

BAYSWATER E & P, LLC

Location	Weld County, CO	Slot	EAST AULT O-18-19HN
Field	WATTENBERG	Well	W EAST AULT O-18-19HN
Installation	East Ault Pad	Wellbore	W EAST AULT O-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	21.56	1025.00	S 0.00	W 0.00	0.00	0.00
End of Build	1248.78	4.48	21.56	1248.56	N 8.12	E 3.21	2.00	-8.05
End of Hold	6646.47	4.48	21.56	6629.78	N 399.88	E 157.97	0.00	-396.36
Target EAST A...N - EP	7589.81	90.18	179.79	7244.00	S 173.29	E 177.95	10.00	177.10
T.D. & Target EAS...BHL	17241.62	90.18	179.79	7214.00	S 9824.98	E 213.16	0.00	9827.30

East (Feet) ->

-800 0 800 1600
Scale 1 cm = 400 ft

Surface 0.00 N 0.00 E

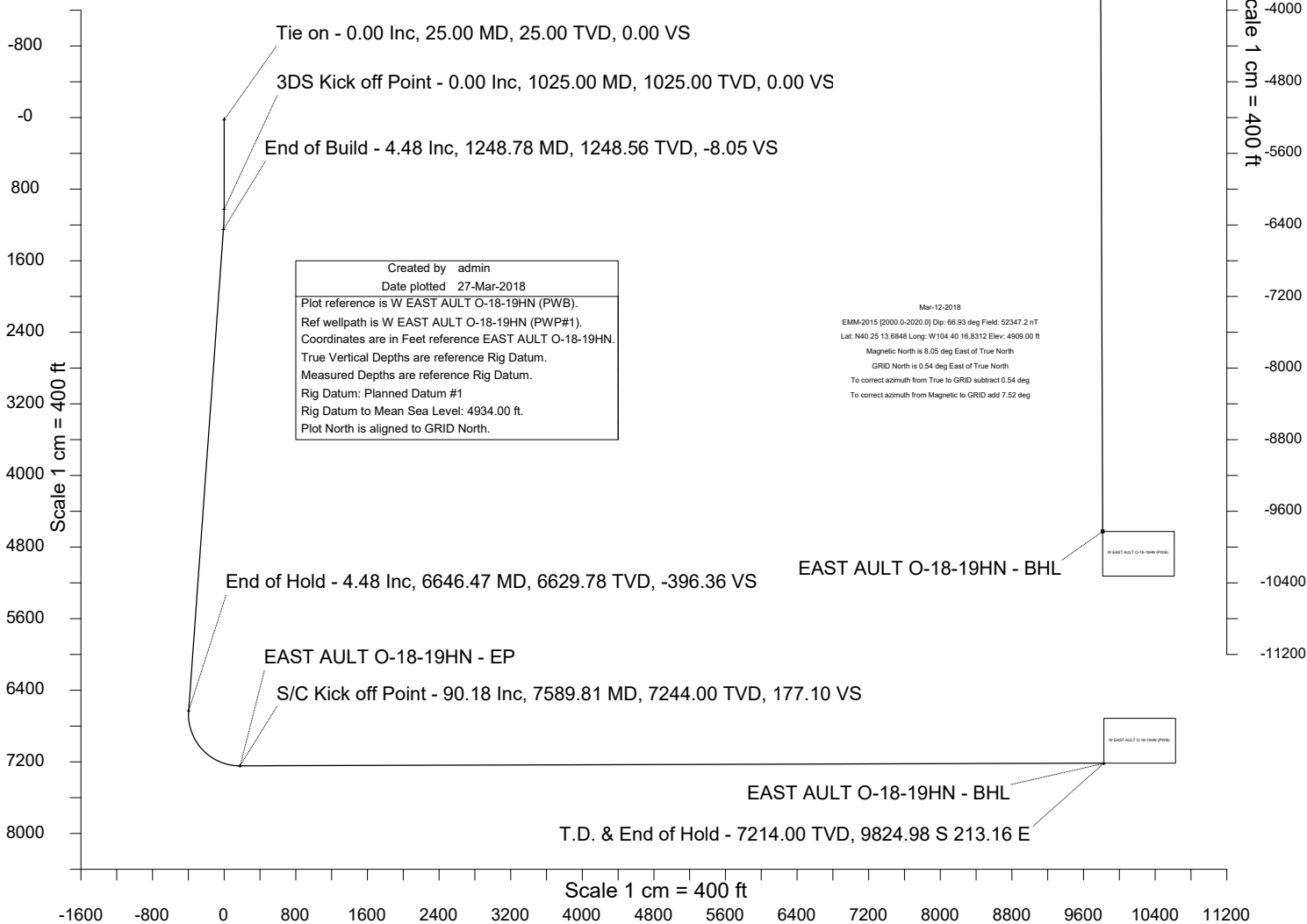
EAST AULT O-18-19HN - EP

N

GRID

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

<- True Vertical Depth (Feet)



Azimuth 178.76 with reference 0.00 N, 0.00 E from EAST AULT O-18-19HN



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



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
EAST AULT O-18-19HN	40.58167800	-104.70477200	1455736.9816	3220882.7214	58644.52N	9834.48W	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	1455736.98	3220882.72
1025.00	0.00	21.560	1025.00	0.00N	0.00E	==>	0.00	1455736.98	3220882.72
1248.78	4.48	21.560	1248.56	8.12N	3.21E	2.00	-8.05	1455745.11	3220885.93
