





## **Edge Energy, LLC**

**Sec. 16-T8N-R67W, Weld County CO**

**SLB 16**

**SLB 17-18-7H**

**Wellbore #1**

**Plan: Design #1 11Aug18 mnh**

## **Standard Planning Report - Geographic**

**14 August, 2018**

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site:</b>	SLB 16	<b>North Reference:</b>	True
<b>Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 11Aug18 mnh		

<b>Project</b>	Sec. 16-T8N-R67W, Weld County CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site	SLB 16				
Site Position:		Northing:	1,482,180.969 usft	Latitude:	40.655410
From:	Lat/Long	Easting:	3,167,857.078 usft	Longitude:	-104.895020
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	SLB 17-18-7H					
Well Position	+N/-S	0.00 usft	Northing:	1,482,093.848 usft	Latitude:	40.655170
	+E/-W	0.00 usft	Easting:	3,167,904.842 usft	Longitude:	-104.894850
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,251.00 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	8/13/2018	8.18	67.01	52,375.06557906

<b>Design</b>	Design #1 11Aug18 mnh			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	277.35

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/14/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,309.43 Design #1 11Aug18 mnh (Wellbo	MWD	
			OWSG MWD - Standard	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,064.76	31.30	307.54	1,988.10	254.00	-330.48	2.00	2.00	0.00	307.54	
7,514.79	31.30	307.54	6,645.17	1,979.17	-2,575.12	0.00	0.00	0.00	0.00	
8,351.57	90.46	267.65	7,046.00	2,109.64	-3,243.25	8.00	7.07	-4.77	-44.19	EP 2400' FSL, 300' FI
18,309.43	90.46	267.65	6,966.00	1,701.28	-13,192.41	0.00	0.00	0.00	0.00	BHL 2400' FSL, 300' I



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Planning Report - Geographic

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Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5266.00usft (Original Well Elev)
Project:	Sec. 16-T8N-R67W, Weld County CO	MD Reference:	WELL @ 5266.00usft (Original Well Elev)
Site:	SLB 16	North Reference:	True
Well:	SLB 17-18-7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 11Aug18 mnh		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,482,093.848	3,167,904.842	40.655170	-104.894850	
500.00	0.00	0.00	500.00	0.00	0.00	1,482,093.848	3,167,904.842	40.655170	-104.894850	
Start Build 2.00										
600.00	2.00	307.54	599.98	1.06	-1.38	1,482,094.902	3,167,903.451	40.655173	-104.894855	
700.00	4.00	307.54	699.84	4.25	-5.53	1,482,098.063	3,167,899.280	40.655182	-104.894870	
800.00	6.00	307.54	799.45	9.56	-12.44	1,482,103.326	3,167,892.334	40.655196	-104.894895	
900.00	8.00	307.54	898.70	16.99	-22.11	1,482,110.686	3,167,882.621	40.655217	-104.894930	
1,000.00	10.00	307.54	997.47	26.52	-34.51	1,482,120.134	3,167,870.153	40.655243	-104.894975	
1,100.00	12.00	307.54	1,095.62	38.15	-49.64	1,482,131.657	3,167,854.946	40.655275	-104.895029	
1,200.00	14.00	307.54	1,193.06	51.86	-67.47	1,482,145.243	3,167,837.018	40.655312	-104.895093	
1,300.00	16.00	307.54	1,289.64	67.63	-87.99	1,482,160.873	3,167,816.391	40.655356	-104.895167	
1,400.00	18.00	307.54	1,385.27	85.44	-111.17	1,482,178.531	3,167,793.090	40.655405	-104.895251	
1,500.00	20.00	307.54	1,479.82	105.28	-136.98	1,482,198.193	3,167,767.143	40.655459	-104.895344	
1,600.00	22.00	307.54	1,573.17	127.12	-165.40	1,482,219.835	3,167,738.582	40.655519	-104.895446	
1,700.00	24.00	307.54	1,665.21	150.93	-196.37	1,482,243.433	3,167,707.442	40.655584	-104.895558	
1,800.00	26.00	307.54	1,755.84	176.68	-229.88	1,482,268.956	3,167,673.760	40.655655	-104.895679	
1,900.00	28.00	307.54	1,844.94	204.34	-265.88	1,482,296.374	3,167,637.578	40.655731	-104.895809	
