

Catamount Energy Partners

**San Juan Basin
La Plata County CO
Carpenter 32-6-3 #1**

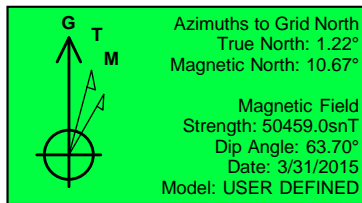
Original Hole

Design: As Drilled

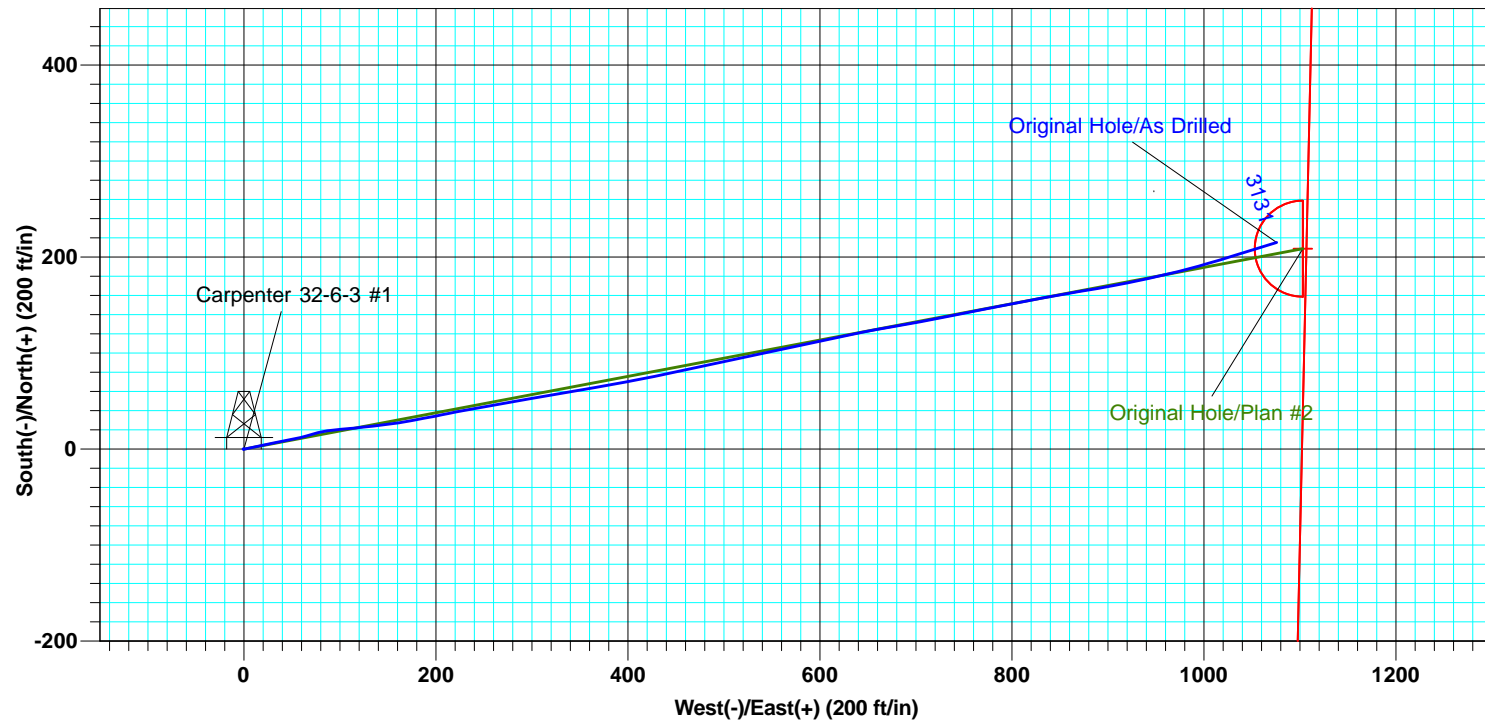
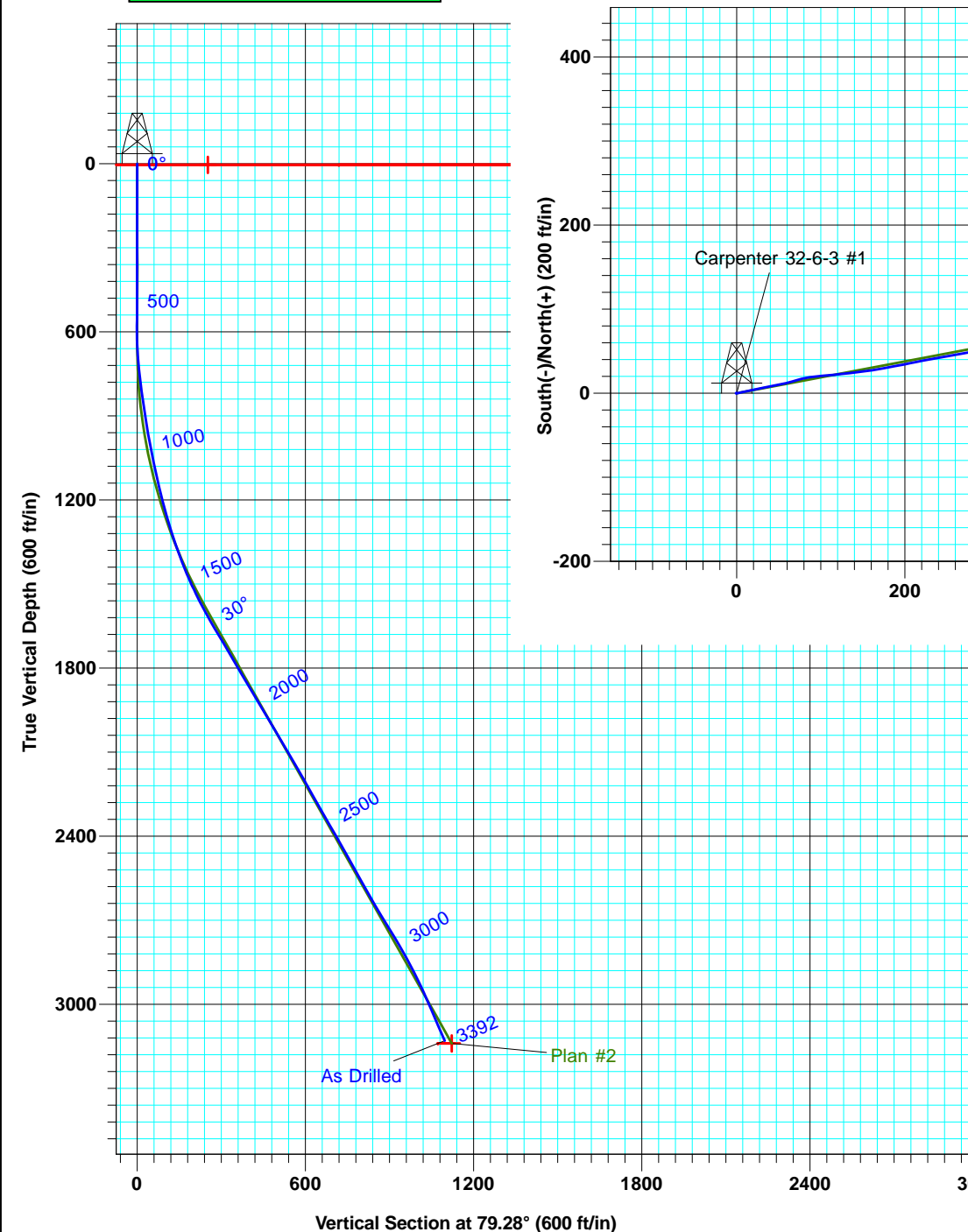
Standard Survey Report