6646.47	4.48	21.560	6629.78	399.88N	157.97E	==>	-396.36	1456136.85	3221040.69
7589.81	90.18	179.790	7244.00	173.29S	177.95E	10.00	177.10	1455563.70	3221060.66
17241.62	90.18	179.790	7214.00	9824.98S	213.16E	==>	9827.30	1445912.28	3221095.88

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	21.560	1099.99	0.91N	0.36E	2.00	-0.90	
1200.00	3.50	21.560	1199.89	4.97N	1.96E	2.00	-4.93	
1300.00	4.48	21.560	1299.62	11.84N	4.68E	==>	-11.74	
1400.00	4.48	21.560	1399.31	19.10N	7.55E	==>	-18.93	
1500.00	4.48	21.560	1499.01	26.36N	10.41E	==>	-26.13	
1600.00	4.48	21.560	1598.70	33.62N	13.28E	==>	-33.32	
1700.00	4.48	21.560	1698.40	40.87N	16.15E	==>	-40.51	
1800.00	4.48	21.560	1798.09	48.13N	19.01E	==>	-47.71	
1900.00	4.48	21.560	1897.79	55.39N	21.88E	==>	-54.90	
2000.00	4.48	21.560	1997.48	62.65N	24.75E	==>	-62.09	
2100.00	4.48	21.560	2097.18	69.90N	27.62E	==>	-69.29	
2200.00	4.48	21.560	2196.87	77.16N	30.48E	==>	-76.48	
2300.00	4.48	21.560	2296.57	84.42N	33.35E	==>	-83.68	
2400.00	4.48	21.560	2396.26	91.68N	36.22E	==>	-90.87	
2500.00	4.48	21.560	2495.96	98.94N	39.08E	==>	-98.06	
2600.00	4.48	21.560	2595.65	106.19N	41.95E	==>	-105.26	
2700.00	4.48	21.560	2695.35	113.45N	44.82E	==>	-112.45	
2800.00	4.48	21.560	2795.04	120.71N	47.69E	==>	-119.65	
2900.00	4.48	21.560	2894.74	127.97N	50.55E	==>	-126.84	
3000.00	4.48	21.560	2994.43	135.22N	53.42E	==>	-134.03	

