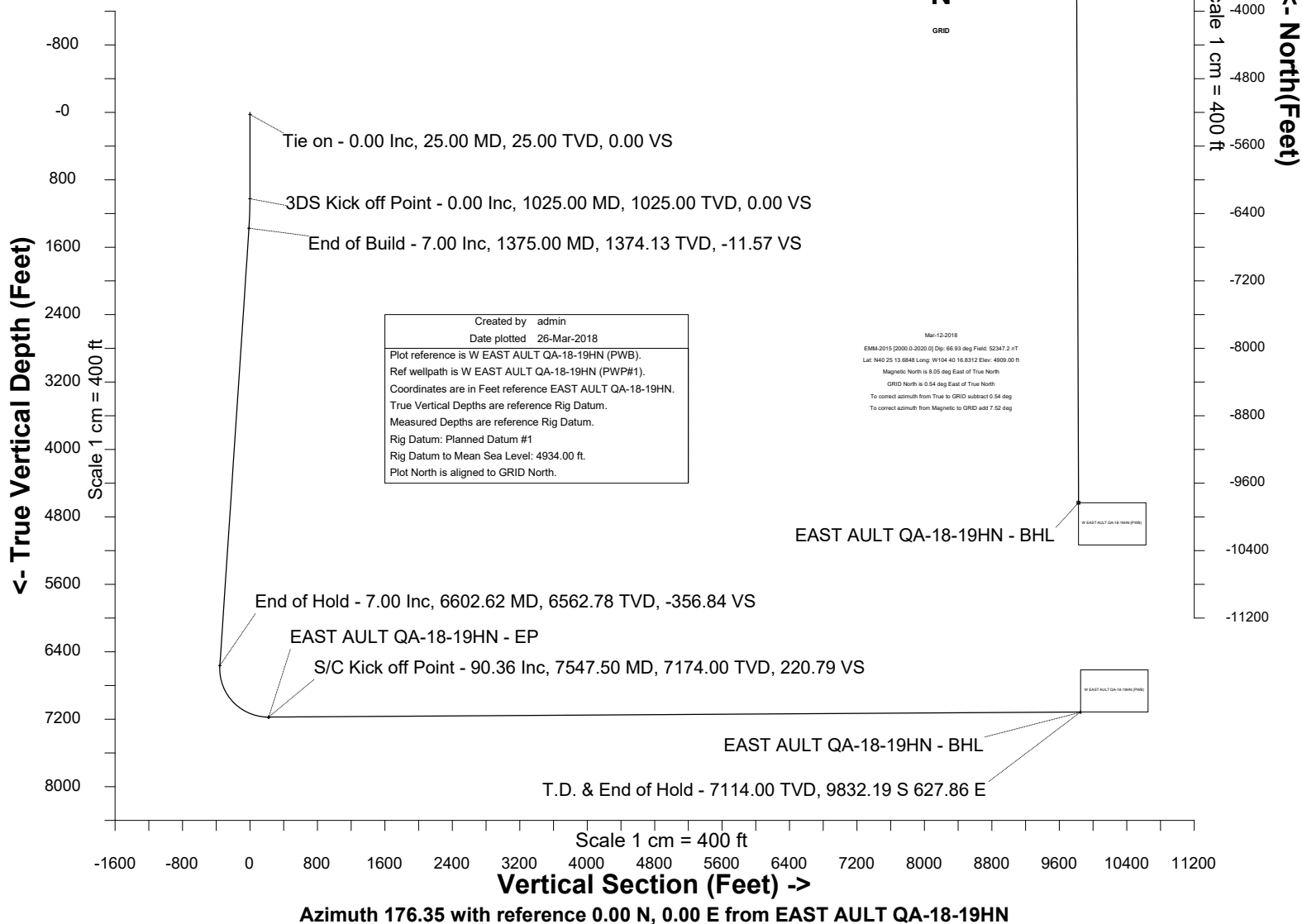


# BAYSWATER E & P, LLC

Location	Weld County, CO	Slot	EAST AULT QA-18-19HN
Field	WATTENBERG	Well	W EAST AULT QA-18-19HN
Installation	East Ault Pad	Wellbore	W EAST AULT QA-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	53.53	1025.00	S 0.00	W 0.00	0.00	0.00
End of Build	1375.00	7.00	53.53	1374.13	N 12.69	E 17.17	2.00	-11.57
End of Hold	6602.62	7.00	53.53	6562.78	N 391.38	E 529.49	0.00	-356.84
Target EAST A...N - EP	7547.50	90.36	179.79	7174.00	S 183.41	E 592.49	10.00	220.79
T.D. & Target EAS...BHL	17196.53	90.36	179.79	7114.00	S 9832.19	E 627.86	0.00	9852.21