2,000.00	30.00	307.54	1,932.39	233.89	-304.31	1,482,325.653	3,167,598.940	40.655812	-104.895947	
2,064.76	31.30	307.54	1,988.10	254.00	-330.48	1,482,345.589	3,167,572.631	40.655867	-104.896041	
Hold 31.30 Inc, 307.54 Az										
2,100.00	31.30	307.54	2,018.22	265.16	-345.00	1,482,356.646	3,167,558.040	40.655898	-104.896094	
2,200.00	31.30	307.54	2,103.67	296.81	-386.19	1,482,388.018	3,167,516.639	40.655985	-104.896242	
2,300.00	31.30	307.54	2,189.12	328.47	-427.37	1,482,419.391	3,167,475.239	40.656072	-104.896391	
2,400.00	31.30	307.54	2,274.57	360.12	-468.56	1,482,450.763	3,167,433.838	40.656159	-104.896539	
2,500.00	31.30	307.54	2,360.02	391.78	-509.74	1,482,482.135	3,167,392.437	40.656245	-104.896687	
2,600.00	31.30	307.54	2,445.47	423.43	-550.93	1,482,513.508	3,167,351.037	40.656332	-104.896836	
2,700.00	31.30	307.54	2,530.92	455.08	-592.11	1,482,544.880	3,167,309.636	40.656419	-104.896984	
2,800.00	31.30	307.54	2,616.37	486.74	-633.30	1,482,576.253	3,167,268.235	40.656506	-104.897133	
2,900.00	31.30	307.54	2,701.82	518.39	-674.49	1,482,607.625	3,167,226.834	40.656593	-104.897281	
3,000.00	31.30	307.54	2,787.27	550.05	-715.67	1,482,638.998	3,167,185.434	40.656680	-104.897430	
3,100.00	31.30	307.54	2,872.72	581.70	-756.86	1,482,670.370	3,167,144.033	40.656767	-104.897578	
3,200.00	31.30	307.54	2,958.17	613.36	-798.04	1,482,701.742	3,167,102.632	40.656854	-104.897727	
3,300.00	31.30	307.54	3,043.62	645.01	-839.23	1,482,733.115	3,167,061.232	40.656940	-104.897875	
3,400.00	31.30	307.54	3,129.07	676.66	-880.41	1,482,764.487	3,167,019.831	40.657027	-104.898023	
3,500.00	31.30	307.54	3,214.52	708.32	-921.60	1,482,795.860	3,166,978.430	40.657114	-104.898172	
3,600.00	31.30	307.54	3,299.97	739.97	-962.78	1,482,827.232	3,166,937.030	40.657201	-104.898320	
3,700.00	31.30	307.54	3,385.43	771.63	-1,003.97	1,482,858.605	3,166,895.629	40.657288	-104.898469	
3,800.00	31.30	307.54	3,470.88	803.28	-1,045.16	1,482,889.977	3,166,854.228	40.657375	-104.898617	
3,900.00	31.30	307.54	3,556.33	834.93	-1,086.34	1,482,921.350	3,166,812.828	40.657462	-104.898766	
4,000.00	31.30	307.54	3,641.78	866.59	-1,127.53	1,482,952.722	3,166,771.427	40.657549	-104.898914	
4,100.00	31.30	307.54	3,727.23	898.24	-1,168.71	1,482,984.094	3,166,730.026	40.657636	-104.899063	
4,200.00	31.30	307.54	3,812.68	929.90	-1,209.90	1,483,015.467	3,166,688.626	40.657722	-104.899211	
4,300.00	31.30	307.54	3,898.13	961.55	-1,251.08	1,483,046.839	3,166,647.225	40.657809	-104.899359	
4,400.00	31.30	307.54	3,983.58	993.21	-1,292.27	1,483,078.212	3,166,605.824	40.657896	-104.899508	
4,500.00	31.30	307.54	4,069.03	1,024.86	-1,333.46	1,483,109.584	3,166,564.423	40.657983	-104.899656	
4,600.00	31.30	307.54	4,154.48	1,056.51	-1,374.64	1,483,140.957	3,166,523.023	40.658070	-104.899805	
4,700.00	31.30	307.54	4,239.93	1,088.17	-1,415.83	1,483,172.329	3,166,481.622	40.658157	-104.899953	
4,800.00	31.30	307.54	4,325.38	1,119.82	-1,457.01	1,483,203.701	3,166,440.221	40.658244	-104.900102	
4,900.00	31.30	307.54	4,410.83	1,151.48	-1,498.20	1,483,235.074	3,166,398.821	40.658331	-104.900250	
5,000.00	31.30	307.54	4,496.28	1,183.13	-1,539.38	1,483,266.446	3,166,357.420	40.658417	-104.900399	
5,100.00	31.30	307.54	4,581.73	1,214.79	-1,580.57	1,483,297.819	3,166,316.019	40.658504	-104.900547	
5,200.00	31.30	307.54	4,667.18	1,246.44	-1,621.75	1,483,329.191	3,166,274.619	40.658591	-104.900696	
5,300.00	31.30	307.54	4,752.63	1,278.09	-1,662.94	1,483,360.564	3,166,233.218	40.658678	-104.900844	
5,400.00	31.30	307.54	4,838.08	1,309.75	-1,704.13	1,483,391.936	3,166,191.817	40.658765	-104.900992	