07 April, 2015





Project: San Juan Basin
 Site: La Plata County CO
 Well: Carpenter 32-6-3 #1
 Wellbore: Original Hole
 Design: As Drilled



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Latitude	Longitude
SEC 3-T32N-R6W East 1/2 DW4.00	2238.92	-167.04	37° 3' 6.724 N	107° 29' 7.459 W	
Carpenter 32-6-3 #1 BHL	3140.00	208.76	1103.00	37° 2' 46.923 N	107° 28' 51.264 W

WELL DETAILS Carpenter 32-6-3 #1					
GL 6372' & RKB 16' @ 6388.00ft (D&J 1)					
Ground Level: 6372.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1144179.41	2420780.01	37° 2' 44.628 N	107° 29' 4.812 W

SITE DETAILS: La Plata County CO
 Site Centre Northing: 760788.19
 Easting: 2556100.64
 Positional Uncertainty: 0.00
 Convergence: -0.92
 Local North: Grid

PROJECT DETAILS: San Juan Basin
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Southern Zone
 System Datum: Mean Sea Level

ALL AZIMUTHS MUST BE CORRECTED TO GRID NORTH
 To convert Magnetic North to Grid, Add 10.67°
 To convert True North to Grid, Add 1.22°

Survey Report



Company:	Catamount Energy Partners	Local Co-ordinate Reference:	Well Carpenter 32-6-3 #1
Project:	San Juan Basin	TVD Reference:	GL 6372' & RKB 16' @ 6388.00ft (D&J 1)
Site:	La Plata County CO	MD Reference:	GL 6372' & RKB 16' @ 6388.00ft (D&J 1)
Well:	Carpenter 32-6-3 #1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Grand Junction District

Project	San Juan Basin, Southern Colorado, Fruitland Coal HZ		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Southern Zone		Using geodetic scale factor

Site	La Plata County CO		
Site Position:		Northing:	760,788.19 usft
From:	Lat/Long	Easting:	2,556,100.64 usft
Position Uncertainty:	0.00 ft	Slot Radius:	6.125 in
		Latitude:	36° 0' 0.000 N
		Longitude:	107° 0' 0.000 W
		Grid Convergence:	-0.92 °

Well	Carpenter 32-6-3 #1, FC Pilot Hole		
Well Position	+N-S	0.00 ft	Northing: 1,144,179.41 usft
	+E-W	0.00 ft	Easting: 2,420,780.02 usft
Position Uncertainty		1.00 ft	Wellhead Elevation: 0.00 ft
			Ground Level: 6,372.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	3/31/2015	9.45	63.70	50,459

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)	
	0.00	0.00	0.00	79.28	

Survey Program	Date 4/7/2015			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
494.00	3,392.01	SDI MWD (Original Hole)	MWD SDI	MWD - Standard ver 1.0.1

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.42	0.00	277.09	4.42	0.00	0.00	0.00	0.00	0.00	0.00
SEC 3-T32N-R6W East 1/2 DW									
494.00	0.11	277.09	494.00	0.06	-0.47	-0.45	0.02	0.02	0.00
524.00	0.17	315.60	524.00	0.09	-0.53	-0.50	0.36	0.20	128.37
553.00	0.22	300.63	553.00	0.15	-0.61	-0.57	0.24	0.17	-51.62
585.00	0.30	280.22	585.00	0.20	-0.74	-0.69	0.38	0.25	-63.78
615.00	0.63	101.97	615.00	0.18	-0.66	-0.61	3.10	1.10	-594.17
646.00	2.16	89.63	645.99	0.15	0.09	0.12	5.00	4.94	-39.81
676.00	3.75	82.73	675.95	0.28	1.63	1.65	5.42	5.30	-23.00
707.00	4.88	80.25	706.86	0.63	3.94	3.98	3.69	3.65	-8.00

