



# Edge Energy, LLC

Well Name:

**GASPERICH 28-27-12H**

Project Name:

**Sec. 32-T8N-R65W Weld County CO**

Pad Name:

**Gasperich 32**

## ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
805.50	6.11	345.80	804.92	15.78	-3.99	-3.40	16.27	Hold 6.11 Inc, 345.80 Az
6724.06	6.11	345.80	6689.86	626.50	-158.50	-135.07	646.24	KOP 8/100
7871.33	90.11	91.66	7423.00	681.30	560.71	585.69	1378.26	EP 90.11 Inc, 91.66 Az
17838.07	90.11	91.66	7403.00	392.11	10523.24	10530.54	11343.98	TD at 17838.07

## Geodetic Datum:

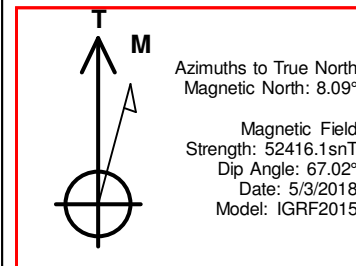
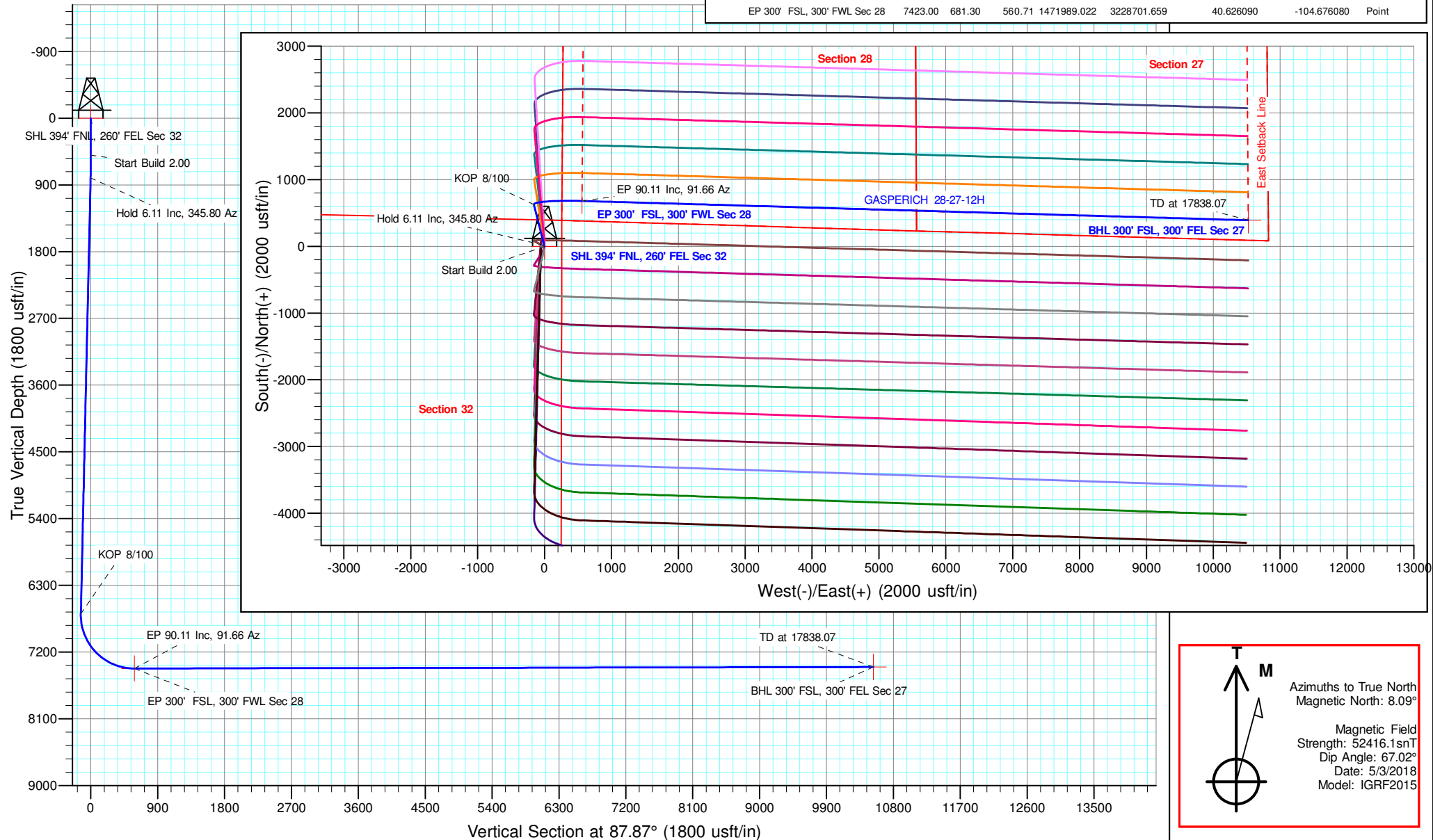
North American Datum 1983  
US State Plane 1983 Colorado Northern Zone