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



#### Wellhead Details

Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
EAST AULT QA-18-19HN	40.58167600	-104.70466300	1455736.5246	3220913.0030	58644.06N	9804.19W	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	1455736.52	3220913.00
1025.00	0.00	53.530	1025.00	0.00N	0.00E	==>	0.00	1455736.52	3220913.00
1375.00	7.00	53.530	1374.13	12.69N	17.17E	2.00	-11.57	1455749.22	3220930.17
6602.62	7.00	53.530	6562.78	391.38N	529.49E	==>	-356.84	1456127.89	3221442.48
7547.50	90.36	179.790	7174.00	183.41S	592.49E	10.00	220.79	1455553.12	3221505.48
17196.53	90.36	179.790	7114.00	9832.19S	627.86E	==>	9852.21	1445904.62	3221540.84

#### 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	53.530	1099.99	0.58N	0.79E	2.00	-0.53	
1200.00	3.50	53.530	1199.89	3.18N	4.30E	2.00	-2.90	
1300.00	5.50	53.530	1299.58	7.84N	10.61E	2.00	-7.15	
1400.00	7.00	53.530	1398.94	14.50N	19.62E	==>	-13.22	
1500.00	7.00	53.530	1498.20	21.75N	29.42E	==>	-19.83	
1600.00	7.00	53.530	1597.45	28.99N	39.22E	==>	-26.43	
1700.00	7.00	53.530	1696.71	36.24N	49.02E	==>	-33.04	
1800.00	7.00	53.530	1795.96	43.48N	58.82E	==>	-39.64	
1900.00	7.00	53.530	1895.22	50.72N	68.62E	==>	-46.25	
2000.00	7.00	53.530	1994.47	57.97N	78.42E	==>	-52.85	
2100.00	7.00	53.530	2093.73	65.21N	88.22E	==>	-59.46	
2200.00	7.00	53.530	2192.98	72.46N	98.02E	==>	-66.06	
2300.00	7.00	53.530	2292.24	79.70N	107.82E	==>	-72.67	
2400.00	7.00	53.530	2391.49	86.94N	117.62E	==>	-79.27	
2500.00	7.00	53.530	2490.74	94.19N	127.42E	==>	-85.88	
2600.00	7.00	53.530	2590.00	101.43N	137.22E	==>	-92.48	
2700.00	7.00	53.530	2689.25	108.68N	147.03E	==>	-99.08	
2800.00	7.00	53.530	2788.51	115.92N	156.83E	==>	-105.69	
2900.00	7.00	53.530	2887.76	123.16N	166.63E	==>	-112.29	
3000.00	7.00	53.530	2987.02	130.41N	176.43E	==>	-118.90	

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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 176.350 degrees  
Bottom hole distance is 9852.21 Feet on azimuth 176.35 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 26-Mar-2018



