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EPA REGION III
JAN 28 2013
NPDES PERMITS BRANCH
(3WP41)

west virginia department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304-2345
Phone: 304-926-0490
Fax: 304-926-0496

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WATER POLLUTION CONTROL PERMIT

NPDES PERMIT NO.: WV1019805 **ISSUE DATE:** _____

ASSOCIATED PERMITS: S503508(SMA)

EXPIRE DATE: _____

SUBJECT: Surface Mine

SUPERSEDES/ EFFECTIVE DATE: N/A

HEALTH CERTIFICATE:

LOCATION:	Ethel	Boone, Logan	Group C	Upper Guyandotte River
	(City)	**(County)**	**(Hydrologic)**	**(Drainage Basin)**

TO WHOM IT MAY CONCERN:

This is to certify that: ARACOMA COAL COMPANY INC
PO BOX 1120
HOLDEN, WV 25625

is hereby granted a West Virginia NPDES Water Pollution Control Permit to:

open and operate the Piney Branch Surface Mine utilizing area, contour, steep slope, and highwall methods of mining in the Upper Kittanning, Middle Kittanning, Lower Kittanning/5-Block, Clarion, Lower Clarion, Upper Stockton, Middle Stockton, Lower Stockton, Middle Coalburg, Lower Coalburg and all associated splits and riders. The operation will discharge treated and stormwater into unnamed tributaries of/and Pine Fork of Ethel Hollow and unnamed tributaries of/and Ethel Hollow of Dingess Run of the Guyandotte River. This operation is located 1.1 miles northeast of Ethel in Logan County WV and proposes one valley fill.

This permit is subject to the following terms and conditions:

--The effluent limitations, monitoring requirements and other conditions set forth in Section A, B, C and D.

By : _____
Thomas L. Clarke
Director

DRAFT

A. **DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge from Outlet Number(s) listed below:

2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
001	L	37°52'59" 81°53'27"	1080	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Alkalinity, Total	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	Report Only	Report Only	0.50	ML/L*	See Section A of Permit	Grab
				Calcium, Total (as Ca)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Magnesium,Tot (as Mg)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Sodium,Total (as Na)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Potassium, Total (as K)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Chronic Tox-Ceriodaphnia Dubia	1		Conc	Report Only	0.82	1.64	TUc	Quarterly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
002	L	37°52'49" 81°53'07"	1520	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
003	L	37°52'47" 81°53'21"	1520	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
004	L	37°52'57" 81°53'20"	1320	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
005	L	37°53'00" 81°53'42"	1315	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
006	L	37°52'51" 81°53'42"	1280	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.29	2.23	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	0.39	0.68	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
007	L	37°52'49" 81°53'54"	1320	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
008	L	37°52'54" 81°53'56"	1300	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
009	L	37°53'02" 81°54'01"	1330	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
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								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
010	L	37°53'12" 81°54'02"	1320	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
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011	L	37°53'14" 81°54'14"	1320	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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A. **DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge from Outlet Number(s) listed below:

2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
012	L	37°53'22" 81°54'06"	1320	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
013	L	37°53'28" 81°54'01"	1340	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
014	L	37°53'39" 81°53'06"	1400	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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A. **DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge from Outlet Number(s) listed below:

2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
015	L	37°53'45" 81°53'53"	1400	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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A. **DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS**

1. The permittee is authorized to discharge from Outlet Number(s) listed below:

2. **EFFLUENT LIMITATIONS AND MONITORING FREQUENCY:** Outlets should be limited and monitored by the permittee as specified below:

Outlet Number	Effluent Type	Latitude Longitude	Elevation In Feet	EFFLUENT CHARACTERISTICS	Begins	Ends	Quan/ Conc	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
								Min. Daily	Avg. Monthly	Max. Daily	Units	Measurement Freq.	Sample Type
016	L	37°53'42" 81°53'41"	1520	Flow	1		Quan	Report Only	Report Only	Report Only	GPM	Semi-monthly	Estimated
				Specific Conductance	1		Conc	Report Only	Report Only	Report Only	UMHO/CM	Semi-monthly	Grab
				pH	1		Conc	6.00	N/A	9.00	Std Units	Semi-monthly	Grab
				Total Suspended Solids	1		Conc	Report Only	35.00	70.00	MG/L	Semi-monthly	Grab
				Settleable Solids	1		Conc	N/A	N/A	0.50	ML/L*	See Section A of Permit	Grab
				Total Sulfates (as S04)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Selenium, Total Recoverable	1		Conc	Report Only	4.70	8.20	UG/L	Semi-monthly	Grab
				Iron, Total (as Fe)	1		Conc	Report Only	1.42	2.46	MG/L	Semi-monthly	Grab
				Manganese, Total (as Mn)	1		Conc	Report Only	2.00	3.47	MG/L	Semi-monthly	Grab
				Aluminum, Total (as Al)	1		Conc	Report Only	1.31	2.27	MG/L	Semi-monthly	Grab
				Aluminum, Diss. (as Al)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
				Total Dissolved Solids (TDS)	1		Conc	Report Only	Report Only	Report Only	MG/L	Semi-monthly	Grab
		(See 3, 4)											

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A. DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS

* Instantaneous maximum limitation not to be exceeded at any time.

3. COMPLIANCE POINT: Samples taken for compliance with the above monitoring requirements shall be taken at the following locations: Outlet sites

4. ALTERNATE EFFLUENT LIMITATIONS: If alternate effluent limits are chosen, the following monitoring scheme applies:
   (a) Table I Alternate Storm Limitations applies to any discharge or increase in the volume of a discharge caused by precipitation within any 24-hour period.

   (b) Analyze the required parameters, which are determined by effluent type (listed in A.1.) and rainfall event, listed in Table I Alternate Storm Limitations.

   (c) The permittee shall have the burden of proof that the discharge or increase in discharge was caused by the applicable rainfall event. This shall be verified by the use of a rainfall gauge located within three miles of the discharge point and last emptied no more than twenty-four hours prior to the time the sample was taken. Automated rain gauges may also be utilized. The sampling date and amount of rainfall measured by the gauge shall be reported on the Discharge Monitoring Report(DMR).

5. The rainfall gauge shall be located within three miles of the discharge point and last emptied not more than 24 hours prior to the time the sample was taken. Automated rain gauges may also be utilized. The sampling date and amount of rainfall measured for the 24-hour period of the sample being collected shall be reported on the Discharge Monitoring Report(DMR) for each DMR reported.

6. SUBMISSION OF DISCHARGE MONITORING REPORTS (DMRs):
   (a) Permittee shall submit each quarter, according to the enclosed format, a Discharge Monitoring Report (DMR) indicating the values of the constituents listed in Part A, to be in the discharge measured at the specific compliance points. All analyses must be determined by methods required in 40 CFR Part 136.