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Coordinates are from Slot MD's are from Rig (Planned Datum #1 4934.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 178.760 degrees
Bottom hole distance is 9827.30 Feet on azimuth 178.76 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 O-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	4.48	21.560	3094.13	142.48N	56.29E	==>	-141.23	
3200.00	4.48	21.560	3193.82	149.74N	59.16E	==>	-148.42	
3300.00	4.48	21.560	3293.52	157.00N	62.02E	==>	-155.62	
3400.00	4.48	21.560	3393.21	164.26N	64.89E	==>	-162.81	
3500.00	4.48	21.560	3492.91	171.51N	67.76E	==>	-170.00	
3600.00	4.48	21.560	3592.60	178.77N	70.62E	==>	-177.20	
3700.00	4.48	21.560	3692.30	186.03N	73.49E	==>	-184.39	
3800.00	4.48	21.560	3791.99	193.29N	76.36E	==>	-191.58	
3900.00	4.48	21.560	3891.69	200.54N	79.23E	==>	-198.78	
4000.00	4.48	21.560	3991.38	207.80N	82.09E	==>	-205.97	
4100.00	4.48	21.560	4091.08	215.06N	84.96E	==>	-213.17	
4200.00	4.48	21.560	4190.77	222.32N	87.83E	==>	-220.36	
4300.00	4.48	21.560	4290.47	229.58N	90.69E	==>	-227.55	
4400.00	4.48	21.560	4390.16	236.83N	93.56E	==>	-234.75	
4500.00	4.48	21.560	4489.86	244.09N	96.43E	==>	-241.94	
4600.00	4.48	21.560	4589.55	251.35N	99.30E	==>	-249.14	
4700.00	4.48	21.560	4689.25	258.61N	102.16E	==>	-256.33	
4800.00	4.48	21.560	4788.94	265.86N	105.03E	==>	-263.52	
4900.00	4.48	21.560	4888.64	273.12N	107.90E	==>	-270.72	
5000.00	4.48	21.560	4988.33	280.38N	110.76E	==>	-277.91	
5100.00	4.48	21.560	5088.03	287.64N	113.63E	==>	-285.10	
5200.00	4.48	21.560	5187.72	294.90N	116.50E	==>	-292.30	
5300.00	4.48	21.560	5287.42	302.15N	119.37E	==>	-299.49	
5400.00	4.48	21.560	5387.11	309.41N	122.23E	==>	-306.69	
5500.00	4.48	21.560	5486.81	316.67N	125.10E	==>	-313.88	
5600.00	4.48	21.560	5586.50	323.93N	127.97E	==>	-321.07	
5700.00	4.48	21.560	5686.20	331.18N	130.84E	==>	-328.27	
5800.00	4.48	21.560	5785.89	338.44N	133.70E	==>	-335.46	
5900.00	4.48	21.560	5885.59	345.70N	136.57E	==>	-342.66	
6000.00	4.48	21.560	5985.28	352.96N	139.44E	==>	-349.85	
6100.00	4.48	21.560	6084.98	360.21N	142.30E	==>	-357.04	
6200.00	4.48	21.560	6184.67	367.47N	145.17E	==>	-364.24	
6300.00	4.48	21.560	6284.37	374.73N	148.04E	==>	-371.43	
6400.00	4.48	21.560	6384.06	381.99N	150.91E	==>	-378.63	
6500.00	4.48	21.560	6483.76	389.25N	153.77E	==>	-385.82	
6600.00	4.48	21.560	6583.45	396.50N	156.64E	==>	-393.01	
6700.00	2.05	125.550	6683.25	401.26N	159.52E	10.00	-397.71	
6800.00	11.32	171.450	6782.50	390.49N	162.44E	10.00	-386.88	
6900.00	21.26	175.510	6878.37	362.64N	165.33E	10.00	-358.97	
7000.00	31.24	177.040	6967.95	318.56N	168.09E	10.00	-314.84	
7100.00	41.22	177.890	7048.51	259.59N	170.65E	10.00	-255.83	
7200.00	51.22	178.450	7117.61	187.52N	172.93E	10.00	-183.72	
7300.00	61.21	178.870	7173.15	104.53N	174.85E	10.00	-100.72	
7400.00	71.21	179.220	7213.44	13.16N	176.36E	10.00	-9.33	
7500.00	81.20	179.530	7237.26	83.82S	177.42E	10.00	87.65	
7600.00	90.18	179.790	7243.97	183.48S	177.98E	==>	187.29	
7700.00	90.18	179.790	7243.66	283.48S	178.35E	==>	287.28	
7800.00	90.18	179.790	7243.35	383.47S	178.71E	==>	387.26	
7900.00	90.18	179.790	7243.04	483.47S	179.08E	==>	487.24	
8000.00	90.18	179.790	7242.73	583.47S	179.44E	==>	587.23	
8100.00	90.18	179.790	7242.41	683.47S	179.81E	==>	687.21	
8200.00	90.18	179.790	7242.10	783.47S	180.17E	==>	787.19	
8300.00	90.18	179.790	7241.79	883.47S	180.54E	==>	887.18	
8400.00	90.18	179.790	7241.48	983.47S	180.90E	==>	987.16	
8500.00	90.18	179.790	7241.17	1083.47S	181.27E	==>	1087.14	
8600.00	90.18	179.790	7240.86	1183.46S	181.63E	==>	1187.13	
8700.00	90.18	179.790	7240.55	1283.46S	182.00E	==>	1287.11	
8800.00	90.18	179.790	7240.24	1383.46S	182.36E	==>	1387.09	
8900.00	90.18	179.790	7239.93	1483.46S	182.73E	==>	1487.08	