SYS DRILL  
Well Design Combined Report  
Wellbore: W EAST AULT QA-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	7.00	53.530	3086.27	137.65N	186.23E	==>	-125.50	
3200.00	7.00	53.530	3185.53	144.90N	196.03E	==>	-132.11	
3300.00	7.00	53.530	3284.78	152.14N	205.83E	==>	-138.71	
3400.00	7.00	53.530	3384.04	159.38N	215.63E	==>	-145.32	
3500.00	7.00	53.530	3483.29	166.63N	225.43E	==>	-151.92	
3600.00	7.00	53.530	3582.55	173.87N	235.23E	==>	-158.53	
3700.00	7.00	53.530	3681.80	181.12N	245.03E	==>	-165.13	
3800.00	7.00	53.530	3781.05	188.36N	254.83E	==>	-171.74	
3900.00	7.00	53.530	3880.31	195.60N	264.63E	==>	-178.34	
4000.00	7.00	53.530	3979.56	202.85N	274.43E	==>	-184.95	
4100.00	7.00	53.530	4078.82	210.09N	284.23E	==>	-191.55	
4200.00	7.00	53.530	4178.07	217.34N	294.03E	==>	-198.16	
4300.00	7.00	53.530	4277.33	224.58N	303.83E	==>	-204.76	
4400.00	7.00	53.530	4376.58	231.82N	313.63E	==>	-211.36	
4500.00	7.00	53.530	4475.84	239.07N	323.43E	==>	-217.97	
4600.00	7.00	53.530	4575.09	246.31N	333.23E	==>	-224.57	
4700.00	7.00	53.530	4674.35	253.55N	343.03E	==>	-231.18	
4800.00	7.00	53.530	4773.60	260.80N	352.83E	==>	-237.78	
4900.00	7.00	53.530	4872.86	268.04N	362.63E	==>	-244.39	
5000.00	7.00	53.530	4972.11	275.29N	372.43E	==>	-250.99	
5100.00	7.00	53.530	5071.36	282.53N	382.23E	==>	-257.60	
5200.00	7.00	53.530	5170.62	289.77N	392.03E	==>	-264.20	
5300.00	7.00	53.530	5269.87	297.02N	401.83E	==>	-270.81	
5400.00	7.00	53.530	5369.13	304.26N	411.63E	==>	-277.41	
5500.00	7.00	53.530	5468.38	311.51N	421.43E	==>	-284.02	
5600.00	7.00	53.530	5567.64	318.75N	431.23E	==>	-290.62	
5700.00	7.00	53.530	5666.89	325.99N	441.03E	==>	-297.23	
5800.00	7.00	53.530	5766.15	333.24N	450.83E	==>	-303.83	
5900.00	7.00	53.530	5865.40	340.48N	460.63E	==>	-310.44	
6000.00	7.00	53.530	5964.66	347.73N	470.43E	==>	-317.04	
6100.00	7.00	53.530	6063.91	354.97N	480.23E	==>	-323.64	
6200.00	7.00	53.530	6163.17	362.21N	490.03E	==>	-330.25	
6300.00	7.00	53.530	6262.42	369.46N	499.83E	==>	-336.85	
6400.00	7.00	53.530	6361.67	376.70N	509.63E	==>	-343.46	
6500.00	7.00	53.530	6460.93	383.95N	519.43E	==>	-350.06	
6600.00	7.00	53.530	6560.18	391.19N	529.24E	==>	-356.67	
6700.00	7.96	134.650	6659.57	390.17N	539.08E	10.00	-355.02	
6800.00	16.58	160.320	6757.25	371.82N	548.84E	10.00	-336.09	
6900.00	26.18	168.130	6850.28	336.71N	558.20E	10.00	-300.45	
7000.00	36.00	171.920	6935.82	285.89N	566.89E	10.00	-249.18	
7100.00	45.88	174.240	7011.27	220.92N	574.64E	10.00	-183.85	
7200.00	55.80	175.890	7074.34	143.76N	581.22E	10.00	-106.43	
7300.00	65.73	177.200	7123.12	56.77N	586.43E	10.00	-19.28	
7400.00	75.68	178.310	7156.12	37.43S	590.10E	10.00	74.96	
7500.00	85.63	179.320	7172.34	135.95S	592.13E	10.00	173.41	
7600.00	90.36	179.790	7173.67	235.91S	592.69E	==>	273.20	
7700.00	90.36	179.790	7173.05	335.91S	593.05E	==>	373.02	
7800.00	90.36	179.790	7172.43	435.90S	593.42E	==>	472.83	
7900.00	90.36	179.790	7171.81	535.90S	593.79E	==>	572.65	
8000.00	90.36	179.790	7171.19	635.90S	594.15E	==>	672.47	
8100.00	90.36	179.790	7170.56	735.90S	594.52E	==>	772.29	
8200.00	90.36	179.790	7169.94	835.89S	594.89E	==>	872.10	
8300.00	90.36	179.790	7169.32	935.89S	595.25E	==>	971.92	
8400.00	90.36	179.790	7168.70	1035.89S	595.62E	==>	1071.74	
8500.00	90.36	179.790	7168.08	1135.89S	595.99E	==>	1171.56	
8600.00	90.36	179.790	7167.46	1235.88S	596.35E	==>	1271.37	
8700.00	90.36	179.790	7166.83	1335.88S	596.72E	==>	1371.19	
8800.00	90.36	179.790	7166.21	1435.88S	597.08E	==>	1471.01	
8900.00	90.36	179.790	7165.59	1535.87S	597.45E	==>	1570.83	

