	37.94S	491.05E	10.00	64.22	
7600.00	85.58	179.430	7282.29	136.46S	492.72E	10.00	162.69	
7700.00	90.03	179.790	7283.97	236.41S	493.23E	==>	262.53	
7800.00	90.03	179.790	7283.92	336.41S	493.59E	==>	362.40	
7900.00	90.03	179.790	7283.87	436.41S	493.95E	==>	462.28	
8000.00	90.03	179.790	7283.82	536.41S	494.32E	==>	562.15	
8100.00	90.03	179.790	7283.76	636.41S	494.68E	==>	662.03	
8200.00	90.03	179.790	7283.71	736.41S	495.04E	==>	761.90	
8300.00	90.03	179.790	7283.66	836.41S	495.41E	==>	861.78	
8400.00	90.03	179.790	7283.61	936.41S	495.77E	==>	961.65	
8500.00	90.03	179.790	7283.56	1036.41S	496.13E	==>	1061.53	
8600.00	90.03	179.790	7283.50	1136.41S	496.50E	==>	1161.40	
8700.00	90.03	179.790	7283.45	1236.40S	496.86E	==>	1261.28	
8800.00	90.03	179.790	7283.40	1336.40S	497.22E	==>	1361.15	
8900.00	90.03	179.790	7283.35	1436.40S	497.59E	==>	1461.03	

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Vertical Section is from 0.00N 0.00E on azimuth 176.930 degrees
Bottom hole distance is 9844.71 Feet on azimuth 176.93 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
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Well Design Combined Report
Wellbore: W EAST AULT P-18-19HN (PWB)



Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
9000.00	90.03	179.790	7283.30	1536.40S	497.95E	==>	1560.90	
9100.00	90.03	179.790	7283.25	1636.40S	498.31E	==>	1660.78	
9200.00	90.03	179.790	7283.19	1736.40S	498.67E	==>	1760.65	
9300.00	90.03	179.790	7283.14	1836.40S	499.04E	==>	1860.53	
9400.00	90.03	179.790	7283.09	1936.40S	499.40E	==>	1960.40	
9500.00	90.03	179.790	7283.04	2036.40S	499.76E	==>	2060.27	
9600.00	90.03	179.790	7282.99	2136.40S	500.13E	==>	2160.15	
9700.00	90.03	179.790	7282.93	2236.40S	500.49E	==>	2260.02	
9800.00	90.03	179.790	7282.88	2336.40S	500.85E	==>	2359.90	
9900.00	90.03	179.790	7282.83	2436.40S	501.22E	==>	2459.77	
10000.00	90.03	179.790	7282.78	2536.40S	501.58E	==>	2559.65	
10100.00	90.03	179.790	7282.73	2636.40S	501.94E	==>	2659.52	
10200.00	90.03	179.790	7282.68	2736.39S	502.31E	==>	2759.40	
10300.00	90.03	179.790	7282.62	2836.39S	502.67E	==>	2859.27	
10400.00	90.03	179.790	7282.57	2936.39S	503.03E	==>	2959.15	
10500.00	90.03	179.790	7282.52	3036.39S	503.40E	==>	3059.02	
10600.00	90.03	179.790	7282.47	3136.39S	503.76E	==>	3158.90	
10700.00	90.03	179.790	7282.42	3236.39S	504.12E	==>	3258.77	
10800.00	90.03	179.790	7282.37	3336.39S	504.49E	==>	3358.65	
10900.00	90.03	179.790	7282.31	3436.39S	504.85E	==>	3458.52	
11000.00	90.03	179.790	7282.26	3536.39S	505.21E	==>	3558.40	
11100.00	90.03	179.790	7282.21	3636.39S	505.58E	==>	3658.27	
11200.00	90.03	179.790	7282.16	3736.39S	505.94E	==>	3758.15	
11300.00	90.03	179.790	7282.11	3836.39S	506.30E	==>	3858.02	
11400.00	90.03	179.790	7282.05	3936.39S	506.67E	==>	3957.90	
11500.00	90.03	179.790	7282.00	4036.39S	507.03E	==>	4057.77	
11600.00	90.03	179.790	7281.95	4136.38S	507.39E	==>	4157.65	
11700.00	90.03	179.790	7281.90	4236.38S	507.76E	==>	4257.52	
11800.00	90.03	179.790	7281.85	4336.38S	508.12E	==>	4357.40	
11900.00	90.03	179.790	7281.80	4436.38S	508.48E	==>	4457.27	
12000.00	90.03	179.790	7281.74	4536.38S	508.84E	==>	4557.15	
12100.00	90.03	179.790	7281.69	4636.38S	509.21E	==>	4657.02	
12200.00	90.03	179.790	7281.64	4736.38S	509.57E	==>	4756.90	
12300.00	90.03	179.790	7281.59	4836.38S	509.93E	==>	4856.77	
12400.00	90.03	179.790	7281.54	4936.38S	510.30E	==>	4956.65	
12500.00	90.03	179.790	7281.48	5036.38S	510.66E	==>	5056.52	
12600.00	90.03	179.790	7281.43	5136.38S	511.02E	==>	5156.39	
12700.00	90.03	179.790	7281.38	5236.38S	511.39E	==>	5256.27	
12800.00	90.03	179.790	7281.33	5336.38S	511.75E	==>	5356.14	
12900.00	90.03	179.790	7281.28	5436.38S	512.11E	==>	5456.02	
13000.00	90.03	179.790	7281.23	5536.38S	512.48E	==>	5555.89	
13100.00	90.03	179.790	7281.17	5636.37S	512.84E	==>	5655.77	
13200.00	90.03	179.790	7281.12	5736.37S	513.20E	==>	5755.64	
13300.00	90.03	179.790	7281.07	5836.37S	513.57E	==>	5855.52	
13400.00	90.03	179.790	7281.02	5936.37S	513.93E	==>	5955.39	
13500.00	90.03	179.790	7280.97	6036.37S	514.29E	==>	6055.27	
13600.00	90.03	179.790	7280.91	6136.37S	514.66E	==>	6155.14	
13700.00	90.03	179.790	7280.86	6236.37S	515.02E	==>	6255.02	
13800.00	90.03	179.790	7280.81	6336.37S	515.38E	==>	6354.89	
13900.00	90.03	179.790	7280.76	6436.37S	515.75E	==>	6454.77	
14000.00	90.03	179.790	7280.71	6536.37S	516.11E	==>	6554.64	
14100.00	90.03	179.790	7280.66	6636.37S	516.47E	==>	6654.52	
14200.00	90.03	179.790	7280.60	6736.37S	516.84E	==>	6754.39	
14300.00	90.03	179.790	7280.55	6836.37S	517.20E	==>	6854.27	
14400.00	90.03	179.790	7280.50	6936.37S	517.56E	==>	6954.14	
14500.00	90.03	179.790	7280.45	7036.37S	517.93E	==>	7054.02	
14600.00	90.03	179.790	7280.40	7136.36S	518.29E	==>	7153.89	
14700.00	90.03	179.790	7280.34	7236.36S	518.65E	==>	7253.77	
14800.00	90.03	179.790	7280.29	7336.36S	519.01E	==>	7353.64	