Survey Report



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Site:	La Plata County CO	MD Reference:	GL 6372' & RKB 16' @ 6388.00ft (D&J 1)
Well:	Carpenter 32-6-3 #1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
737.00	5.60	77.24	736.74	1.17	6.62	6.72	2.57	2.40	-10.03
769.00	6.81	78.25	768.55	1.90	10.00	10.18	3.80	3.78	3.16
800.00	8.07	76.26	799.29	2.79	13.91	14.19	4.15	4.06	-6.42
831.00	8.33	76.01	829.97	3.85	18.21	18.60	0.85	0.84	-0.81
861.00	8.15	77.98	859.66	4.82	22.40	22.90	1.12	-0.60	6.57
891.00	8.01	79.31	889.36	5.65	26.53	27.12	0.78	-0.47	4.43
922.00	8.87	81.43	920.03	6.40	31.01	31.66	2.95	2.77	6.84
953.00	9.95	79.22	950.61	7.26	36.01	36.73	3.67	3.48	-7.13
984.00	11.04	79.87	981.09	8.28	41.56	42.38	3.54	3.52	2.10
1,015.00	11.04	77.85	1,011.52	9.43	47.39	48.31	1.25	0.00	-6.52
1,046.00	10.99	78.27	1,041.94	10.66	53.18	54.23	0.30	-0.16	1.35
1,078.00	11.52	75.62	1,073.33	12.07	59.26	60.47	2.31	1.66	-8.28
1,109.00	12.57	73.93	1,103.65	13.77	65.50	66.92	3.57	3.39	-5.45
1,141.00	13.18	74.50	1,134.84	15.71	72.36	74.02	1.95	1.91	1.78
1,172.00	13.40	76.84	1,165.01	17.47	79.27	81.13	1.87	0.71	7.55
1,203.00	13.67	80.33	1,195.15	18.91	86.38	88.39	2.77	0.87	11.26
1,235.00	14.65	84.32	1,226.18	19.94	94.13	96.20	4.32	3.06	12.47
1,266.00	16.16	84.70	1,256.07	20.73	102.33	104.40	4.88	4.87	1.23
1,298.00	17.04	85.38	1,286.73	21.52	111.44	113.49	2.82	2.75	2.12
1,330.00	18.25	83.69	1,317.23	22.45	121.09	123.15	4.11	3.78	-5.28
1,360.00	19.15	83.07	1,345.64	23.56	130.64	132.75	3.07	3.00	-2.07
1,392.00	19.75	83.74	1,375.82	24.78	141.23	143.37	2.00	1.87	2.09
1,423.00	20.42	82.89	1,404.93	26.02	151.80	153.99	2.36	2.16	-2.74
1,455.00	21.69	80.71	1,434.79	27.67	163.18	165.48	4.66	3.97	-6.81
1,487.00	22.74	79.32	1,464.42	29.77	175.09	177.57	3.67	3.28	-4.34
1,518.00	23.84	79.29	1,492.89	32.04	187.14	189.83	3.55	3.55	-0.10
1,548.00	25.30	79.29	1,520.17	34.36	199.39	202.30	4.87	4.87	0.00
1,580.00	26.76	78.26	1,548.93	37.10	213.17	216.35	4.78	4.56	-3.22
1,612.00	27.64	79.95	1,577.39	39.86	227.53	230.97	3.66	2.75	5.28
1,644.00	28.68	79.84	1,605.60	42.51	242.40	246.07	3.25	3.25	-0.34
1,674.00	30.18	79.11	1,631.73	45.20	256.89	260.81	5.14	5.00	-2.43
1,704.00	30.65	79.70	1,657.60	47.99	271.82	276.00	1.86	1.57	1.97
1,766.00	30.44	80.57	1,711.00	53.39	302.86	307.50	0.79	-0.34	1.40
1,829.00	30.68	80.05	1,765.25	58.78	334.43	339.53	0.57	0.38	-0.83
1,891.00	30.41	80.43	1,818.64	64.13	365.49	371.04	0.54	-0.44	0.61
1,954.00	30.47	79.22	1,872.96	69.76	396.90	402.95	0.98	0.10	-1.92
2,016.00	30.61	78.85	1,926.36	75.76	427.83	434.46	0.38	0.23	-0.60
2,078.00	30.93	77.56	1,979.63	82.24	458.88	466.17	1.18	0.52	-2.08
2,140.00	30.92	78.24	2,032.82	88.92	490.03	498.02	0.56	-0.02	1.10
2,203.00	30.65	77.34	2,086.94	95.74	521.55	530.25	0.85	-0.43	-1.43
2,265.00	29.90	78.26	2,140.49	102.35	552.10	561.50	1.42	-1.21	1.48
2,328.00	29.69	78.22	2,195.16	108.73	582.74	592.80	0.33	-0.33	-0.06
2,391.00	29.38	78.07	2,249.97	115.11	613.14	623.85	0.51	-0.49	-0.24