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Vertical Section is from 0.00N 0.00E on azimuth 176.350 degrees  
Bottom hole distance is 9852.21 Feet on azimuth 176.35 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
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SYSDRILL  
Well Design Combined Report  
Wellbore: W EAST AULT QA-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	90.36	179.790	7164.97	1635.87S	597.82E	==>	1670.64	
9100.00	90.36	179.790	7164.35	1735.87S	598.18E	==>	1770.46	
9200.00	90.36	179.790	7163.72	1835.87S	598.55E	==>	1870.28	
9300.00	90.36	179.790	7163.10	1935.86S	598.92E	==>	1970.10	
9400.00	90.36	179.790	7162.48	2035.86S	599.28E	==>	2069.91	
9500.00	90.36	179.790	7161.86	2135.86S	599.65E	==>	2169.73	
9600.00	90.36	179.790	7161.24	2235.86S	600.02E	==>	2269.55	
9700.00	90.36	179.790	7160.62	2335.85S	600.38E	==>	2369.37	
9800.00	90.36	179.790	7159.99	2435.85S	600.75E	==>	2469.18	
9900.00	90.36	179.790	7159.37	2535.85S	601.12E	==>	2569.00	
10000.00	90.36	179.790	7158.75	2635.85S	601.48E	==>	2668.82	
10100.00	90.36	179.790	7158.13	2735.84S	601.85E	==>	2768.64	
10200.00	90.36	179.790	7157.51	2835.84S	602.22E	==>	2868.45	
10300.00	90.36	179.790	7156.88	2935.84S	602.58E	==>	2968.27	
10400.00	90.36	179.790	7156.26	3035.84S	602.95E	==>	3068.09	
10500.00	90.36	179.790	7155.64	3135.83S	603.32E	==>	3167.91	
10600.00	90.36	179.790	7155.02	3235.83S	603.68E	==>	3267.72	
10700.00	90.36	179.790	7154.40	3335.83S	604.05E	==>	3367.54	
10800.00	90.36	179.790	7153.78	3435.83S	604.41E	==>	3467.36	
10900.00	90.36	179.790	7153.15	3535.82S	604.78E	==>	3567.18	
11000.00	90.36	179.790	7152.53	3635.82S	605.15E	==>	3666.99	
11100.00	90.36	179.790	7151.91	3735.82S	605.51E	==>	3766.81	
11200.00	90.36	179.790	7151.29	3835.81S	605.88E	==>	3866.63	
11300.00	90.36	179.790	7150.67	3935.81S	606.25E	==>	3966.45	
11400.00	90.36	179.790	7150.04	4035.81S	606.61E	==>	4066.26	
11500.00	90.36	179.790	7149.42	4135.81S	606.98E	==>	4166.08	
11600.00	90.36	179.790	7148.80	4235.80S	607.35E	==>	4265.90	
11700.00	90.36	179.790	7148.18	4335.80S	607.71E	==>	4365.72	
11800.00	90.36	179.790	7147.56	4435.80S	608.08E	==>	4465.53	
11900.00	90.36	179.790	7146.94	4535.80S	608.45E	==>	4565.35	
12000.00	90.36	179.790	7146.31	4635.79S	608.81E	==>	4665.17	
12100.00	90.36	179.790	7145.69	4735.79S	609.18E	==>	4764.99	
12200.00	90.36	179.790	7145.07	4835.79S	609.55E	==>	4864.80	
12300.00	90.36	179.790	7144.45	4935.79S	609.91E	==>	4964.62	
12400.00	90.36	179.790	7143.83	5035.78S	610.28E	==>	5064.44	
12500.00	90.36	179.790	7143.20	5135.78S	610.65E	==>	5164.26	
12600.00	90.36	179.790	7142.58	5235.78S	611.01E	==>	5264.07	
12700.00	90.36	179.790	7141.96	5335.78S	611.38E	==>	5363.89	
12800.00	90.36	179.790	7141.34	5435.77S	611.75E	==>	5463.71	
12900.00	90.36	179.790	7140.72	5535.77S	612.11E	==>	5563.53	
13000.00	90.36	179.790	7140.10	5635.77S	612.48E	==>	5663.34	
13100.00	90.36	179.790	7139.47	5735.77S	612.84E	==>	5763.16	
13200.00	90.36	179.790	7138.85	5835.76S	613.21E	==>	5862.98	
13300.00	90.36	179.790	7138.23	5935.76S	613.58E	==>	5962.80	
13400.00	90.36	179.790	7137.61	6035.76S	613.94E	==>	6062.61	
13500.00	90.36	179.790	7136.99	6135.75S	614.31E	==>	6162.43	
13600.00	90.36	179.790	7136.36	6235.75S	614.68E	==>	6262.25	
13700.00	90.36	179.790	7135.74	6335.75S	615.04E	==>	6362.07	
13800.00	90.36	179.790	7135.12	6435.75S	615.41E	==>	6461.88	
13900.00	90.36	179.790	7134.50	6535.74S	615.78E	==>	6561.70	
14000.00	90.36	179.790	7133.88	6635.74S	616.14E	==>	6661.52	
14100.00	90.36	179.790	7133.25	6735.74S	616.51E	==>	6761.34	
14200.00	90.36	179.790	7132.63	6835.74S	616.88E	==>	6861.15	
14300.00	90.36	179.790	7132.01	6935.73S	617.24E	==>	6960.97	
14400.00	90.36	179.790	7131.39	7035.73S	617.61E	==>	7060.79	
14500.00	90.36	179.790	7130.77	7135.73S	617.98E	==>	7160.61	
14600.00	90.36	179.790	7130.15	7235.73S	618.34E	==>	7260.42	
14700.00	90.36	179.790	7129.52	7335.72S	618.71E	==>	7360.24	
14800.00	90.36	179.790	7128.90	7435.72S	619.08E	==>	7460.06	