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Wellbore:	Wellbore #1		
Design:	Design #1 11Aug18 mnH		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
5,500.00	31.30	307.54	4,923.53	1,341.40	-1,745.31	1,483,423.308	3,166,150.417	40.658852	-104.901141	
5,600.00	31.30	307.54	5,008.98	1,373.06	-1,786.50	1,483,454.681	3,166,109.016	40.658939	-104.901289	
5,700.00	31.30	307.54	5,094.43	1,404.71	-1,827.68	1,483,486.053	3,166,067.615	40.659026	-104.901438	
5,800.00	31.30	307.54	5,179.88	1,436.37	-1,868.87	1,483,517.426	3,166,026.215	40.659112	-104.901586	
5,900.00	31.30	307.54	5,265.33	1,468.02	-1,910.05	1,483,548.798	3,165,984.814	40.659199	-104.901735	
6,000.00	31.30	307.54	5,350.78	1,499.67	-1,951.24	1,483,580.171	3,165,943.413	40.659286	-104.901883	
6,100.00	31.30	307.54	5,436.23	1,531.33	-1,992.43	1,483,611.543	3,165,902.012	40.659373	-104.902032	
6,200.00	31.30	307.54	5,521.68	1,562.98	-2,033.61	1,483,642.915	3,165,860.612	40.659460	-104.902180	
6,300.00	31.30	307.54	5,607.13	1,594.64	-2,074.80	1,483,674.288	3,165,819.211	40.659547	-104.902329	
6,400.00	31.30	307.54	5,692.58	1,626.29	-2,115.98	1,483,705.660	3,165,777.810	40.659634	-104.902477	
6,500.00	31.30	307.54	5,778.03	1,657.94	-2,157.17	1,483,737.033	3,165,736.410	40.659721	-104.902625	
6,600.00	31.30	307.54	5,863.48	1,689.60	-2,198.35	1,483,768.405	3,165,695.009	40.659807	-104.902774	
6,700.00	31.30	307.54	5,948.93	1,721.25	-2,239.54	1,483,799.778	3,165,653.608	40.659894	-104.902922	
6,800.00	31.30	307.54	6,034.38	1,752.91	-2,280.72	1,483,831.150	3,165,612.208	40.659981	-104.903071	
6,900.00	31.30	307.54	6,119.83	1,784.56	-2,321.91	1,483,862.523	3,165,570.807	40.660068	-104.903219	
7,000.00	31.30	307.54	6,205.28	1,816.22	-2,363.10	1,483,893.895	3,165,529.406	40.660155	-104.903368	
7,100.00	31.30	307.54	6,290.74	1,847.87	-2,404.28	1,483,925.267	3,165,488.006	40.660242	-104.903516	
7,200.00	31.30	307.54	6,376.19	1,879.52	-2,445.47	1,483,956.640	3,165,446.605	40.660329	-104.903665	
7,300.00	31.30	307.54	6,461.64	1,911.18	-2,486.65	1,483,988.012	3,165,405.204	40.660416	-104.903813	
7,400.00	31.30	307.54	6,547.09	1,942.83	-2,527.84	1,484,019.385	3,165,363.804	40.660502	-104.903962	
7,500.00	31.30	307.54	6,632.54	1,974.49	-2,569.02	1,484,050.757	3,165,322.403	40.660589	-104.904110	
7,514.79	31.30	307.54	6,645.17	1,979.17	-2,575.12	1,484,055.397	3,165,316.279	40.660602	-104.904132	
KOP 8/100										
7,600.00	36.46	299.54	6,715.93	2,005.17	-2,614.74	1,484,081.127	3,165,276.482	40.660674	-104.904275	
7,700.00	43.04	292.41	6,792.81	2,032.87	-2,672.23	1,484,108.439	3,165,218.798	40.660750	-104.904482	
7,800.00	49.97	286.87	6,861.62	2,057.03	-2,740.53	1,484,132.131	3,165,150.336	40.660816	-104.904728	
7,900.00	57.11	282.38	6,921.03	2,077.18	-2,818.30	1,484,151.744	3,165,072.429	40.660871	-104.905009	
8,000.00	64.38	278.56	6,969.88	2,092.92	-2,904.04	1,484,166.896	3,164,986.591	40.660914	-104.905318	
8,100.00	71.75	275.19	7,007.22	2,103.94	-2,996.06	1,484,177.292	3,164,894.495	40.660945	-104.905649	
8,200.00	79.17	272.09	7,032.31	2,110.03	-3,092.58	1,484,182.728	3,164,797.932	40.660961	-104.905997	
8,300.00	86.61	269.15	7,044.68	2,111.08	-3,191.73	1,484,183.101	3,164,698.783	40.660964	-104.906355	
8,351.57	90.46	267.65	7,046.00	2,109.64	-3,243.25	1,484,181.307	3,164,647.267	40.660960	-104.906540	
EP 90.46 Inc, 267.65 Az										
8,400.00	90.46	267.65	7,045.61	2,107.66	-3,291.64	1,484,178.991	3,164,598.899	40.660955	-104.906715	
8,500.00	90.46	267.65	7,044.81	2,103.55	-3,391.55	1,484,174.208	3,164,499.017	40.660943	-104.907075	
8,600.00	90.46	267.65	7,044.00	2,099.45	-3,491.46	1,484,169.426	3,164,399.134	40.660932	-104.907435	
8,700.00	90.46	267.65	7,043.20	2,095.35	-3,591.37	1,484,164.643	3,164,299.252	40.660921	-104.907795	
8,800.00	90.46	267.65	7,042.40	2,091.25	-3,691.29	1,484,159.860	3,164,199.370	40.660909	-104.908155	
8,900.00	90.46	267.65	7,041.59	2,087.15	-3,791.20	1,484,155.078	3,164,099.487	40.660898	-104.908515	
9,000.00	90.46	267.65	7,040.79	2,083.05	-3,891.11	1,484,150.295	3,163,999.605	40.660887	-104.908875	
9,100.00	90.46	267.65	7,039.99	2,078.95	-3,991.02	1,484,145.513	3,163,899.723	40.660876	-104.909236	
9,200.00	90.46	267.65	7,039.18	2,074.85	-4,090.94	1,484,140.730	3,163,799.840	40.660864	-104.909596	
9,300.00	90.46	267.65	7,038.38	2,070.75	-4,190.85	1,484,135.947	3,163,699.958	40.660853	-104.909956	
9,400.00	90.46	267.65	7,037.58	2,066.65	-4,290.76	1,484,131.165	3,163,600.076	40.660842	-104.910316	
9,500.00	90.46	267.65	7,036.77	2,062.55	-4,390.68	1,484,126.382	3,163,500.194	40.660830	-104.910676	
9,600.00	90.46	267.65	7,035.97	2,058.44	-4,490.59	1,484,121.600	3,163,400.311	40.660819	-104.911036	
9,700.00	90.46	267.65	7,035.17	2,054.34	-4,590.50	1,484,116.817	3,163,300.429	40.660808	-104.911396	
9,800.00	90.46	267.65	7,034.36	2,050.24	-4,690.41	1,484,112.034	3,163,200.547	40.660796	-104.911756	
9,900.00	90.46	267.65	7,033.56	2,046.14	-4,790.33	1,484,107.252	3,163,100.664	40.660785	-104.912116	
10,000.00	90.46	267.65	7,032.76	2,042.04	-4,890.24	1,484,102.469	3,163,000.782	40.660774	-104.912477	
10,100.00	90.46	267.65	7,031.95	2,037.94	-4,990.15	1,484,097.686	3,162,900.900	40.660762	-104.912837	
10,200.00	90.46	267.65	7,031.15	2,033.84	-5,090.06	1,484,092.904	3,162,801.017	40.660751	-104.913197	
10,300.00	90.46	267.65	7,030.35	2,029.74	-5,189.98	1,484,088.121	3,162,701.135	40.660740	-104.913557	
10,400.00	90.46	267.65	7,029.54	2,025.64	-5,289.89	1,484,083.339	3,162,601.253	40.660729	-104.913917	