   (b) The required quarterly reports shall be postmarked no later than twenty (20) days following the end of the reporting period and shall be sent to:

   West Virginia Department of Environmental Protection
   Division of Mining & Reclamation / HPU / NPDES Section
   601 57th Street SE
   Charleston, West Virginia 25304

   (c) Enter reported average and maximum values under Quantity and Concentration in the units specified for each parameter, as appropriate.

   (d) Specify the number of analyzed samples that exceed the allowable permit conditions in the columns labeled N.E. (i.e. number exceeding).

   (e) Specify frequency of analysis of each parameter as number of analyses/specified period (e.g. 3/month is equivalent to 3 analyses performed every calendar month). If continuous enter Cont. The frequency listed on format is the minimum required. Notwithstanding the frequency of sampling/analyses, there must be at least 10 calendars days between two of the sampling/analyses.

   (f) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic means unless otherwise specified in the permit. "No discharge" or "no flow" cannot count as a sample collected for calculating the arithmetic average when reporting the monthly average limit or averaging of measurement for reporting purposes.

7. Any "not detected (ND)" results by the permittee must be "ND" at the method detection limit (MDL) for the test method used for that parameter and must be reported as less than the MDL used. The permittee may not report the result as zero, "ND", or report the result as less than a minimum level (ML), reporting limit (RL), or practical quantitation limit (PQL).

   When averaging values of analytical results for DMR reporting purposes for monthly averages, the permittee should use actual analytical results when these results are greater than or equal to the MDL and should use zero (0) when these results are less than the MDL. If all analytical results are non-detect at the MDL (<MDL), then the permittee should use the actual MDL in the calculation for averaging and report the results as less than the average calculation.

8. In incidences where a specific test method is not defined, the permittee shall utilize an EPA approved method with a method detection limit (MDL) sensitive enough to confirm compliance with the permit effluent limit for that parameter. If a MDL is not sensitive enough to comfirm compliance, the most sensitive approved method must be used. If a more sensitive EPA approved method becomes available, that method shall be used. Should the current and/or new method not be sensitive enough to confirm compliance with the permitted effluent limit, analytical results reported as "not detected" at the MDL of the most sensitive method available will be deemed compliant for purposes of permit compliance. Results shall be reported on the Discharge Monitoring Reports as a numeric value less than the MDL.

TABLE 1
ALTERNATE STORM LIMITATIONS

EFFLUENT TYPES	DRY WEATHER	DCP*	1 YEAR - 24 HOUR	2 YEAR - 24 HOUR	10 YEAR - 24 HOUR
ACID OR FERRUGINOUS CATEGORIES					
a. Discharges from underground workings of underground mines not commingled	TSS pH Iron Flow Manganese WQBEL***		(NO ALTERNATE LIMITATIONS)		
b. Discharges from underground workings of underground mines commingled	TSS pH Iron Flow Manganese WQBEL***				Flow pH WQBEL***
c. Controlled surface mine drainage (except steep slope and mountaintop removal)	TSS pH Iron Flow Manganese WQBEL***				Flow pH WQBEL***
d. Non-controlled surface mine drainage (except steep slope and mountaintop removal)	TSS Iron Flow pH Manganese WQBEL***	SS** pH Iron Flow Manganese WQBEL***		SS** pH Flow WQBEL***	Flow pH WQBEL***
e. Discharges from coal refuse disposal areas	TSS pH Iron Flow Manganese WQBEL***		Flow SS** pH WQBEL***		Flow pH WQBEL***
f. Discharges from steep slope and mountaintop removal areas	TSS Iron Flow pH Manganese WQBEL***	Flow SS** pH WQBEL***			Flow pH WQBEL***
g. Discharges from preparation plants and preparation plant associated areas (excluding coal refuse piles)	TSS Iron Flow pH Manganese WQBEL***	Flow SS** pH WQBEL***			Flow pH WQBEL***
h. Discharges from reclamation areas	Flow SS** pH WQBEL***				Flow pH WQBEL***
ALKALINE CATEGORY					
i. Discharges from underground workings of underground mines not commingled	TSS ph Iron Flow WQBEL***		(NO ALTERNATE LIMITATIONS)		
j. Alkaline Mine Discharges	TSS Iron Flow pH WQBEL***	Flow SS** pH WQBEL***			Flow pH WQBEL***
k. Reclamation areas	Flow SS** pH WQBEL***				Flow pH WQBEL***
WATER QUALITY BASED LIMITS					
l. Water quality based effluent limits	TSS Flow pH WQBEL***	SS** pH Flow WQBEL***			
m. Bathhouse & Sewage	(NO ALTERNATE LIMITATIONS)				

DCP* -- Discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period
SS** -- Settleable Solids
WQBEL*** -- All Parameters with calculated Water Quality Based Effluent Limits

County: Boone	1-Year 02.38	2-Year 02.72	10-Year 03.96
County: Logan	1-Year 02.40	2-Year 02.74	10-Year 03.98

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the following interim requirements with the discharge limitations specified in this permit in accordance with the following schedule:

Interim Requirement	Completion Date
Effective date of this permit	

2. Reports of compliance or non-compliance with, and progress reports on the interim and final requirements contained in the above compliance schedule shall be submitted no later than fourteen (14) days following each schedule date.

N/A

C. TERMS AND CONDITIONS INCORPORATED BY REFERENCE TO THE WV NPDES REGULATIONS FOR COAL MINING AND FACILITIES, TITLE 47, SERIES 30.

5.1 Duty to Comply, Penalties

5.2 Duty to Reapply

5.3 Duty to Halt or Reduce Activity

5.4 Duty to Mitigate

5.5 Proper Operation and Maintenance

5.6 Permit Actions

5.7 Transfer

5.8 Property Rights

5.9 Duty to Provide Information

5.10 Inspection and Entry

5.11 Monitoring and Records

5.12 Signatory Requirements

5.13 Reporting Requirements

5.14 Bypass

5.15 Upset

5.16 Reopener Clause

5.17 Removed Substances

5.18 New Sources (if applicable)

5.19 Definitions

D. OTHER REQUIREMENTS

1. REPORTING SPILLS AND ACCIDENTAL DISCHARGES

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to Series 3, Section 1 of the Environmental Quality Boards regulations.

Attached is a copy of the West Virginia Spill Alert System for use in complying with Series 3, Section 1 of the regulations as they pertain to the reporting of spills and accidental discharges.