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Vertical Section is from 0.00N 0.00E on azimuth 176.350 degrees  
Bottom hole distance is 9852.21 Feet on azimuth 176.35 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
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Date Printed: 26-Mar-2018



SYS DRILL  
Well Design Combined Report  
Wellbore: W EAST AULT QA-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
14900.00	90.36	179.790	7128.28	7535.72S	619.44E	==>	7559.88	
15000.00	90.36	179.790	7127.66	7635.72S	619.81E	==>	7659.69	
15100.00	90.36	179.790	7127.04	7735.71S	620.17E	==>	7759.51	
15200.00	90.36	179.790	7126.41	7835.71S	620.54E	==>	7859.33	
15300.00	90.36	179.790	7125.79	7935.71S	620.91E	==>	7959.15	
15400.00	90.36	179.790	7125.17	8035.71S	621.27E	==>	8058.96	
15500.00	90.36	179.790	7124.55	8135.70S	621.64E	==>	8158.78	
15600.00	90.36	179.790	7123.93	8235.70S	622.01E	==>	8258.60	
15700.00	90.36	179.790	7123.31	8335.70S	622.37E	==>	8358.42	
15800.00	90.36	179.790	7122.68	8435.69S	622.74E	==>	8458.23	
15900.00	90.36	179.790	7122.06	8535.69S	623.11E	==>	8558.05	
16000.00	90.36	179.790	7121.44	8635.69S	623.47E	==>	8657.87	
16100.00	90.36	179.790	7120.82	8735.69S	623.84E	==>	8757.69	
16200.00	90.36	179.790	7120.20	8835.68S	624.21E	==>	8857.50	
16300.00	90.36	179.790	7119.57	8935.68S	624.57E	==>	8957.32	
16400.00	90.36	179.790	7118.95	9035.68S	624.94E	==>	9057.14	
16500.00	90.36	179.790	7118.33	9135.68S	625.31E	==>	9156.96	
16600.00	90.36	179.790	7117.71	9235.67S	625.67E	==>	9256.77	
16700.00	90.36	179.790	7117.09	9335.67S	626.04E	==>	9356.59	
16800.00	90.36	179.790	7116.47	9435.67S	626.41E	==>	9456.41	
16900.00	90.36	179.790	7115.84	9535.67S	626.77E	==>	9556.23	
17000.00	90.36	179.790	7115.22	9635.66S	627.14E	==>	9656.04	
17100.00	90.36	179.790	7114.60	9735.66S	627.51E	==>	9755.86	
17196.53	90.36	179.790	7114.00	9832.19S	627.86E	==>	9852.21	

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 176.350 degrees  
Bottom hole distance is 9852.21 Feet on azimuth 176.35 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by Microsoft  
Date Printed: 26-Mar-2018



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



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
EAST AULT QA-18-19HN - BHL	9832.19S	627.86E	7114.00	40.55467400	-104.70272100	1445904.62	3221540.84
EAST AULT QA-18-19HN - EP	183.41S	592.49E	7174.00	40.58115800	-104.70253600	1455553.12	3221505.48

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
620307	Planned	1500.00	1498.20	WdW Rate Gyro	Standard
620306	Planned	17196.53	7114.00	ISCWSA MWD	Rev 4 + SAG + FLT

Notes