Microsoft  
Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well SLB 17-18-7H
Company:	Edge Energy, LLC	TVD Reference:	WELL @ 5266.00usft (Original Well Elev)
Project:	Sec. 16-T8N-R67W, Weld County CO	MD Reference:	WELL @ 5266.00usft (Original Well Elev)
Site:	SLB 16	North Reference:	True
Well:	SLB 17-18-7H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 11Aug18 mnH		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
10,500.00	90.46	267.65	7,028.74	2,021.54	-5,389.80	1,484,078.556	3,162,501.370	40.660717	-104.914277	
10,600.00	90.46	267.65	7,027.94	2,017.44	-5,489.71	1,484,073.773	3,162,401.488	40.660706	-104.914637	
10,700.00	90.46	267.65	7,027.13	2,013.34	-5,589.63	1,484,068.991	3,162,301.606	40.660695	-104.914997	
10,800.00	90.46	267.65	7,026.33	2,009.23	-5,689.54	1,484,064.208	3,162,201.723	40.660683	-104.915358	
10,900.00	90.46	267.65	7,025.53	2,005.13	-5,789.45	1,484,059.425	3,162,101.841	40.660672	-104.915718	
11,000.00	90.46	267.65	7,024.72	2,001.03	-5,889.36	1,484,054.643	3,162,001.959	40.660661	-104.916078	
11,100.00	90.46	267.65	7,023.92	1,996.93	-5,989.28	1,484,049.860	3,161,902.076	40.660649	-104.916438	
11,200.00	90.46	267.65	7,023.12	1,992.83	-6,089.19	1,484,045.078	3,161,802.194	40.660638	-104.916798	
11,300.00	90.46	267.65	7,022.31	1,988.73	-6,189.10	1,484,040.295	3,161,702.312	40.660627	-104.917158	
11,400.00	90.46	267.65	7,021.51	1,984.63	-6,289.02	1,484,035.512	3,161,602.429	40.660615	-104.917518	
11,500.00	90.46	267.65	7,020.71	1,980.53	-6,388.93	1,484,030.730	3,161,502.547	40.660604	-104.917878	
11,600.00	90.46	267.65	7,019.90	1,976.43	-6,488.84	1,484,025.947	3,161,402.665	40.660593	-104.918239	
11,700.00	90.46	267.65	7,019.10	1,972.33	-6,588.75	1,484,021.164	3,161,302.782	40.660581	-104.918599	
11,800.00	90.46	267.65	7,018.30	1,968.23	-6,688.67	1,484,016.382	3,161,202.900	40.660570	-104.918959	
11,900.00	90.46	267.65	7,017.49	1,964.12	-6,788.58	1,484,011.599	3,161,103.018	40.660559	-104.919319	
12,000.00	90.46	267.65	7,016.69	1,960.02	-6,888.49	1,484,006.817	3,161,003.135	40.660547	-104.919679	
12,100.00	90.46	267.65	7,015.89	1,955.92	-6,988.40	1,484,002.034	3,160,903.253	40.660536	-104.920039	
12,200.00	90.46	267.65	7,015.08	1,951.82	-7,088.32	1,483,997.251	3,160,803.371	40.660525	-104.920399	
12,300.00	90.46	267.65	7,014.28	1,947.72	-7,188.23	1,483,992.469	3,160,703.488	40.660513	-104.920759	
12,400.00	90.46	267.65	7,013.48	1,943.62	-7,288.14	1,483,987.686	3,160,603.606	40.660502	-104.921120	
12,500.00	90.46	267.65	7,012.67	1,939.52	-7,388.05	1,483,982.903	3,160,503.724	40.660491	-104.921480	
12,600.00	90.46	267.65	7,011.87	1,935.42	-7,487.97	1,483,978.121	3,160,403.841	40.660479	-104.921840	
12,700.00	90.46	267.65	7,011.07	1,931.32	-7,587.88	1,483,973.338	3,160,303.959	40.660468	-104.922200	
12,800.00	90.46	267.65	7,010.26	1,927.22	-7,687.79	1,483,968.556	3,160,204.077	40.660457	-104.922560	
12,900.00	90.46	267.65	7,009.46	1,923.12	-7,787.71	1,483,963.773	3,160,104.194	40.660445	-104.922920	
13,000.00	90.46	267.65	7,008.66	1,919.01	-7,887.62	1,483,958.990	3,160,004.312	40.660434	-104.923280	
13,100.00	90.46	267.65	7,007.85	1,914.91	-7,987.53	1,483,954.208	3,159,904.430	40.660423	-104.923640	
13,200.00	90.46	267.65	7,007.05	1,910.81	-8,087.44	1,483,949.425	3,159,804.547	40.660411	-104.924000	
13,300.00	90.46	267.65	7,006.25	1,906.71	-8,187.36	1,483,944.642	3,159,704.665	40.660400	-104.924361	
13,400.00	90.46	267.65	7,005.44	1,902.61	-8,287.27	1,483,939.860	3,159,604.783	40.660389	-104.924721	
13,500.00	90.46	267.65	7,004.64	1,898.51	-8,387.18	1,483,935.077	3,159,504.900	40.660377	-104.925081	
13,600.00	90.46	267.65	7,003.84	1,894.41	-8,487.09	1,483,930.295	3,159,405.018	40.660366	-104.925441	
13,700.00	90.46	267.65	7,003.03	1,890.31	-8,587.01	1,483,925.512	3,159,305.136	40.660355	-104.925801	
13,800.00	90.46	267.65	7,002.23	1,886.21	-8,686.92	1,483,920.729	3,159,205.253	40.660343	-104.926161	
13,900.00	90.46	267.65	7,001.42	1,882.11	-8,786.83	1,483,915.947	3,159,105.371	40.660332	-104.926521	
14,000.00	90.46	267.65	7,000.62	1,878.01	-8,886.74	1,483,911.164	3,159,005.489	40.660320	-104.926881	
14,100.00	90.46	267.65	6,999.82	1,873.91	-8,986.66	1,483,906.381	3,158,905.606	40.660309	-104.927242	
14,200.00	90.46	267.65	6,999.01	1,869.80	-9,086.57	1,483,901.599	3,158,805.724	40.660298	-104.927602	
14,300.00	90.46	267.65	6,998.21	1,865.70	-9,186.48	1,483,896.816	3,158,705.842	40.660286	-104.927962	
14,400.00	90.46	267.65	6,997.41	1,861.60	-9,286.40	1,483,892.034	3,158,605.959	40.660275	-104.928322	
14,500.00	90.46	267.65	6,996.60	1,857.50	-9,386.31	1,483,887.251	3,158,506.077	40.660264	-104.928682	
14,600.00	90.46	267.65	6,995.80	1,853.40	-9,486.22	1,483,882.468	3,158,406.195	40.660252	-104.929042	
14,700.00	90.46	267.65	6,995.00	1,849.30	-9,586.13	1,483,877.686	3,158,306.312	40.660241	-104.929402	
14,800.00	90.46	267.65	6,994.19	1,845.20	-9,686.05	1,483,872.903	3,158,206.430	40.660230	-104.929762	
14,900.00	90.46	267.65	6,993.39	1,841.10	-9,785.96	1,483,868.120	3,158,106.548	40.660218	-104.930122	
15,000.00	90.46	267.65	6,992.59	1,837.00	-9,885.87	1,483,863.338	3,158,006.665	40.660207	-104.930483	
15,100.00	90.46	267.65	6,991.78	1,832.90	-9,985.78	1,483,858.555	3,157,906.783	40.660195	-104.930843	
15,200.00	90.46	267.65	6,990.98	1,828.80	-10,085.70	1,483,853.773	3,157,806.901	40.660184	-104.931203	
15,300.00	90.46	267.65	6,990.18	1,824.69	-10,185.61	1,483,848.990	3,157,707.018	40.660173	-104.931563	
15,400.00	90.46	267.65	6,989.37	1,820.59	-10,285.52	1,483,844.207	3,157,607.136	40.660161	-104.931923	
15,500.00	90.46	267.65	6,988.57	1,816.49	-10,385.43	1,483,839.425	3,157,507.254	40.660150	-104.932283	
15,600.00	90.46	267.65	6,987.77	1,812.39	-10,485.35	1,483,834.642	3,157,407.371	40.660139	-104.932643	
15,700.00	90.46	267.65	6,986.96	1,808.29	-10,585.26	1,483,829.860	3,157,307.489	40.660127	-104.933003	
15,800.00	90.46	267.65	6,986.16	1,804.19	-10,685.17	1,483,825.077	3,157,207.607	40.660116	-104.933363	
15,900.00	90.46	267.65	6,985.36	1,800.09	-10,785.08	1,483,820.294	3,157,107.724	40.660105	-104.933724	