2. HAULAGEWAYS AND ACCESS ROADS

Haulageways and access roads shall be constructed and maintained in accordance with best management practices including, but not limited to, the performance standards contained in Title 38, Series 2, Section 4 of the West Virginia Surface Mining Reclamation Regulations.

3. RECEIVING STREAMS

The receiving streams shall be monitored by grab samples as required at the stream sampling points listed below, and the samples shall be analyzed for the parameters listed below. The flow of the stream shall also be estimated at the time of monitoring. Monitoring shall be done approximately at the same time as the discharge points are monitored as required under Section A of this permit. A quarterly report of the stream monitoring and flow shall be sent to the NPDES section in Charleston, on the enclosed forms along with the reports required under Section A. Based upon the stream monitoring flow data, water quality standards or other information, the Department may at any time modify the effluent limits in Section A of this permit for any of the discharge points if necessary, to insure compliance with water quality standards.

STREAM STATION	LATITUDE	LONGITUDE	ELEV.
BAS-1	37° 52' 53.0000"	81° 53' 29.0000"	1030
	Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Alkalinity, Total/ Total Suspended Solids/ Calcium, Total (as Ca)/ Magnesium,Tot (as Mg)/ Sodium,Total (as Na)/ Potassium, Total (as K)/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)		
DEF1	37° 52' 39.0000"	81° 53' 58.0000"	925
	Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)		
DEF2	37° 52' 03.0000"	81° 54' 41.0000"	870
	Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)		
DPF	37° 52' 42.0000"	81° 53' 37.0000"	975
	Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)		
UEF1	37° 52' 41.0000"	81° 52' 53.0000"	1175
	Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)		

STREAM STATION	LATITUDE	LONGITUDE	ELEV.
UEF2	37° 53' 48.0000"	81° 53' 56.0000"	1145

Parameters: Stream Flow cfs/ Specific Conductance/ pH/ Total Sulfates (as S04)/ Selenium, Total Recoverable/ Iron, Total (as Fe)/ Manganese, Total (as Mn)/ Aluminum, Total (as Al)/ Aluminum, Diss. (as Al)/ Total Dissolved Solids (TDS)

4. SURFACE MINES

If the coal mining operation has been granted Phase II revegetation release and all discharge points have been eliminated during the period this permit is in effect, the discharge limitations and monitoring requirements in Section A and Section D.3 stream monitoring shall not apply. The coal mining operation shall be maintained in accordance with best management practices including, but not limited to the applicable performance standards contained in Title 38, Series 2, West Virginia Mining Reclamation Regulation until the associated performance bond has been final released.

5. STORM WATER DISCHARGES

Such discharges shall comply with the applicable Water Quality Standards in 47 CSR 2. Activities consisting of discharges of storm water runoff or snow melt composed entirely of flows which are from conveyances used for collecting and conveying precipitation runoff, in accordance with 47 CSR 30, Section 3.1.a.6 and are authorized under Chapter 22, Article 3, are authorized by this permit. Such storm water discharges shall not involve any mineral removal, pumping of storm water, or storm water runoff commingled with mine drainage, refuse drainage, coal stockpile areas, preparation plant areas, loading areas or unloading areas. The activities shall be constructed and maintained in accordance with the issued Article 3 Permit Revision including incidental boundary revisions and with the best management practices and performance standards contained in 38 CSR 2 and Chapter 22, Article 3. These storm water discharges are authorized under this Condition upon issuance of the associated Article 3 application for the life of this permit. Updated NPDES permit application information will be submitted in the next reissuance application for activities covered under this Condition. The Director reserves the right to require any permittee to submit a NPDES modification when the Director determines that such receiving stream will be better protected by an individual NPDES modification.

6. SPECIAL EFFLUENT CHARACTERIZATION CONDITION

The permittee must perform Table 2-IV-A, B, C analyses within two (2) years of commencement of a new discharge. The permittee is also required to identify and analyze any potential pollutants not covered under 2-IV-A, B, C analyses which may be present due to use, manufacturing or byproduct. Representive outlets are acceptable for discharges which receive drainage from similar mining activities and are of the same outlet type. Two (2) copies of the Table 2-IV-A, B and C analyses and any additional potential pollutant analyses must be submitted to the regional office Permit Supervisor and Inspector Supervisor within two (2) years of commencement of discharge.

7. SPECIAL SAMPLING CONDITIONS

As set forth in the remainder of this condition, Permittee shall monitor following a qualifying event at the constructed on-bench outlet (precipitation induced) which has been disturbed by mining activity with the largest component drainage area and at the constructed on-bench outlet (precipitation induced) at the lowest elevation on the down dip portion of the operation that has been disturbed by mining activity* at the time of the qualifying event. The stream monitoring stations associated with the monitored outlets must also be monitored at approximately the same time. A qualifying event is defined as any event where 0.3 inches or more of rainfall occurs within a consecutive 24 hour period. The monitoring can be initiated at any point after rain gauge data indicates 0.3 inches of precipitation has occurred and shall be completed no later than eighteen (18) hours after cessation of the precipitation event. Once a qualifying event is sampled in a given calendar month, this condition is satisfied for that calendar month.

Monitoring at both the outlets and at the associated stream monitoring stations required by this condition shall be for flow, pH, total dissolved solids, specific conductivity and sulfates

In the event of a discharge from the precipitation induced outlets, the sample(s) may be substituted for one of the required semi-monthly samples for the outlet(s) and as such, must be analyzed for all parameters listed in Section A of the permit for each respective outlet and parameters listed in Section D.3 of the permit for the associated stream monitoring station(s). Samples collected from an event that are in addition to the required semi-monthly monitoring must be analyzed for total dissolved solids, sulfates, specific conductivity, flow and pH for each respective outlet and associated stream station(s).

Rain gauge information must be maintained during the term of the life of the permit and made available to the Director upon request. The Director may require additional sampling if necessary to document that narrative water quality standards are being achieved.

*Note: Outlets with technology-based post mining effluent limitations (flow, pH and settable solids) are exempt from this condition and shall not be sampled to fulfill the requirements of such.

Monthly reports must be maintained detailing which outlet(s) and stream monitoring station(s) were monitored for this condition. The reports must document that the outlet(s) sampled met the criteria defined in the special condition.

Each report must contain the following information:

Date, time and rain gauge reading for the event sampled.

Analytical results (flow, pH, total dissolved solids, specific conductivity and sulfates) for the outlet(s) stream monitoring station(s) sampled each month to fulfill the requirements of this condition.

These monthly reports must be submitted quarterly no later than twenty (20) days following the end of each quarter. In the event that the sample will be used to substitute for one of the required semi-monthly sampling requirements, the analysis must also be included in the discharge monitoring report for that given month.