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Vertical Section is from 0.00N 0.00E on azimuth 178.760 degrees
Bottom hole distance is 9827.30 Feet on azimuth 178.76 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 O-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	90.18	179.790	7239.62	1583.46S	183.09E	==>	1587.06	
9100.00	90.18	179.790	7239.31	1683.46S	183.46E	==>	1687.04	
9200.00	90.18	179.790	7239.00	1783.46S	183.82E	==>	1787.03	
9300.00	90.18	179.790	7238.68	1883.46S	184.19E	==>	1887.01	
9400.00	90.18	179.790	7238.37	1983.46S	184.55E	==>	1986.99	
9500.00	90.18	179.790	7238.06	2083.45S	184.92E	==>	2086.98	
9600.00	90.18	179.790	7237.75	2183.45S	185.28E	==>	2186.96	
9700.00	90.18	179.790	7237.44	2283.45S	185.65E	==>	2286.94	
9800.00	90.18	179.790	7237.13	2383.45S	186.01E	==>	2386.93	
9900.00	90.18	179.790	7236.82	2483.45S	186.38E	==>	2486.91	
10000.00	90.18	179.790	7236.51	2583.45S	186.74E	==>	2586.89	
10100.00	90.18	179.790	7236.20	2683.45S	187.11E	==>	2686.87	
10200.00	90.18	179.790	7235.89	2783.45S	187.47E	==>	2786.86	
10300.00	90.18	179.790	7235.58	2883.45S	187.84E	==>	2886.84	
10400.00	90.18	179.790	7235.27	2983.44S	188.20E	==>	2986.82	
10500.00	90.18	179.790	7234.95	3083.44S	188.57E	==>	3086.81	
10600.00	90.18	179.790	7234.64	3183.44S	188.93E	==>	3186.79	
10700.00	90.18	179.790	7234.33	3283.44S	189.30E	==>	3286.77	
10800.00	90.18	179.790	7234.02	3383.44S	189.66E	==>	3386.76	
10900.00	90.18	179.790	7233.71	3483.44S	190.03E	==>	3486.74	
11000.00	90.18	179.790	7233.40	3583.44S	190.39E	==>	3586.72	
11100.00	90.18	179.790	7233.09	3683.44S	190.76E	==>	3686.71	
11200.00	90.18	179.790	7232.78	3783.44S	191.12E	==>	3786.69	
11300.00	90.18	179.790	7232.47	3883.43S	191.48E	==>	3886.67	
11400.00	90.18	179.790	7232.16	3983.43S	191.85E	==>	3986.66	
11500.00	90.18	179.790	7231.85	4083.43S	192.21E	==>	4086.64	
11600.00	90.18	179.790	7231.54	4183.43S	192.58E	==>	4186.62	
11700.00	90.18	179.790	7231.22	4283.43S	192.94E	==>	4286.61	
11800.00	90.18	179.790	7230.91	4383.43S	193.31E	==>	4386.59	
11900.00	90.18	179.790	7230.60	4483.43S	193.67E	==>	4486.57	
12000.00	90.18	179.790	7230.29	4583.43S	194.04E	==>	4586.56	
12100.00	90.18	179.790	7229.98	4683.42S	194.40E	==>	4686.54	
12200.00	90.18	179.790	7229.67	4783.42S	194.77E	==>	4786.52	
12300.00	90.18	179.790	7229.36	4883.42S	195.13E	==>	4886.51	
12400.00	90.18	179.790	7229.05	4983.42S	195.50E	==>	4986.49	
12500.00	90.18	179.790	7228.74	5083.42S	195.86E	==>	5086.47	
12600.00	90.18	179.790	7228.43	5183.42S	196.23E	==>	5186.46	
12700.00	90.18	179.790	7228.12	5283.42S	196.59E	==>	5286.44	
12800.00	90.18	179.790	7227.81	5383.42S	196.96E	==>	5386.42	
12900.00	90.18	179.790	7227.49	5483.42S	197.32E	==>	5486.41	
13000.00	90.18	179.790	7227.18	5583.41S	197.69E	==>	5586.39	
13100.00	90.18	179.790	7226.87	5683.41S	198.05E	==>	5686.37	
13200.00	90.18	179.790	7226.56	5783.41S	198.42E	==>	5786.36	
13300.00	90.18	179.790	7226.25	5883.41S	198.78E	==>	5886.34	
13400.00	90.18	179.790	7225.94	5983.41S	199.15E	==>	5986.32	
13500.00	90.18	179.790	7225.63	6083.41S	199.51E	==>	6086.30	
13600.00	90.18	179.790	7225.32	6183.41S	199.88E	==>	6186.29	
13700.00	90.18	179.790	7225.01	6283.41S	200.24E	==>	6286.27	
13800.00	90.18	179.790	7224.70	6383.41S	200.61E	==>	6386.25	
13900.00	90.18	179.790	7224.39	6483.40S	200.97E	==>	6486.24	
14000.00	90.18	179.790	7224.08	6583.40S	201.34E	==>	6586.22	
14100.00	90.18	179.790	7223.76	6683.40S	201.70E	==>	6686.20	
14200.00	90.18	179.790	7223.45	6783.40S	202.07E	==>	6786.19	
14300.00	90.18	179.790	7223.14	6883.40S	202.43E	==>	6886.17	
14400.00	90.18	179.790	7222.83	6983.40S	202.80E	==>	6986.15	
14500.00	90.18	179.790	7222.52	7083.40S	203.16E	==>	7086.14	
14600.00	90.18	179.790	7222.21	7183.40S	203.53E	==>	7186.12	
14700.00	90.18	179.790	7221.90	7283.39S	203.89E	==>	7286.10	
14800.00	90.18	179.790	7221.59	7383.39S	204.26E	==>	7386.09	