**Microsoft**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site:</b>	SLB 16	<b>North Reference:</b>	True
<b>Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 11Aug18 mnh		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,000.00	90.46	267.65	6,984.55	1,795.99	-10,885.00	1,483,815.512	3,157,007.842	40.660093	-104.934084
16,100.00	90.46	267.65	6,983.75	1,791.89	-10,984.91	1,483,810.729	3,156,907.960	40.660082	-104.934444
16,200.00	90.46	267.65	6,982.95	1,787.79	-11,084.82	1,483,805.946	3,156,808.077	40.660070	-104.934804
16,300.00	90.46	267.65	6,982.14	1,783.69	-11,184.74	1,483,801.164	3,156,708.195	40.660059	-104.935164
16,400.00	90.46	267.65	6,981.34	1,779.58	-11,284.65	1,483,796.381	3,156,608.313	40.660048	-104.935524
16,500.00	90.46	267.65	6,980.54	1,775.48	-11,384.56	1,483,791.599	3,156,508.430	40.660036	-104.935884
16,600.00	90.46	267.65	6,979.73	1,771.38	-11,484.47	1,483,786.816	3,156,408.548	40.660025	-104.936244
16,700.00	90.46	267.65	6,978.93	1,767.28	-11,584.39	1,483,782.033	3,156,308.666	40.660013	-104.936605
16,800.00	90.46	267.65	6,978.13	1,763.18	-11,684.30	1,483,777.251	3,156,208.783	40.660002	-104.936965
16,900.00	90.46	267.65	6,977.32	1,759.08	-11,784.21	1,483,772.468	3,156,108.901	40.659991	-104.937325
17,000.00	90.46	267.65	6,976.52	1,754.98	-11,884.12	1,483,767.685	3,156,009.019	40.659979	-104.937685
17,100.00	90.46	267.65	6,975.72	1,750.88	-11,984.04	1,483,762.903	3,155,909.136	40.659968	-104.938045
17,200.00	90.46	267.65	6,974.91	1,746.78	-12,083.95	1,483,758.120	3,155,809.254	40.659957	-104.938405
17,300.00	90.46	267.65	6,974.11	1,742.68	-12,183.86	1,483,753.338	3,155,709.372	40.659945	-104.938765
17,400.00	90.46	267.65	6,973.31	1,738.58	-12,283.77	1,483,748.555	3,155,609.489	40.659934	-104.939125
17,500.00	90.46	267.65	6,972.50	1,734.48	-12,383.69	1,483,743.772	3,155,509.607	40.659922	-104.939485
17,600.00	90.46	267.65	6,971.70	1,730.37	-12,483.60	1,483,738.990	3,155,409.725	40.659911	-104.939846
17,700.00	90.46	267.65	6,970.90	1,726.27	-12,583.51	1,483,734.207	3,155,309.842	40.659900	-104.940206
17,800.00	90.46	267.65	6,970.09	1,722.17	-12,683.43	1,483,729.424	3,155,209.960	40.659888	-104.940566
17,900.00	90.46	267.65	6,969.29	1,718.07	-12,783.34	1,483,724.642	3,155,110.078	40.659877	-104.940926
18,000.00	90.46	267.65	6,968.49	1,713.97	-12,883.25	1,483,719.859	3,155,010.195	40.659865	-104.941286
18,100.00	90.46	267.65	6,967.68	1,709.87	-12,983.16	1,483,715.077	3,154,910.313	40.659854	-104.941646
18,200.00	90.46	267.65	6,966.88	1,705.77	-13,083.08	1,483,710.294	3,154,810.431	40.659843	-104.942006
18,300.00	90.46	267.65	6,966.08	1,701.67	-13,182.99	1,483,705.511	3,154,710.548	40.659831	-104.942366
18,309.43	90.46	267.65	6,966.00	1,701.28	-13,192.41	1,483,705.060	3,154,701.131	40.659830	-104.942400
TD at 18309.43									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 288' FSL, 2178' FEI - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	1,482,093.848	3,167,904.842	40.655170	-104.894850
BHL 2400' FSL, 300' FW - plan hits target center - Point	0.00	0.00	6,966.00	1,701.28	-13,192.41	1,483,705.060	3,154,701.131	40.659830	-104.942400
EP 2400' FSL, 300' FEL - plan hits target center - Point	0.00	0.00	7,046.00	2,109.64	-3,243.25	1,484,181.307	3,164,647.267	40.660960	-104.906540