Copies of the quarterly reports are to be submitted in a format prescribed by WVDEP to:

West Virginia Department of Environmental Protection
DMR – NPDES Program Manager
601 57th Street S.E.
Charleston, WV 25304
and
WVDEP – Regional Office - Permit Inspector

8. REOPENER CLAUSE

This permit may be reopened and modified, suspended, revoked and reissued or revoked at any time if information becomes available and demonstrates that the established controls do not attain and maintain the narrative water quality criteria at 47 CSR 3.2.e and 47 CSR 3.2.i.

9. BIO-MONITORING

The permittee shall conduct annual benthic survey(s) at the location of each biological monitoring station listed below. The benthic survey(s) shall be conducted between the dates of April 15th to October 15th. All biological survey(s) should be conducted as close to the anniversary date of the original survey as possible. The benthic survey shall be in accordance with the established and accepted protocols for the collection, analysis, documentation and presentation of biological data from Standard Conditions for Environment Assessments on Wadable Streams provided with the WVDNR Scientific Collection Permit and WVDEP's West Virginia Stream Condition Index ("WVSCI") protocol.

If the agency finds the condition of the aquatic ecosystem at the assessment stations prior to initiation of the permitted activity to be satisfactory, taking into account all potentially applicable criteria, then the acceptable future biological condition is a WVSCI score greater than or equal to the WVSCI value representing the 5th percentile of reference (currently 68.0). If the agency finds the condition of the aquatic ecosystem at the assessment stations is less than satisfactory (currently 68), taking into account all potentially applicable criteria, then the applicant shall identify existing conditions within the watershed that may be contributing to the problem. If a TMDL addressing biological impairment for ionic stress is not in effect, a WVSCI score greater than or equal to the baseline value would represent an acceptable future condition.

Biological Monitoring Stations:

Station	Latitude	Longitude
x		
BAS-1	37° 52' 53.0000"	81° 53' 29.0000"

Within 90 days after conducting the benthic survey the permittee shall provide:

a. The West Virginia Stream Condition Index (WVSCI) benthic score (0 to 100 basis) and supporting metrics necessary for its calculation.

b. The corresponding stream habitat assessment scores RBP Visual-Based Habitat Assessment (0 to 200 basis) for the benthic stations.

c. Concurrent in-stream samples for specific conductivty, total dissolved solids (TDS), pH, sulfate, alkalinity, calcium, magnesium, sodium and potassium must be taken at the same locations along with the benthic samples.

d. Representative legible photography of the survey sites.

e. A narrative Executive Summary / Abstract stream characterization utilizing the benthic and habitat scores, water quality, photos, field work and other applicable information such as tier level, warm-water class, stream order, major/minor basins, pre-law mining impacts, logging activites, other land uses, etc.

(f) Benthic macroinvertebrate data. Data shall be entered into the Access database (Contractv3.4 or 3.5) provided to holders of WV Scientific Collection Permits. Data shall be submitted via the export queries built into the database. Minimum data to be provided: WVSCI score and associated metrics; raw data (identifications and count); and number of grids picked in order to get 200 organism subsample. Also, habitat and water quality data must be submitted via the export queries into the database.
All information to be provided shall be sent to the issuing WVDEP Regional Office - NPDES Supervisor and Environmental Resources Analyst and to WVDEP Headquarters (Address: West Virginia Department of Environmental Protection, DMR - NPDES Environmental Resources Analyst, 601 57th Street S. E. , Charleston,
WV 25304).

10. WHOLE EFFLUENT TOXICITY LIMITS

The permittee shall quarterly perform chronic toxicity tests as described below, on the effluent from Outlet(s) 001

a. Such testing will determine if an appropriate dilute effluent sample affects the survival or reproduction of the test species. Grab samples of the effluent, as prescribed in Section A, shall be collected for testing. The first day of sampling must be limited to when there has been less than 0.3 inches of rain in the three days prior to sampling and less than 0.1 inches of rain in the 24 hours prior to sampling (this only applies to the first grab sample of the test). An appropriate statistical test shall be used to determine whether differences in control and effluent data are significant.

The permittee shall conduct a three brood (6-8 days) Ceriodaphnia Dubia survival and reproduction toxicity test on the final effluent diluted by appropriate control water. Toxicity will be demonstrated if there is a statistically significant difference at the 95 percent confident level in survival or reproduction between Ceriodaphnia Dubia exposed to an appropriate control water and the final effluent. All test solutions shall be renewed using an approved renewal schedule. DEP requires TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in WET testing. If, in any control, more than 20% of the test organisms die, or less than 60% of surviving females in controls produced their third brood, that test shall be repeated.

b. Results shall be reported in terms of chronic toxic units (TUc) and shall be submitted with the corresponding monthly Discharge Monitoring Report (DMR).

TUc = 100/NOEC or NOEL

Where NOEC (or NOEL) is No Observed Effect Concentration (or Level), which is expressed as Percent (volume) effluent in dilution water. For Example, if NOEC is 10%, TUc= 100/10=10

When the effluent demonstrates no toxicity at 100% effluent (no observed effect), the permittee may report zero TUc.

c. The monitoring required, herein, shall be conducted in accordance with the sample collection, preservation, and analytical procedures specified in 40 CFR 136.

d. In addition to the monitoring data reporting requirements of 40 CFR 136, the exact age of the test organisms at the initiation of the test shall be reported. The range of the Ceriodaphnia Dubia used must be reported as a range in hours. All Ceriodaphnia Dubia used in the test must be less than 24 hours of age at test commencement. The age difference between the youngest and oldest Ceriodaphnia Dubia used in the test must not exceed eight(8) hours.

e. The chronic toxicity testing shall be performed on a quarterly (1/quarter) basis with at least thirty (30) days between tests. The first chronic toxicity testing shall be carried out within 3 months from the construction of the above specified Outlet(s).

f. If chronic effluent toxicity testing shows noncompliance with the specified limitations prescribed in Section A, the permittee shall immediately resample and test the effluent. This shall be performed within 30 days of the initial demonstration of noncompliance with the whole effluent toxicity discharge limitations prescribed herein. Copies of the retesting results shall be provided to the Director immediately upon completion of the test.

g. If the second test shows compliance, chronic effluent toxicity testing shall continue in accordance with the requirements, as prescribed herein. However, if the second test shows noncompliance, the permittee must, within 60 days, submit an adaptive management plan (AMP) identifying actions it will take to achieve compliance with the WET discharge limitations.

h. The Director may impose further requirements should the chronic effluent toxicity testing results demonstrate noncompliance.

All information to be provided shall be sent to the issuing WVDEP Regional Office - NPDES Supervisor and Environmental Resources Analyst and to WVDEP Headquarters (Address: West Virginia Department of Environmental Protection, DMR - NPDES Program Manager, 601 57th Street S. E. , Charleston, WV 25304).

