Birmingham Coal & Coke Co., Inc.
Gooden Creek Mine, P-3878, R-8
Roadside Dtich RD-1, Primary Road
No. 26
Sta. 0+00 - 2+14

SCS 6 Hour

10 year, 6 Hour

4.3 Inches

J. David McGehee, PE

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General Information

Storm Information:

Storm Type:	SCS 6 HOUR
Design Storm:	10 yr - 6 hr
Rainfall Depth:	4.300 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Channel	#1	==>	End	0.000	0.000	RD-1

#1
Chan'l

Structure Summary:

	Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	0.300	0.300	0.49	0.04

Structure Detail:

Structure #1 (Riprap Channel)

RD-1

Triangular Riprap Channel Inputs:

Material: Riprap

Left Sideslope Ratio	Right Sideslope Ratio	Slope (%)	Freeboard Depth (ft)	Freeboard % of Depth	Freeboard Mult. x (VxD)
2.0:1	2.0:1	17.0	0.50		

Riprap Channel Results:

Simons/OSM Method - Steep Slope Design

	w/o Freeboard	w/ Freeboard
Design Discharge:	0.49 cfs	
Depth:	0.11 ft	0.61 ft
Top Width:	0.46 ft	2.46 ft
Velocity*:		
X-Section Area:	0.03 sq ft	
Hydraulic Radius:	0.051	
Froude Number*:		
Manning's n*:		
Dmin:	3.00 in	
D50:	9.00 in	
Dmax:	11.25 in	

Velocity and Manning's n calculations may not apply for this method.

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	0.300	0.004	0.000	0.000	70.000	M	0.49	0.038
	Σ	**0.300**						**0.49**	**0.038**

Subwatershed Time of Concentration Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	18.69	40.00	214.00	12.970	0.004
#1	**1**	**Time of Concentration:**					**0.004**

Subwatershed Muskingum Routing Details:

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	17.74	33.00	186.00	12.630	0.004
#1	**1**	**Muskingum K:**					**0.000**