## Elevation:

Ground Elevation: 4947.00  
KB Elevation: WELL @ 4962.00usft (Original Well Elev)

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL 394' FNL, 260' FEL Sec 32	0.00	0.00	0.00	1471302.558	3228147.284	40.624220	-104.678100	Point
BHL 300' FSL, 300' FEL Sec 27	7403.00	392.09	10523.24	1471792.161	3238666.436	40.625290	-104.640190	Point
EP 300' FSL, 300' FWL Sec 28	7423.00	681.30	560.71	1471989.022	3228701.659	40.626090	-104.676080	Point





## **Edge Energy, LLC**

**Sec. 32-T8N-R65W Weld County CO**

**Gasperich 32**

**GASPERICH 28-27-12H**

**Wellbore #1**

**Plan: Design #1 3May18 mnh**

## **Standard Planning Report - Geographic**

**30 June, 2018**



Microsoft  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GASPERICH 28-27-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T8N-R65W Weld County CO	<b>MD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Site:</b>	Gasperich 32	<b>North Reference:</b>	True
<b>Well:</b>	GASPERICH 28-27-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May18 mnH		

<b>Project</b>	Sec. 32-T8N-R65W 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		Gasperich 32				
Site Position:		Northing:	1,471,378.614 usft	Latitude:	40.624430	
From:	Lat/Long	Easting:	3,228,096.610 usft	Longitude:	-104.678280	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well	GASPERICH 28-27-12H					
Well Position	+N/-S	0.00 usft	Northing:	1,471,302.558 usft	Latitude:	40.624220
	+E/-W	0.00 usft	Easting:	3,228,147.283 usft	Longitude:	-104.678100
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,947.00 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	5/3/2018	8.09	67.02	52,416.11387573

<b>Design</b>	Design #1 3May18 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	87.87

<b>Plan Survey Tool Program</b>	<b>Date</b>	6/30/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	17,837.65 Design #1 3May18 mnH (Wellbor	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	
805.50	6.11	345.80	804.92	15.78	-3.99	2.00	2.00	0.00	345.80	
6,724.06	6.11	345.80	6,689.86	626.50	-158.50	0.00	0.00	0.00	0.00	
7,871.33	90.11	91.66	7,423.00	681.30	560.71	8.00	7.32	9.23	105.76	EP 300' FSL, 300' FV
17,838.07	90.11	91.66	7,403.00	392.09	10,523.24	0.00	0.00	0.00	0.00	BHL 300' FSL, 300' FI