/

The herein-described activity is to be extended, modified, added to, made, enlarged, acquired, constructed or installed, and operated, used and maintained strictly in accordance with the terms and conditions of this permit; the plans and specifications submitted with Permit Application No. WV1019805, completed the 17 day of January 2013; the information submitted with the application for Reissuance No. N/A completed the N/A day of N/A N/A, with the plan of maintenance and method of operation thereof submitted with such application(s) with the WVNPDES Regulations, Series 30 and with any applicable rules and regulations promulgated by the State Environmental Quality Board.

Failure to comply with the terms and conditions of this permit, with the plans and specifications submitted with Permit Application No. WV1019805, completed the 17 day of January, 2013, with the information submitted with Application No. for Reissuance No. N/A completed the N/A day of N/A, N/A and with the plan of maintenance and method of operation thereof submitted with such application(s) shall constitute grounds for the revocation or suspension of this permit and for the invocation of all the enforcement procedures set forth in Article 11, Chapter 22 of the code of West Virginia.

This permit is issued in accordance with the provisions of Article 11, Chapter 22 of the Code of West Virginia and is transferable under the terms of WVNPDES Regulations, Series 30, Subsection 3.5.c.

RIGHT TO APPEAL

Notice is hereby given of your right to appeal the terms and conditions of this agency action as provided under West Virginia Code § 22-11-21. Pursuant to the provisions of § 22B-1-7(c), a person subject to this action (permittee) may file an appeal to the Environmental Quality Board (EQB) within 30 days of being served notice of such agency action. For other parties (citizens) adversely affected or aggrieved by this action, an appeal may be filed to the EQB within 30 days after the date upon which service was complete to the subject person "(permittee)". Such Notice of Appeal shall be sent to the EQB on the form prescribed by the Board.

West Virginia Environmental Quality Board
601 57th Street, SE
Charleston, West Virginia 25304

RATIONALE PAGE

NPDES Number: WV1019805 (NPD-1) County: Boone, Logan

Company Name: ARACOMA COAL COMPANY INC

Facility Name: Piney Branch Surface Mine

SMA/Permit No.: S503508(SMA)

Other Apps:

Date of Draft: 01/17/2013

Permit Writer: Melissa Johnson

Region: Logan

1. New or expanded discharge? NO

2. Facility eligible for General Permit? NO

3. Basis for effluent limitation:

A. Determine uses of each receiving stream.

Stream Uses	Stream Name
1	DINGESS RN
1	Ethel Hollow

B. Parameters of concern:

YES	pH	YES	Fe	YES	Mn
YES	Al (D)	YES	Al (T)	YES	Others

Specify Others: Se

C. Justification Review: Aracoma Coal's Piney Branch Surface Mine proposes to surface mine utilizing area, contour, steep slope, and highwall methods of mining in the Upper Kittanning, Middle Kittanning, Lower Kittanning/5-Block, Clarion, Lower Clarion, Upper Stockton, Middle Stockton, Lower Stockton, Middle Coalburg, Lower Coalburg and all associated splits and riders. The operation will discharge treated and stormwater into unnamed tributaries of/and Pine Fork of Ethel Hollow and unnamed tributaries of/and Ethel Hollow of Dingess Run of the Guyandotte River. This operation is located 1.1 miles northeast of Ethel in Logan County WV.

The project will consist of one valley fill (Outlet 001) to permanently store the amount of overburden excavated in excess of that amount necessary to return the area to the post-mining land use of forestland.

Baseline water quality (BWQ) was established in each stream that would receive drainage from this proposed operation for the purpose of conducting an anti-degradation review. The locations of the BWQ stations were selected using WCMS (Watershed Characterization Modeling System) in Arc GIS. WCMS is a major tool developed for WVDEP through West Virginia University. Stream segments are designated as HUC 14 +2 reachsheds. Four BWQ stations were established for the proposed sixteen (16) outlets discharging effluent into their respective reachsheds. Water samples were collected over at least a six month period utilizing precipitation induced collection procedures in accordance with West Virginia's Anti-degradation Implementation Procedures and Guidance. All BWQ samples were collected and analyzed by a state certified lab for pH, Iron, Manganese, Total Aluminum, Dissolved Aluminum, and Selenium. These parameters were selected as parameters of concern by the following reasons. Since this is a new coal mining operation, the NPDES limits must be established in accordance with the New Source Effluent Limitation Guidelines (ELGs) as mandated in 40 CFR 434. Flow, pH, Iron, Manganese, TSS and settleable solids are the minimum required parameters established under the ELGs established under 40 CFR 434. Aluminum was considered a parameter of concern for coal mining discharges in the middle to late 1990's and has been included in WV NPDES permits since 2002. Both total and dissolved aluminum are required in the BWQ collection. Since the State's standard for aluminum is in the dissolved form, it must be converted (translated) into total, as required by EPA under the NPDES monitoring and reporting programs. Selenium was considered a "suspected" parameter of concern primarily due to the coal seams being in the Upper Kanawha Formation, namely between the Winifrede and the Upper 5-Block. Water quality degradation from potential selenium leaching is thought to be controllable by appropriate management and handling of the dark shales associated with coal beds. Proper placement of this material including keeping it off the coal

pavement, out of surface and sub-surface water pathways, and buried a minimum of 10 feet below the regrade surface of the backfill will minimize or eliminate the potential for selenium leachate entering the receiving waters. The permittee will treat any stratum that is identified through sampling and testing with selenium concentrations greater than 1 mg/kg as acid-toxic material. The strata with selenium levels in excess of 1 mg/kg will be specifically handled at toxic material. Those strata that are located within immediate proximity of the coal identified as having selenium levels in excess of 1 mg/kg in the overburden will be removed during coal removal operations and isolated within the regraded backfill. In the areas where such strata appear in the overburden, the overburden will be isolated during the removal process.

Of the four (4) BWQ Stations, two (2) were utilized to conduct the anti-degradation review. The originally assigned BWQ stations were consolidated in order to conduct a comprehensive review in certain watersheds. This assures no more than 10% of the assimilative capacity was utilized for this permitting action.

BWQ- 2642-50 is assigned to Reachshed Id. 05070101002642-50 in Ethel Hollow and was used for on-bench outlets 002-006, and in-stream outlet 001. Since there were no flowing conditions in Pine Fork (BWQ-2639-50 & 0366-50) the next reachshed downstream was utilized.