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Bottom hole distance is 9827.30 Feet on azimuth 178.76 degrees from Wellhead
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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	90.18	179.790	7221.28	7483.39S	204.62E	==>	7486.07	
15000.00	90.18	179.790	7220.97	7583.39S	204.99E	==>	7586.05	
15100.00	90.18	179.790	7220.66	7683.39S	205.35E	==>	7686.04	
15200.00	90.18	179.790	7220.35	7783.39S	205.71E	==>	7786.02	
15300.00	90.18	179.790	7220.03	7883.39S	206.08E	==>	7886.00	
15400.00	90.18	179.790	7219.72	7983.39S	206.44E	==>	7985.99	
15500.00	90.18	179.790	7219.41	8083.39S	206.81E	==>	8085.97	
15600.00	90.18	179.790	7219.10	8183.38S	207.17E	==>	8185.95	
15700.00	90.18	179.790	7218.79	8283.38S	207.54E	==>	8285.94	
15800.00	90.18	179.790	7218.48	8383.38S	207.90E	==>	8385.92	
15900.00	90.18	179.790	7218.17	8483.38S	208.27E	==>	8485.90	
16000.00	90.18	179.790	7217.86	8583.38S	208.63E	==>	8585.89	
16100.00	90.18	179.790	7217.55	8683.38S	209.00E	==>	8685.87	
16200.00	90.18	179.790	7217.24	8783.38S	209.36E	==>	8785.85	
16300.00	90.18	179.790	7216.93	8883.38S	209.73E	==>	8885.84	
16400.00	90.18	179.790	7216.62	8983.38S	210.09E	==>	8985.82	
16500.00	90.18	179.790	7216.31	9083.37S	210.46E	==>	9085.80	
16600.00	90.18	179.790	7215.99	9183.37S	210.82E	==>	9185.79	
16700.00	90.18	179.790	7215.68	9283.37S	211.19E	==>	9285.77	
16800.00	90.18	179.790	7215.37	9383.37S	211.55E	==>	9385.75	
16900.00	90.18	179.790	7215.06	9483.37S	211.92E	==>	9485.74	
17000.00	90.18	179.790	7214.75	9583.37S	212.28E	==>	9585.72	
17100.00	90.18	179.790	7214.44	9683.37S	212.65E	==>	9685.70	
17200.00	90.18	179.790	7214.13	9783.37S	213.01E	==>	9785.68	
17241.62	90.18	179.790	7214.00	9824.98S	213.16E	==>	9827.30	