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Interpolated Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	All Station Comments
14900.00	90.03	179.790	7280.24	7436.36S	519.38E	==>	7453.52	
15000.00	90.03	179.790	7280.19	7536.36S	519.74E	==>	7553.39	
15100.00	90.03	179.790	7280.14	7636.36S	520.10E	==>	7653.27	
15200.00	90.03	179.790	7280.09	7736.36S	520.47E	==>	7753.14	
15300.00	90.03	179.790	7280.03	7836.36S	520.83E	==>	7853.02	
15400.00	90.03	179.790	7279.98	7936.36S	521.19E	==>	7952.89	
15500.00	90.03	179.790	7279.93	8036.36S	521.56E	==>	8052.77	
15600.00	90.03	179.790	7279.88	8136.36S	521.92E	==>	8152.64	
15700.00	90.03	179.790	7279.83	8236.36S	522.28E	==>	8252.52	
15800.00	90.03	179.790	7279.77	8336.36S	522.65E	==>	8352.39	
15900.00	90.03	179.790	7279.72	8436.36S	523.01E	==>	8452.26	
16000.00	90.03	179.790	7279.67	8536.36S	523.37E	==>	8552.14	
16100.00	90.03	179.790	7279.62	8636.35S	523.74E	==>	8652.01	
16200.00	90.03	179.790	7279.57	8736.35S	524.10E	==>	8751.89	
16300.00	90.03	179.790	7279.52	8836.35S	524.46E	==>	8851.76	
16400.00	90.03	179.790	7279.46	8936.35S	524.83E	==>	8951.64	
16500.00	90.03	179.790	7279.41	9036.35S	525.19E	==>	9051.51	
16600.00	90.03	179.790	7279.36	9136.35S	525.55E	==>	9151.39	
16700.00	90.03	179.790	7279.31	9236.35S	525.92E	==>	9251.26	
16800.00	90.03	179.790	7279.26	9336.35S	526.28E	==>	9351.14	
16900.00	90.03	179.790	7279.20	9436.35S	526.64E	==>	9451.01	
17000.00	90.03	179.790	7279.15	9536.35S	527.01E	==>	9550.89	
17100.00	90.03	179.790	7279.10	9636.35S	527.37E	==>	9650.76	
17200.00	90.03	179.790	7279.05	9736.35S	527.73E	==>	9750.64	
17294.19	90.03	179.790	7279.00	9830.53S	528.07E	==>	9844.71	

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 4934.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 176.930 degrees
Bottom hole distance is 9844.71 Feet on azimuth 176.93 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
Date Printed: 27-Mar-2018



SYSDRILL
Well Design Combined Report
Wellbore: W EAST AULT P-18-19HN (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
EAST AULT P-18-19HN - BHL	9830.53S	528.07E	7279.00	40.55468200	-104.70313500	1445906.50	3221425.78
EAST AULT P-18-19HN - EP	181.02S	493.03E	7284.00	40.58116800	-104.70294900	1455555.74	3221390.73

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
620293	Planned	1500.00	1498.45	WdW Rate Gyro	Standard
620292	Planned	17294.19	7279.00	ISCWSA MWD	Rev 4 + SAG + FLT

Notes