Total Iron Limits - 1.29 mg/L (AML) & 2.23 mg/L (MDL)
Total Manganese Limits - 2.00 mg/l (AML) & 3.47 mg/L (MDL)
Total Aluminum Limits - 0.39 mg/L (AML) & 0.68 mg/L (MDL)

Total Selenium Limits - 4.7 μg/L (AML) & 8.2 μg/L (MDL)

BWQ- 0874-50 is assigned to Reachshed Id. 05070101000874-50 in Ethel Hollow and was used for on-bench outlets 007-016.

Total Iron Limits - 1.42 mg/L (AML) & 2.46 mg/L (MDL)

Total Manganese Limits - 2.00 mg/l (AML) & 3.47 mg/L (MDL)
Total Aluminum Limits - 1.31 mg/L (AML) & 2.27 mg/L (MDL)
Total Selenium Limits - 4.7 μg/L (AML) & 8.2 μg/L (MDL)

Total Selenium results from core hole PF05-01 indicated a couple of thin stratigraphic units aside from the coal seams with concentrarions exceeding the 1 mg/Kg per foot of stratea maximum contaminant level (MCL). Based on this information provided and the Materials Handling Plan which is specified in the SMCRA permit, it is not anticipated that selenium will be an issue that would require additional treatment beyond the controls proposed for this facility. Outlets 001-016 will have Se limits. Should the results of monitoring show a need for treatment, the WVDEP will order the permittee to develop and implement a treatment plan.

APPLICABILITY OF WV NARRATIVE WATER QUALITY STANDARDS
In accordance with the Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standard, and to satisfy EPA's related concerns and objections to other similar permitting actions, this permit contains a Special Effluent Characterization Condition, a Special Sampling Condition for precipitation induced discharges, Bio-Monitoring, Whole Effluent Toxicity Limits and a Reopener Clause.

Precipitation Induced Discharges - Monitoring requirements for Total Dissolved Solids, Sulfate and Specific Conductance has been added to all outlets and stream monitoring stations for this permit to address the USEPA concerns with the WV Narrative Water Quality Standards. Outlets 002-016 proposed in this application are precipitation induced discharges (i.e. associated with on-bench sediment structures that discharge in direct response to precipitation only). According to the Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47CSR2-sections 3.2.e and 3.2.i issued August 12, 2010 and revised August 18, 2010; facilities of this type are unlikely to cause or contribute to violations of West Virginia's narrative water quality standards.

Precipitation induced discharges (stormwater) primarily flow only in response to precipitation and do not have residence time with unweathered rock and therefore would not be expected to have elevated mineralization/ions in the discharge. Outlets that only flow as a direct response to precipitation are flowing only at the time when the receiving streams have the greatest assimilative capacity (dilution). Specifically, on bench structures are designed to not discharge during critical low flow conditions of the receiving stream and therefore, does not have a reasonable potential to adversely impact the aquatic ecosystem.

On bench outlets rarely produce flow and therefore, have very little potential to impact water quality. Because on bench Outlets 002-016 in this application discharge

over a mountain side and not directly into waters of the United States, even on the rare occasions when they produce flow, one cannot necessarily conclude that the flow will reach waters of the United States. As outlets that are expected to flow only in direct response to precipitation, the flow from them will not have the residence time with un-weathered rock that would allow it to have the elevated mineralization or ionic content that EPA's research has associated with adverse impacts to the benthic macro-invertebrate community. In addition, outlets that only flow during precipitation events are flowing only at the time when the receiving streams have the greatest assimilative capacity (dilution). The design of these outlets is such that they will not discharge during critical low flow conditions of the receiving stream. For these reasons the WVDEP believes these outlets do not have reasonable potential to adversely impact the aquatic ecosystem or to cause or contribute to a violation of the narrative water quality standard which protects it. DMR data and corresponding rain gauge from an adjacent permit was used to confirm this finding and is included in the draft. To validate the presumption, a special sampling condition has been applied.

Special Sampling Condition - This special sampling condition is being added to the permit to verify the presumption that discharges from on-bench outlets which flow only in response to precipitation would not be expected to have reasonable potential to cause or contribute to a violation of the narrative water quality standards. The sampling is also intended to document relationship between discharges from on-bench outlets (precip-induced) and stream quality and to verify that discharges from these outlets only flow when streams have the greatest assimilative capacity. Sample site criteria are being specified to direct sampling to the outlet(s) which are most likely to discharge during any given sampling event in response to precipitation. The sample locations will change in response to the progress of mining.
Bio-Monitoring - The permit contains bio-monitoring at One Biological Assessment Stations (BAS) down-stream of the valley fill location. Benthic surveys shall be conducted annually between the dates of April 15th and October 15th as close to the anniversary date of the original survey as possible. The benthic survey shall be in accordance with the established and accepted protocols for the collection, analysis, documentation and presentation of biological data from Standard Conditions for Environment Assessments on Wadable Streams provided with the WVDNR Scientific Collection Permit and WVDEP's West Virginia Stream Condition Index ("WVSCI") protocol.

If the agency finds the condition of the aquatic ecosystem at the assessment stations prior to initiation of the permitted activity to be satisfactory, taking into account all potentially applicable criteria, then the acceptable future biological condition is a WVSCI score greater than or equal to the WVSCI value representing the 5th percentile of reference (currently 68.0). If the agency finds the condition of the aquatic ecosystem at the assessment stations is less than satisfactory (currently 68.0), taking into account all potentially applicable criteria, then the applicant shall identify existing conditions within the watershed that may be contributing to the problem. If a TMDL addressing biological impairment for ionic stress is not in affect, a WVSCI score greater than or equal to the baseline value would represent an acceptable future condition.

Whole Effluent Toxicity (WET) Limits- In accordance with the "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards, 47 C.S.R. 2 §§ 3.2.e and 3.2.i", in-stream outlet 001 in this permit have been presumed to have reasonable potential. WET limits have been assigned to this outlet in this permit, as prescribed by 40 C.F.R. § 122.44(d)(1)(v). The permittee shall quarterly perform chronic toxicity on the effluent from Outlet 001. The USEPA's Technical Support Document (TSD) as well as West Virginia's "Permitting Guidance for Surface Coal Mining Operations to Protect West Virginia's Narrative Water Quality Standards" requires use of the most sensitive available surrogate organism (ceriodaphnia dubia) for chronic toxicity testing of effluents. In addition, TDS, conductivity, sulfate, and bicarbonate analyses for each aliquot used in the WET testing have been required.

Reopener Clause - This permit may be reopened and modified, suspended, revoked and reissued and revoked at any time if information becomes available and demonstrates that the established controls do not attain and maintain the narrative water quality criteria at 47 CSR 3.2.e and 47 CSR 3.2.i.