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 178.760 degrees
Bottom hole distance is 9827.30 Feet on azimuth 178.76 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 O-18-19HN (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
EAST AULT O-18-19HN - BHL	9824.98S	213.16E	7214.00	40.55470600	-104.70432200	1445912.28	3221095.88
EAST AULT O-18-19HN - EP	173.29S	177.95E	7244.00	40.58119800	-104.70413700	1455563.70	3221060.66

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
620286	Planned	1500.00	1499.01	WdW Rate Gyro	Standard
620285	Planned	17241.62	7214.00	ISCWSA MWD	Rev 4 + SAG + FLT

Notes



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W EAST AULT O-18-19HN (PWB)



Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Scan limit is calculated on CENTRE to CENTRE distance
Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.

Wellbore		
Name	Created	Last Revised
W EAST AULT O-18-19HN (PWB)	Mar-12-2018	Mar-26-2018

Well		
Name	Government ID	Last Revised
W EAST AULT O-18-19HN		Mar-12-2018

Slot						
Name	Latitude	Longitude	Grid Northing	Grid Easting	North	East
EAST AULT O-18-19HN	40.58167800	-104.70477200	1455736.9816	3220882.7214	58644.52N	9834.48W

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

Clearance Summary							
Offset WellName	Separation [ft]	MD[ft]	Diverging From[ft]	Ellipse Separation [ft]	Ellipse MD[ft]	Clearance Factor	Clearance MD[ft]
W Mapelli #1	119.49	17085.41	17085.41	-132.43	17085.41	0.47	17085.41
W Mapelli #2	1502.60	15912.15	15912.15	1279.38	15953.48	6.69	16051.90