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
500.00	500.00	0.00	0.00	Start Build 2.00	
2,064.76	1,988.10	254.00	-330.48	Hold 31.30 Inc, 307.54 Az	
7,514.79	6,645.17	1,979.17	-2,575.12	KOP 8/100	
8,351.57	7,046.00	2,109.64	-3,243.25	EP 90.46 Inc, 267.65 Az	
18,309.43	6,966.00	1,701.28	-13,192.41	TD at 18309.43	



## **Edge Energy, LLC**

**Sec. 16-T8N-R67W, Weld County CO**

**SLB 16**

**SLB 17-18-7H**

**Wellbore #1**

**Design #1 11Aug18 mnh**

# **Anticollision Summary Report**

**14 August, 2018**





Microsoft  
Anticollision Summary Report

<b>Company:</b>	Edge Energy, LLC	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Reference Site:</b>	SLB 16	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 11Aug18 mnH	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Design #1 11Aug18 mnH		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 9,999.98 usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Tool Program</b>	<b>Date</b> 8/14/2018	
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>
0.00	18,309.43	Design #1 11Aug18 mnH (Wellbore #1)
		<b>Tool Name</b>
		MWD
		<b>Description</b>
		OWSG MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
SLB 16						
SLB 16-9-10H - Wellbore #1 - Design #1 8Aug18 mnH	500.00	500.00	61.15	57.98	19.275	CC, ES
SLB 16-9-10H - Wellbore #1 - Design #1 8Aug18 mnH	700.00	695.99	72.01	67.45	15.804	SF
SLB 16-9-11H - Wellbore #1 - Design #1 8Aug18 mnH	500.00	500.00	72.23	69.06	22.768	CC, ES
SLB 16-9-11H - Wellbore #1 - Design #1 8Aug18 mnH	700.00	694.69	84.31	79.76	18.508	SF
SLB 16-9-12H - Wellbore #1 - Design #1 8Aug18 mnH	416.33	417.33	84.50	81.93	32.802	CC
SLB 16-9-12H - Wellbore #1 - Design #1 8Aug18 mnH	500.00	500.00	84.51	81.34	26.636	ES
SLB 16-9-12H - Wellbore #1 - Design #1 8Aug18 mnH	700.00	694.50	97.43	92.88	21.380	SF
SLB 16-9-1H - Wellbore #1 - Design #1 8Aug18 mnH	1,204.34	1,190.27	59.19	51.05	7.270	CC, ES
SLB 16-9-1H - Wellbore #1 - Design #1 8Aug18 mnH	7,950.00	10,179.56	278.92	183.77	2.931	SF
SLB 16-9-2H - Wellbore #1 - Design #1 8Aug18 mnH	1,165.17	1,155.77	45.78	37.91	5.813	CC, ES
SLB 16-9-2H - Wellbore #1 - Design #1 8Aug18 mnH	1,200.00	1,189.17	46.47	38.36	5.728	SF
SLB 16-9-3H - Wellbore #1 - Design #1 8Aug18 mnH	1,106.83	1,101.59	28.59	21.13	3.833	CC, ES, SF
SLB 16-9-4H - Wellbore #1 - Design #1 8Aug18 mnH	1,057.17	1,054.91	13.90	6.78	1.954	CC, ES, SF
SLB 16-9-5H - Wellbore #1 - Design #1 8Aug18 mnH	980.18	980.39	1.63	-4.93	0.248	Level 1, CC, ES, SF
SLB 16-9-6H - Wellbore #1 - Design #1 8Aug18 mnH	899.72	901.73	20.75	14.77	3.469	CC
SLB 16-9-6H - Wellbore #1 - Design #1 8Aug18 mnH	900.00	902.00	20.75	14.76	3.467	ES, SF
SLB 16-9-7H - Wellbore #1 - Design #1 9Aug18 mnH	787.33	789.28	33.66	28.48	6.501	CC
SLB 16-9-7H - Wellbore #1 - Design #1 9Aug18 mnH	800.00	801.85	33.73	28.46	6.404	ES, SF
SLB 16-9-8H - Wellbore #1 - Design #1 9Aug18 mnH	500.00	500.00	42.18	39.00	13.295	CC
SLB 16-9-8H - Wellbore #1 - Design #1 9Aug18 mnH	600.00	600.42	42.31	38.44	10.931	ES
SLB 16-9-8H - Wellbore #1 - Design #1 9Aug18 mnH	700.00	700.20	44.18	39.62	9.689	SF
SLB 16-9-9H - Wellbore #1 - Design #1 9Aug18 mnH	500.00	500.00	49.37	46.20	15.561	CC, ES
SLB 16-9-9H - Wellbore #1 - Design #1 9Aug18 mnH	700.00	698.04	56.80	52.25	12.462	SF
SLB 17-18-10H - Wellbore #1 - Design #1 10Aug18 mnH	500.00	500.00	44.17	41.00	13.924	CC
SLB 17-18-10H - Wellbore #1 - Design #1 10Aug18 mnH	800.00	804.36	45.02	39.72	8.492	ES
SLB 17-18-10H - Wellbore #1 - Design #1 10Aug18 mnH	18,309.43	18,080.69	1,263.35	601.53	1.909	SF
SLB 17-18-11H - Wellbore #1 - Design #1 10Aug18 mnH	500.00	500.00	59.60	56.43	18.787	CC
SLB 17-18-11H - Wellbore #1 - Design #1 10Aug18 mnH	700.00	703.68	60.40	55.81	13.151	ES
SLB 17-18-11H - Wellbore #1 - Design #1 10Aug18 mnH	18,309.43	17,933.75	1,677.87	1,014.71	2.530	SF
SLB 17-18-12H - Wellbore #1 - Design #1 10Aug18 mnH	500.00	499.00	72.84	69.67	22.974	CC
SLB 17-18-12H - Wellbore #1 - Design #1 10Aug18 mnH	600.00	601.08	73.17	69.29	18.842	ES
SLB 17-18-12H - Wellbore #1 - Design #1 10Aug18 mnH	18,309.43	17,994.41	2,102.55	1,440.29	3.175	SF
SLB 17-18-1H - Wellbore #1 - Design #1 11Aug18 mnH	1,094.20	1,075.04	89.64	82.32	12.255	CC
SLB 17-18-1H - Wellbore #1 - Design #1 11Aug18 mnH	1,200.00	1,177.25	90.09	82.02	11.160	ES
SLB 17-18-1H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	19,449.19	2,604.95	1,939.82	3.916	SF
SLB 17-18-2H - Wellbore #1 - Design #1 11Aug18 mnH	1,031.96	1,017.65	73.10	66.21	10.614	CC
SLB 17-18-2H - Wellbore #1 - Design #1 11Aug18 mnH	1,100.00	1,083.84	73.24	65.88	9.943	ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