4. Types of effluent limitations:

Technology Based Outlets (0):

Water Quality Based Outlets (16): 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013, 014, 015, 016

Best Professional Judgement Based Outlets (0):

Special Outlets (1): BAS-1

Ammonia Outlets (0):

Sewage Outlets (0):

Additional Comments: /

5. Special Conditions or other monitoring requirements:

Stream Monitoring: BAS-1, DEF1, DEF2, DPF, UEF1, UEF2

Groundwater Monitoring:

6. Does the application contain:

Valley fills/refuse?	N/A
In Ephemeral Streams?	N/A
In Intermittent/Perennial Streams?	N/A

EMERGENCY RESPONSE SPILL ALERT SYSTEM
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

REQUIREMENTS:

West Virginia Legislative Rules Title 47, Series 11, Section 2 effective July 1, 1987.

RESPONSIBILITY FOR REPORTING:

Each and every person who may cause or be responsible for any spill or accidental discharge of pollutants into the waters of the State shall give immediate notification to the Emergency Notification Number **1-800-642-3074**. Such notification shall set forth insofar as possible and as soon thereafter as practical the time and place of such spill or discharge, type or types and quantity or quantities of the material or materials therein, action or actions taken to stop such spill or discharge and to minimize the polluting effect thereof, the measure or measures taken or to be taken in order to prevent a recurrence of any such spill or discharge and such additional information as may be requested by the Department of Environmental Protection. A written verification of such notification shall be submitted upon request of the Department of Environmental Protection.

It shall be the responsibility of each industrial establishment or other entity discharging directly into a stream to have available the following information pertaining to those substances that are employed or handled in its operation in sufficiently large amount as to constitute a hazard in case of an accidental spill or discharge into a public stream:

1. Potential toxicity in water to main, animals and aquatic life;
2. Details on analytical procedures for the quantitative estimation of such substances in water; and
3. Suggestions on safeguards or other precautionary measures to nullify the toxic effects of a substance once it has gotten into a stream.

Failure to furnish such information as required by Section 14, Article 11, Chapter 22, Code of West Virginia shall be punishable under Section 24, Article 11, Chapter 22, Code of West Virginia.

It shall be the responsibility of any person who causes or contributes in any way to the spill or accidental discharge of any pollutant or pollutants into State waters to immediately take any and all measures necessary to contain such spill or discharge. It shall further be the responsibility of such person to take any and all measures necessary to clean up, remove and otherwise render such spill or discharge harmless to the water of the State.

When the Director, Division of Water and Waste Management determines it necessary for the effective containment and abatement of spills and accidental discharges, the Director of Water and Waste Management may require the person or persons responsible for such spill or discharge to monitor affected waters on a manner prescribed by the Director of Water and Waste Management until the possibility of any adverse effect on the waters of the State no longer exists.

VOLUNTARY REPORTING BY LAW OFFICERS, U.S. COAST GUARD, LOCK MASTERS AND OTHERS:

In cases involving river and highway accidents where the responsible party may or may not be available to report the incident, law officers, U.S. Coast Guards, Lock Masters and other interested persons should make the report.

WHO TO CONTACT:

Notify Department Headquarters in Charleston, West Virginia at the following number: 1-800-642-3074. (This is a toll-free, 24-hour emergency response number.)

INFORMATION NEEDED:

- Source of spill or discharge
- Location of incident
- Time of incident
- Name of material spilled/discharged
- Amount of material spilled/discharged
- Spilled/discharged materials toxicity
- Personnel at the scene
- Actions initiated
- Shipper/Manufacturer identification
- Railcar/Truck identification numbers
- Container type

GPP TRACKING FORM

PERMITTEE NAME: ARACOMA COAL COMPANY INC

WVNPDES PERMIT NO.: WV1019805

SMCRA PERMIT NOs.: S503508(SMA)

GPP DATE: 01/17/2013 Approved

REGION: Logan INSPECTOR: Jonathan Rorrer

NPDES PERMIT WRITER: Melissa Johnson

west virginia department of environmental protection

Division of Mining and Reclamation
601 57th Street, SE
Charleston, WV 25304-2345
Phone: (304) 926-0490
Fax: (304) 926-0456

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ARACOMA COAL COMPANY INC
PO BOX 1120
HOLDEN, WV 25625

Gentlemen:

Enclosed is your WVNPDES Permit No. WV1019805 for your Surface Mine located near Ethel in Boone, Logan County, West Virginia.

We suggest that this permit or a copy of it be kept in the office nearest the discharge point.

If you have any questions, please contact me at (304) 792-7250 or by mail at:

Department of Environmental Protection
1101 George Kostas Drive
Logan, WV 25601
Attention: Melissa Johnson

Sincerely,

Melissa Johnson
Permit Writer

cc: Environmental Protection Agency
Environmental Inspector
DEP Regional Office File
Headquarters NPDES File

dep	Applicant: ARACOMA COAL COMPANY INC Reference ID: Piney Branch Surface Mine (10/18/2007) (10/18/2007) DEP Only Section	Type: New Application, NPDES #1 Permit ID: WV1019805 Status: ERIS - Pending Printed: Jan. 07, 2013 10:05 AM

WVDEP Staff : Thomas L. Satterfield Date: 10/31/12

Comment: The AEPP appears to be correct and complete.

WVDEP Staff : Jonathan Rorrer Date: 11-5-12

Comment: Inspector has attached corrections.

WVDEP Staff : Jonathan Rorrer Date: 1-4-13

Comment: Inspector sign-off

Add 1 Row

dep	**Applicant: ARACOMA COAL COMPANY INC** **Reference ID: Piney Branch Surface Mine (10/18/2007) (10/18/2007)** **Mod 1 Part VIII: Applicant Certification**	**Type: New Application, NPDES #1** **Permit ID: WV1019805** **Status: ERIS - Pending** **Printed: Oct. 23, 2012 8:27 AM**

A. I certify under penalty of law that this application and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Jeff Ellis — *(Name of Official)*

President — *(Title of Official)*

Jeffrey A. Ellis

(Signature in accordance with Title 47, Series 30, Section 4.7.1)

Subscribed and sworn before me this 23rd day of October, 2012.

My commission expires: November 28, 2013

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
KIMBERLY D. SMITH
412 FIRST AVENUE
WEST LOGAN WV 25601
My Commission Expires 11/28/2013

Kimberly D. Smith

(Signature of Notary Public)

(Seal)

Any and all certifications pertaining to this application can be viewed at the WVDEP Regional Office.

dep	**Applicant: ARACOMA COAL COMPANY INC** **Reference ID: Piney Branch Surface Mine (10/18/2007) (10/18/2007)** **Mod 14 Part VIII: Applicant Certification**	**Type: New Application, NPDES #1** **Permit ID: WV1019805** **Status: ERIS - Pending** **Printed: Oct. 23, 2012 8:25 AM**

A. I, the undersigned, having examined this facility and this Groundwater Protection Plan (GPP), will commit the resources to comply with this plan, the Groundwater Protection Act, and the applicable regulations.