**Microsoft**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GASPERICH 28-27-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T8N-R65W Weld County CO	<b>MD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Site:</b>	Gasperich 32	<b>North Reference:</b>	True
<b>Well:</b>	GASPERICH 28-27-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May18 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	1,471,302.558	3,228,147.283	40.624220	-104.678100
200.00	0.00	0.00	200.00	0.00	0.00	1,471,302.558	3,228,147.283	40.624220	-104.678100
400.00	0.00	0.00	400.00	0.00	0.00	1,471,302.558	3,228,147.283	40.624220	-104.678100
500.00	0.00	0.00	500.00	0.00	0.00	1,471,302.558	3,228,147.283	40.624220	-104.678100
<b>Start Build 2.00</b>									
600.00	2.00	345.80	599.98	1.69	-0.43	1,471,304.246	3,228,146.840	40.624225	-104.678102
800.00	6.00	345.80	799.45	15.21	-3.85	1,471,317.736	3,228,143.293	40.624262	-104.678114
805.50	6.11	345.80	804.92	15.78	-3.99	1,471,318.297	3,228,143.146	40.624263	-104.678115
<b>Hold 6.11 Inc, 345.80 Az</b>									
1,000.00	6.11	345.80	998.32	35.85	-9.07	1,471,338.319	3,228,137.882	40.624318	-104.678133
1,200.00	6.11	345.80	1,197.18	56.48	-14.29	1,471,358.907	3,228,132.470	40.624375	-104.678152
1,400.00	6.11	345.80	1,396.04	77.12	-19.51	1,471,379.495	3,228,127.058	40.624432	-104.678171
1,600.00	6.11	345.80	1,594.91	97.76	-24.73	1,471,400.084	3,228,121.646	40.624488	-104.678189
1,800.00	6.11	345.80	1,793.77	118.40	-29.95	1,471,420.672	3,228,116.233	40.624545	-104.678208
2,000.00	6.11	345.80	1,992.64	139.03	-35.18	1,471,441.260	3,228,110.821	40.624602	-104.678227
2,200.00	6.11	345.80	2,191.50	159.67	-40.40	1,471,461.848	3,228,105.409	40.624658	-104.678246
2,400.00	6.11	345.80	2,390.36	180.31	-45.62	1,471,482.436	3,228,099.996	40.624715	-104.678265
2,600.00	6.11	345.80	2,589.23	200.95	-50.84	1,471,503.025	3,228,094.584	40.624772	-104.678283
2,800.00	6.11	345.80	2,788.09	221.58	-56.06	1,471,523.613	3,228,089.172	40.624828	-104.678302
3,000.00	6.11	345.80	2,986.96	242.22	-61.28	1,471,544.201	3,228,083.760	40.624885	-104.678321
3,200.00	6.11	345.80	3,185.82	262.86	-66.50	1,471,564.789	3,228,078.347	40.624942	-104.678340
3,400.00	6.11	345.80	3,384.68	283.50	-71.72	1,471,585.378	3,228,072.935	40.624998	-104.678359
3,600.00	6.11	345.80	3,583.55	304.13	-76.94	1,471,605.966	3,228,067.523	40.625055	-104.678377
3,800.00	6.11	345.80	3,782.41	324.77	-82.17	1,471,626.554	3,228,062.111	40.625111	-104.678396
4,000.00	6.11	345.80	3,981.27	345.41	-87.39	1,471,647.142	3,228,056.698	40.625168	-104.678415
4,200.00	6.11	345.80	4,180.14	366.05	-92.61	1,471,667.730	3,228,051.286	40.625225	-104.678434
4,400.00	6.11	345.80	4,379.00	386.68	-97.83	1,471,688.319	3,228,045.874	40.625281	-104.678453
4,600.00	6.11	345.80	4,577.87	407.32	-103.05	1,471,708.907	3,228,040.461	40.625338	-104.678472
4,800.00	6.11	345.80	4,776.73	427.96	-108.27	1,471,729.495	3,228,035.049	40.625395	-104.678490
5,000.00	6.11	345.80	4,975.59	448.60	-113.49	1,471,750.083	3,228,029.637	40.625451	-104.678509
5,200.00	6.11	345.80	5,174.46	469.23	-118.71	1,471,770.672	3,228,024.225	40.625508	-104.678528
5,400.00	6.11	345.80	5,373.32	489.87	-123.94	1,471,791.260	3,228,018.812	40.625565	-104.678547
5,600.00	6.11	345.80	5,572.19	510.51	-129.16	1,471,811.848	3,228,013.400	40.625621	-104.678566
5,800.00	6.11	345.80	5,771.05	531.15	-134.38	1,471,832.436	3,228,007.988	40.625678	-104.678584
6,000.00	6.11	345.80	5,969.91	551.78	-139.60	1,471,853.024	3,228,002.576	40.625735	-104.678603
6,200.00	6.11	345.80	6,168.78	572.42	-144.82	1,471,873.613	3,227,997.163	40.625791	-104.678622
6,400.00	6.11	345.80	6,367.64	593.06	-150.04	1,471,894.201	3,227,991.751	40.625848	-104.678641
6,600.00	6.11	345.80	6,566.50	613.70	-155.26	1,471,914.789	3,227,986.339	40.625905	-104.678660
6,724.06	6.11	345.80	6,689.86	626.50	-158.50	1,471,927.560	3,227,982.981	40.625940	-104.678671
<b>KOP 8/100</b>									
6,800.00	7.34	38.62	6,765.34	634.22	-156.46	1,471,935.296	3,227,984.950	40.625961	-104.678664
7,000.00	21.20	76.26	6,959.01	652.92	-113.07	1,471,954.399	3,228,028.171	40.626012	-104.678508
7,200.00	36.82	83.74	7,133.43	668.14	-17.74	1,471,970.503	3,228,123.348	40.626054	-104.678164
7,400.00	52.64	87.14	7,275.09	678.70	122.12	1,471,982.361	3,228,263.108	40.626083	-104.677660
7,600.00	68.53	89.33	7,373.01	683.79	295.69	1,471,989.055	3,228,436.622	40.626097	-104.677035
7,800.00	84.44	91.08	7,419.61	683.00	489.52	1,471,990.065	3,228,630.447	40.626095	-104.676337
7,871.33	90.11	91.66	7,423.00	681.30	560.71	1,471,989.022	3,228,701.659	40.626090	-104.676080
<b>EP 90.11 Inc, 91.66 Az</b>									
8,000.00	90.11	91.66	7,422.74	677.56	689.33	1,471,986.481	3,228,830.304	40.626080	-104.675617
8,200.00	90.11	91.66	7,422.34	671.76	889.25	1,471,982.530	3,229,030.265	40.626064	-104.674897
8,400.00	90.11	91.66	7,421.94	665.96	1,089.16	1,471,978.580	3,229,230.226	40.626048	-104.674177
8,600.00	90.11	91.66	7,421.54	660.15	1,289.08	1,471,974.629	3,229,430.186	40.626032	-104.673456
8,800.00	90.11	91.66	7,421.14	654.35	1,488.99	1,471,970.679	3,229,630.147	40.626016	-104.672736
9,000.00	90.11	91.66	7,420.74	648.55	1,688.91	1,471,966.729	3,229,830.107	40.626000	-104.672016