**Microsoft**  
Anticollision Summary Report

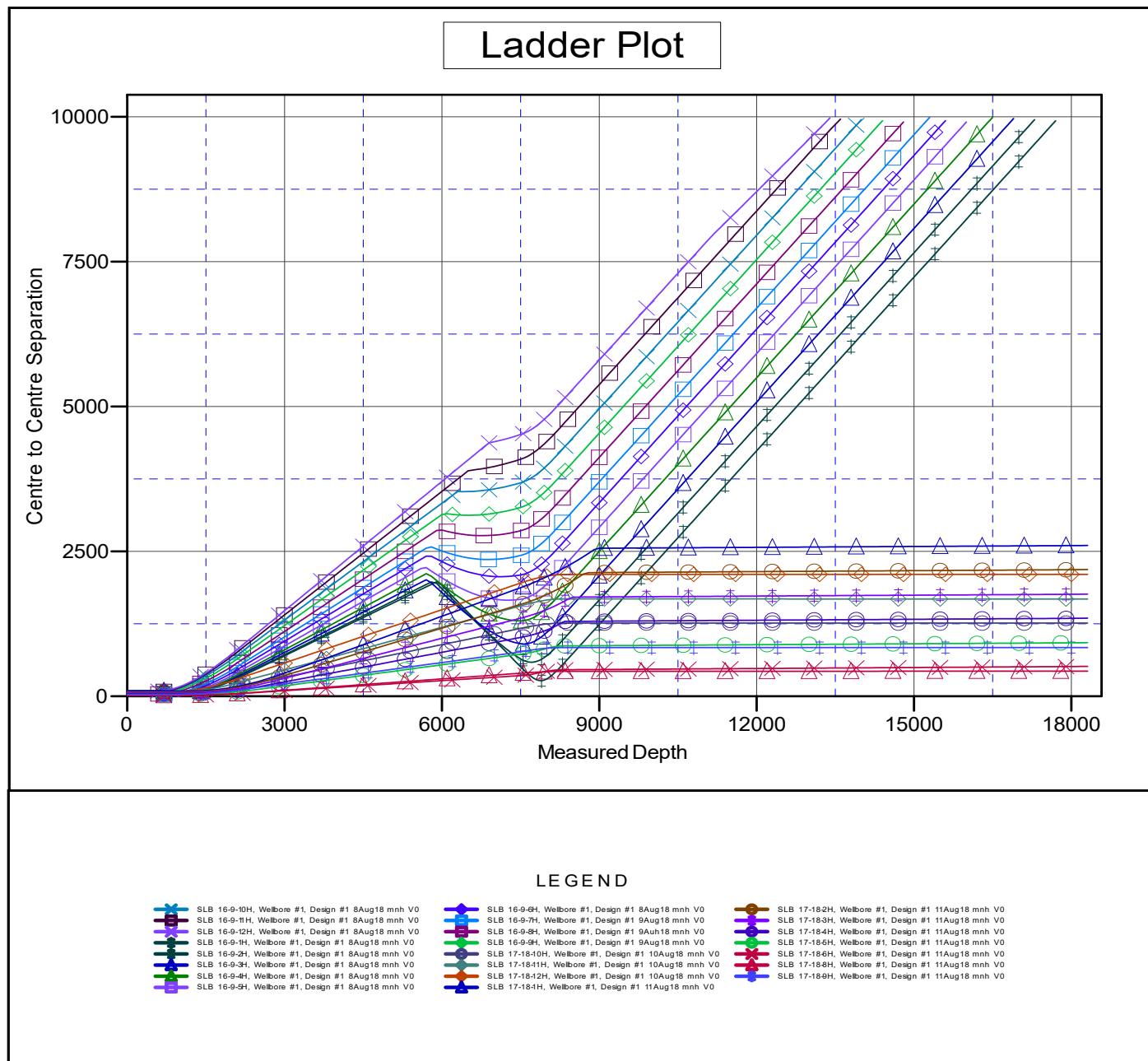
<b>Company:</b>	Edge Energy, LLC	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Reference Site:</b>	SLB 16	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 11Aug18 mnH	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SLB 16						
SLB 17-18-2H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	19,285.61	2,188.26	1,524.16	3.295	SF
SLB 17-18-3H - Wellbore #1 - Design #1 11Aug18 mnH	1,006.23	995.10	58.06	51.35	8.651	CC
SLB 17-18-3H - Wellbore #1 - Design #1 11Aug18 mnH	1,100.00	1,086.86	58.30	50.93	7.905	ES
SLB 17-18-3H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,994.56	1,763.35	1,097.49	2.648	SF
SLB 17-18-4H - Wellbore #1 - Design #1 11Aug18 mnH	925.55	918.82	45.77	39.61	7.434	CC
SLB 17-18-4H - Wellbore #1 - Design #1 11Aug18 mnH	1,100.00	1,090.36	46.35	38.96	6.270	ES
SLB 17-18-4H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,870.32	1,348.09	684.76	2.032	SF
SLB 17-18-5H - Wellbore #1 - Design #1 11Aug18 mnH	921.78	917.32	30.45	24.31	4.963	CC
SLB 17-18-5H - Wellbore #1 - Design #1 11Aug18 mnH	1,100.00	1,093.57	30.93	23.52	4.178	ES
SLB 17-18-5H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,610.96	925.39	259.03	1.389	Level 3, SF
SLB 17-18-6H - Wellbore #1 - Design #1 11Aug18 mnH	500.00	500.00	15.58	12.40	4.910	CC
SLB 17-18-6H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,535.46	516.19	-136.51	0.791	Level 1, ES, SF
SLB 17-18-8H - Wellbore #1 - Design #1 11Aug18 mnH	724.81	725.85	13.25	8.48	2.781	CC
SLB 17-18-8H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,266.49	433.85	-215.40	0.668	Level 1, ES, SF
SLB 17-18-9H - Wellbore #1 - Design #1 11Aug18 mnH	500.00	500.00	28.71	25.54	9.051	CC
SLB 17-18-9H - Wellbore #1 - Design #1 11Aug18 mnH	900.00	903.81	29.95	23.94	4.978	ES
SLB 17-18-9H - Wellbore #1 - Design #1 11Aug18 mnH	18,309.43	18,070.40	840.74	177.35	1.267	Level 3, SF