Survey Report



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Site:	La Plata County CO	MD Reference:	GL 6372' & RKB 16' @ 6388.00ft (D&J 1)
Well:	Carpenter 32-6-3 #1	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Grand Junction District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,454.00	29.70	78.40	2,304.78	121.44	643.55	654.90	0.57	0.51	0.52
2,518.01	29.44	80.45	2,360.45	127.24	674.59	686.48	1.63	-0.41	3.20
2,581.01	29.95	79.08	2,415.18	132.79	705.30	717.69	1.35	0.81	-2.17
2,642.01	29.99	79.07	2,468.02	138.56	735.22	748.16	0.07	0.07	-0.02
2,704.01	29.08	78.63	2,521.96	144.47	765.20	778.72	1.51	-1.47	-0.71
2,766.01	28.90	79.07	2,576.19	150.28	794.69	808.77	0.45	-0.29	0.71
2,830.01	29.31	79.21	2,632.11	156.15	825.26	839.90	0.65	0.64	0.22
2,892.01	32.08	80.60	2,685.42	161.68	856.42	871.54	4.61	4.47	2.24
2,955.01	31.61	79.80	2,738.94	167.33	889.17	904.78	1.00	-0.75	-1.27
3,018.01	29.90	78.67	2,793.08	173.34	920.82	936.99	2.86	-2.71	-1.79
3,082.01	28.28	77.51	2,849.00	179.76	951.26	968.10	2.68	-2.53	-1.81
3,143.01	26.60	75.59	2,903.14	186.28	978.60	996.17	3.11	-2.75	-3.15
3,206.01	24.45	73.91	2,959.99	193.40	1,004.79	1,023.23	3.60	-3.41	-2.67
3,269.01	23.37	72.24	3,017.58	200.83	1,029.22	1,048.61	2.02	-1.71	-2.65
3,332.01	23.25	72.89	3,075.44	208.30	1,053.00	1,073.37	0.45	-0.19	1.03
3,392.01	23.25	72.89	3,130.57	215.27	1,075.64	1,096.91	0.00	0.00	0.00
Carpenter 32-6-3 #1 BHL									

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEC 3-T32N-R6W Ea	0.00	360.00	4.00	2,238.92	-167.04	1,146,418.42	2,420,612.96	37° 3' 6.724 N	107° 29' 7.459 W
- actual wellpath misses target center by 2245.14ft at 4.00ft MD (4.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			4.00	0.00	0.00	1,146,418.42	2,420,612.96		
Point 2			4.00	-25.63	1,318.24	1,146,392.79	2,421,931.25		
Point 3			4.00	-3,988.42	1,230.61	1,142,429.85	2,421,843.62		
Point 4			4.00	-3,957.95	-84.65	1,142,460.32	2,420,528.31		
Carpenter 32-6-3 #1 E	0.00	0.00	3,140.00	208.76	1,103.00	1,144,388.17	2,421,883.06	37° 2' 46.923 N	107° 28' 51.264 W
- actual wellpath misses target center by 29.66ft at 3392.01ft MD (3130.57 TVD, 215.27 N, 1075.64 E)									
- Circle (radius 50.00)									

Checked By: _____ Approved By: _____ Date: _____