**Microsoft**  
Planning Report - Geographic

<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GASPERICH 28-27-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T8N-R65W Weld County CO	<b>MD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Site:</b>	Gasperich 32	<b>North Reference:</b>	True
<b>Well:</b>	GASPERICH 28-27-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May18 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
9,200.00	90.11	91.66	7,420.33	642.74	1,888.82	1,471,962.778	3,230,030.068	40.625984	-104.671296
9,400.00	90.11	91.66	7,419.93	636.94	2,088.74	1,471,958.828	3,230,230.028	40.625968	-104.670576
9,600.00	90.11	91.66	7,419.53	631.13	2,288.65	1,471,954.878	3,230,429.989	40.625952	-104.669855
9,800.00	90.11	91.66	7,419.13	625.33	2,488.57	1,471,950.927	3,230,629.950	40.625936	-104.669135
10,000.00	90.11	91.66	7,418.73	619.53	2,688.48	1,471,946.977	3,230,829.910	40.625920	-104.668415
10,200.00	90.11	91.66	7,418.33	613.72	2,888.40	1,471,943.027	3,231,029.871	40.625904	-104.667695
10,400.00	90.11	91.66	7,417.93	607.92	3,088.32	1,471,939.076	3,231,229.831	40.625888	-104.666975
10,600.00	90.11	91.66	7,417.52	602.12	3,288.23	1,471,935.126	3,231,429.792	40.625872	-104.666254
10,800.00	90.11	91.66	7,417.12	596.31	3,488.15	1,471,931.176	3,231,629.752	40.625856	-104.665534
11,000.00	90.11	91.66	7,416.72	590.51	3,688.06	1,471,927.225	3,231,829.714	40.625840	-104.664814
11,200.00	90.11	91.66	7,416.32	584.71	3,887.98	1,471,923.275	3,232,029.675	40.625824	-104.664094
11,400.00	90.11	91.66	7,415.92	578.90	4,087.89	1,471,919.325	3,232,229.635	40.625808	-104.663374
11,600.00	90.11	91.66	7,415.52	573.10	4,287.81	1,471,915.374	3,232,429.596	40.625792	-104.662653
11,800.00	90.11	91.66	7,415.12	567.30	4,487.72	1,471,911.424	3,232,629.556	40.625776	-104.661933
12,000.00	90.11	91.66	7,414.72	561.49	4,687.64	1,471,907.474	3,232,829.517	40.625760	-104.661213
12,200.00	90.11	91.66	7,414.31	555.69	4,887.55	1,471,903.523	3,233,029.477	40.625744	-104.660493
12,400.00	90.11	91.66	7,413.91	549.89	5,087.47	1,471,899.573	3,233,229.438	40.625728	-104.659773
12,600.00	90.11	91.66	7,413.51	544.08	5,287.38	1,471,895.623	3,233,429.399	40.625712	-104.659052
12,800.00	90.11	91.66	7,413.11	538.28	5,487.30	1,471,891.672	3,233,629.359	40.625696	-104.658332
13,000.00	90.11	91.66	7,412.71	532.47	5,687.22	1,471,887.722	3,233,829.320	40.625680	-104.657612
13,200.00	90.11	91.66	7,412.31	526.67	5,887.13	1,471,883.771	3,234,029.280	40.625664	-104.656892
13,400.00	90.11	91.66	7,411.91	520.87	6,087.05	1,471,879.821	3,234,229.241	40.625648	-104.656172
13,600.00	90.11	91.66	7,411.50	515.06	6,286.96	1,471,875.871	3,234,429.201	40.625632	-104.655451
13,800.00	90.11	91.66	7,411.10	509.26	6,486.88	1,471,871.920	3,234,629.162	40.625616	-104.654731
14,000.00	90.11	91.66	7,410.70	503.46	6,686.79	1,471,867.970	3,234,829.123	40.625599	-104.654011
14,200.00	90.11	91.66	7,410.30	497.65	6,886.71	1,471,864.020	3,235,029.083	40.625583	-104.653291
14,400.00	90.11	91.66	7,409.90	491.85	7,086.62	1,471,860.069	3,235,229.044	40.625567	-104.652571
14,600.00	90.11	91.66	7,409.50	486.05	7,286.54	1,471,856.119	3,235,429.004	40.625551	-104.651850
14,800.00	90.11	91.66	7,409.10	480.24	7,486.45	1,471,852.169	3,235,628.965	40.625535	-104.651130
15,000.00	90.11	91.66	7,408.70	474.44	7,686.37	1,471,848.218	3,235,828.925	40.625519	-104.650410
15,200.00	90.11	91.66	7,408.29	468.64	7,886.28	1,471,844.268	3,236,028.886	40.625503	-104.649690
15,400.00	90.11	91.66	7,407.89	462.83	8,086.20	1,471,840.318	3,236,228.847	40.625487	-104.648970
15,600.00	90.11	91.66	7,407.49	457.03	8,286.12	1,471,836.367	3,236,428.807	40.625471	-104.648249
15,800.00	90.11	91.66	7,407.09	451.23	8,486.03	1,471,832.417	3,236,628.768	40.625455	-104.647529
16,000.00	90.11	91.66	7,406.69	445.42	8,685.95	1,471,828.467	3,236,828.728	40.625438	-104.646809
16,200.00	90.11	91.66	7,406.29	439.62	8,885.86	1,471,824.516	3,237,028.689	40.625422	-104.646089
16,400.00	90.11	91.66	7,405.89	433.81	9,085.78	1,471,820.566	3,237,228.649	40.625406	-104.645369
16,600.00	90.11	91.66	7,405.48	428.01	9,285.69	1,471,816.616	3,237,428.610	40.625390	-104.644648
16,800.00	90.11	91.66	7,405.08	422.21	9,485.61	1,471,812.665	3,237,628.571	40.625374	-104.643928
17,000.00	90.11	91.66	7,404.68	416.40	9,685.52	1,471,808.715	3,237,828.531	40.625358	-104.643208
17,200.00	90.11	91.66	7,404.28	410.60	9,885.44	1,471,804.765	3,238,028.492	40.625342	-104.642488
17,400.00	90.11	91.66	7,403.88	404.80	10,085.35	1,471,800.814	3,238,228.452	40.625325	-104.641768
17,600.00	90.11	91.66	7,403.48	398.99	10,285.27	1,471,796.864	3,238,428.413	40.625309	-104.641048
17,800.00	90.11	91.66	7,403.08	393.19	10,485.18	1,471,792.914	3,238,628.373	40.625293	-104.640327
17,838.07	90.11	91.66	7,403.00	392.09	10,523.24	1,471,792.162	3,238,666.437	40.625290	-104.640190
TD at 17838.07									