<b>Company:</b>	Edge Energy, LLC	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Reference Site:</b>	SLB 16	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 11Aug18 mnH	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5266.00usft (Original Well E  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000

Coordinates are relative to: SLB 17-18-7H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.39°



<b>Company:</b>	Edge Energy, LLC	<b>Local Co-ordinate Reference:</b>	Well SLB 17-18-7H
<b>Project:</b>	Sec. 16-T8N-R67W, Weld County CO	<b>TVD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Reference Site:</b>	SLB 16	<b>MD Reference:</b>	WELL @ 5266.00usft (Original Well Elev)
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	SLB 17-18-7H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Wellbore #1	<b>Database:</b>	EDM 5000.14 Single User Db
<b>Reference Design:</b>	Design #1 11Aug18 mnH	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5266.00usft (Original Well E

Offset Depths are relative to Offset Datum

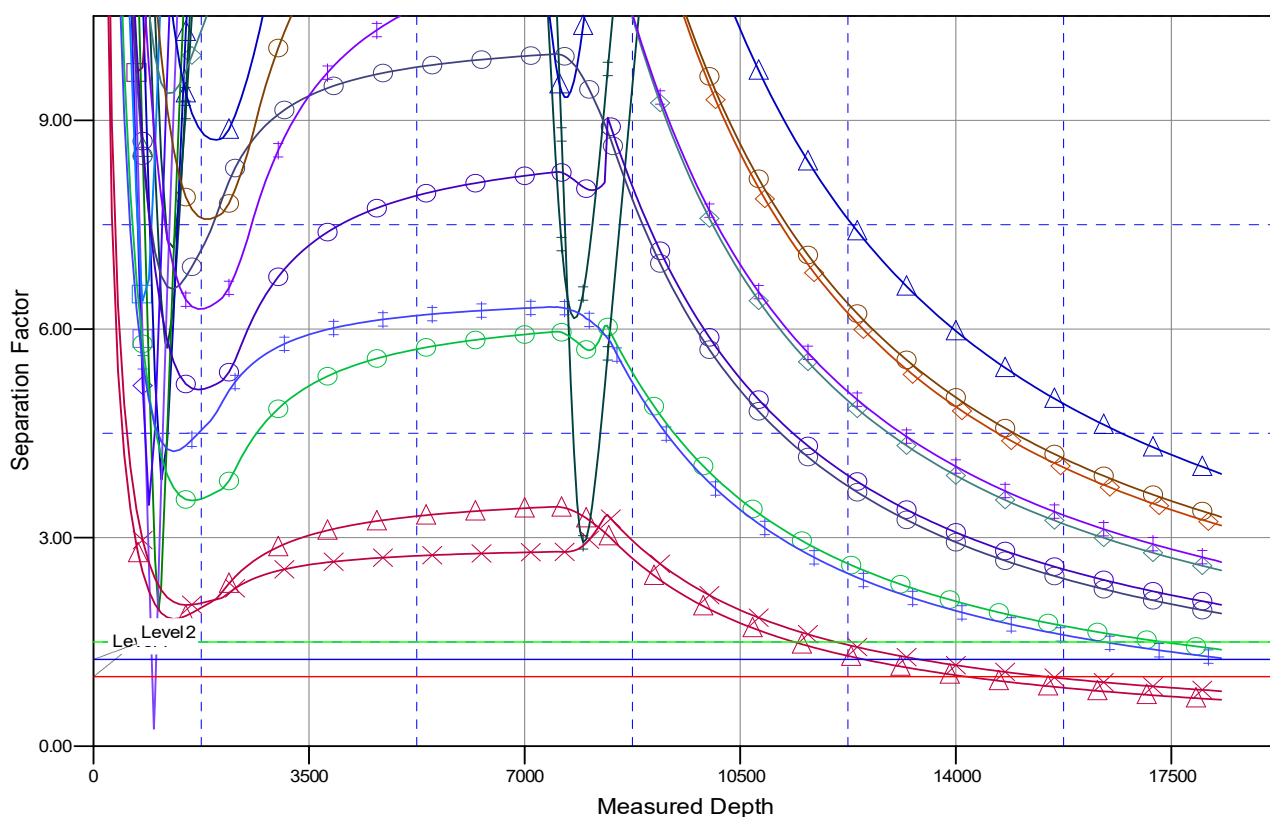
Central Meridian is -105.500000

Coordinates are relative to: SLB 17-18-7H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.39°

## Separation Factor Plot



### LEGEND

SLB 16-9-10H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 16-9-9H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 17-18-2H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-11H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 16-9-7H, Wellbore #1, Design #1 9Aug18 mnH V0	SLB 17-18-3H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-12H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 16-9-8H, Wellbore #1, Design #1 9Aug18 mnH V0	SLB 17-18-4H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-1H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 16-9-9H, Wellbore #1, Design #1 9Aug18 mnH V0	SLB 17-18-5H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-2H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 17-18-10H, Wellbore #1, Design #1 10Aug18 mnH V0	SLB 17-18-6H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-3H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 17-18-11H, Wellbore #1, Design #1 10Aug18 mnH V0	SLB 17-18-7H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-4H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 17-18-12H, Wellbore #1, Design #1 10Aug18 mnH V0	SLB 17-18-8H, Wellbore #1, Design #1 11Aug18 mnH V0
SLB 16-9-5H, Wellbore #1, Design #1 8Aug18 mnH V0	SLB 17-18-1H, Wellbore #1, Design #1 11Aug18 mnH V0	SLB 17-18-9H, Wellbore #1, Design #1 11Aug18 mnH V0