<b>Database:</b>	EDM 5000.14 Single User Db	<b>Local Co-ordinate Reference:</b>	Well GASPERICH 28-27-12H
<b>Company:</b>	Edge Energy, LLC	<b>TVD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Project:</b>	Sec. 32-T8N-R65W Weld County CO	<b>MD Reference:</b>	WELL @ 4962.00usft (Original Well Elev)
<b>Site:</b>	Gasperich 32	<b>North Reference:</b>	True
<b>Well:</b>	GASPERICH 28-27-12H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1 3May18 mnH		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL 394' FNL, 260' FEL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,471,302.558	3,228,147.283	40.624220	-104.678100
BHL 300' FSL, 300' FEL - plan hits target center - Point	0.00	0.00	7,403.00	392.09	10,523.24	1,471,792.162	3,238,666.437	40.625290	-104.640190
EP 300' FSL, 300' FWL - plan hits target center - Point	0.00	0.00	7,423.00	681.30	560.71	1,471,989.022	3,228,701.659	40.626090	-104.676080

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
805.50	804.92	15.78	-3.99	Hold 6.11 Inc, 345.80 Az
6,724.06	6,689.86	626.50	-158.50	KOP 8/100
7,871.33	7,423.00	681.30	560.71	EP 90.11 Inc, 91.66 Az
17,838.07	7,403.00	392.09	10,523.24	TD at 17838.07