Jeff Ellis — President

(Name of Official) — *(Title of Official)*

Jeffy A. Ellis

(Signature in accordance with Title 47, Series 30, Section 4.7.1)

Subscribed and sworn before me this 23rd day of October, 2012.

My commission expires: November 28, 2013

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
KIMBERLY D. SMITH
412 FIRST AVENUE
WEST LOGAN WV 25601
My Commission Expires 11/28/2013

Kimberly D. Smith

(Signature of Notary Public) *(Seal)*

Any and all certifications pertaining to this application can be viewed at the WVDEP Regional Office.

BWQ INFORMATION

DATE BWQ WAS ASSIGNED:	7/25/05								
BWQ STATION ID:	27								
MAJOR STREAM BASIN:	Guyandotte River								
MINOR STREAM BASIN:	Dingess Run								
IMMEDIATE RECEIVING STREAM:	Ethel Hollow								
REACHSHED SHEDCODE ID (16 digit):	05070101000874-50								
DNR STREAM CODE:	OG-68								
IS THIS BWQ LOCATED IN A TROUT STREAM? (Yes or No)	NO								
IS THIS BWQ STATION LOCATED WITHIN 5 MILES OF A SURFACE WATER INTAKE THAT IS BEING USED FOR HUMAN CONSUMPSTION ? (Yes or No)	NO								
DRAINAGE AREA OF REACHSHED (enter either sq miles or acres)		sq miles	1589.40	acres	1589.40				
7Q10 FLOW (enter in cfs only)	0.0020		CFS ONLY						
LIST ALL PARAMETERS FOR WHICH BWQ IS TO BE ESTABLISHED	Flow	pH	Fe	Mn	Tot. Al	Diss. Al	Se	OTHER	OTHER
CHECK THE PARAMETER(S) FOR WHICH THIS STREAM IS LISTED IMPAIRED (303d List, TMDL, etc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
CHECK THE PARAMETER(S) THAT HAVE A COMPLETED DOWNSTREAM TMDL			☑	☐	☐	☐	☐	☐	☐
AGENCY ASSIGNING BWQ:	DMR / DEP								
DEP CONTACT / PHONE No.:						304-792-7250			
BWQ GENERATOR / PHONE No.:	Erin Johnston					304-792-7250			
CONSULTANT / PHONE No.:	Sharon Cornette - P&A Engineers					606-673-4413			
LATITUDE	DEG		37.0	MIN		52.0	SEC		42.0
LONGITUDE	DEG		81.0	MIN		54.0	SEC		2.0
ANTICIPATED DATE TO BEGIN COLLECTION:	7/05								

Comments:

2014-00657202320

BWQ ANALYSIS

	DATE SAMPLED	FLOW (CFS)	pH (su)	TOTAL FE (mg/l)	TOTAL MN (mg/l)	TOTAL AL (mg/l)	DISS AL (mg/l)	TOTAL SE (mg/l)	OTHER (mg/l)	OTHER (mg/l)	OTHER (mg/l)	RAIN GAUGE INFORMATION Prior 24 hrs (inch)	Prior 48 hrs (inch)	Prior 72 hrs (inch)
				ND	ND	ND	ND	ND	ND	ND	ND			0.00
1	5/27/2010	5.62	7.61	0.1500	0.0600	0.0370	0.0100	0.0044000				0.00	0.00	0.00
2	6/10/2010	5.11	7.71	0.1200	0.0600	0.0530	0.0100	0.0041000				0.00	0.00	0.00
3	6/26/2010	5.12	7.71	0.1400	0.0500	0.0430	0.0100	0.0010000				0.00	0.00	0.00
4	7/14/2010	4.87	7.76	0.1800	0.0600	0.0780	0.0100	0.0059600				0.00	0.06	0.00
5	7/29/2010	3.24	7.60	0.1100	0.0100	0.0300	0.0100	0.0202000				0.00	0.00	0.00
6	8/21/2010	3.91	7.92	0.0800	0.0100	0.0820	0.0100	0.0072900				0.00	0.00	0.00
7	8/31/2010	3.68	8.10	0.1500	0.1000	0.0400	0.0100	0.0121000				0.00	0.00	0.00
8	9/7/2010	3.50	8.05	0.2100	0.0700	0.0880	0.0300	0.0010000				0.00	0.00	0.00
9	9/23/2010	2.64	7.80	0.1300	0.0900	0.0240	0.0100	0.0073600				0.00	0.00	0.00
10	10/1/2010	2.69	7.84	0.1300	0.0800	0.0100	0.0100	0.0034600				0.00	0.00	0.00
11	10/19/2010	2.94	7.89	0.1500	0.0800	0.0750	0.0100	0.0010000				0.00	0.00	0.00
12	11/10/2010	3.59	8.18	0.1700	0.1200	0.0430	0.0100	0.0073500				0.00	0.00	0.00
13	11/23/2010	3.01	8.05	0.1700	0.1100	0.0850	0.0100	0.0068200				0.00	0.00	0.00
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														

MDL (mg/l) used for analysis:	0.05000	0.02000	0.02000	0.02000	0.0020000 (IMPAIRED)			
AVERAGE	0.14538	0.06923	0.05292	0.01154	0.0063108			

All samples appear to have been collected in a manner that complies with the BWQ 7Q10 Collection Protocol

NOTE: PROVIDE THE MDL BEING USED IN THE ANALYSIS FOR EACH PARAMETER REPORTED. REPORT ALL "**NON-DETECT**" ANALYSIS AS HALF OF THE MDL OR AS **ND**. ***DO NOT*** REPORT ANY VALUE USING A LESS THAN (<) SYMBOL.

2014-00657202320

SUPPLEMENTAL ANALYSIS

	DATE SAMPLED	SC µS/cm	TDS ppm	SULFATE ppm ND	TSS ppm ND	TURBIDITY (mg/l) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	COLLECTION CONDITIONS: WEATHER CONDITIONS Prior 24 hrs	STREAM APPEARANCE CLARITY	STREAM FLOW SIZE
1	5/27/2010	1178.00		291.00	2.00									
2	6/10/2010	1465.00		257.00	0.50									
3	6/26/2010	1502.00		342.00	11.00									
4	7/14/2010	1246.00		298.00	0.50									
5	7/29/2010	1446.00		240.00	0.50									
6	8/21/2010	1270.00		114.00	0.50									
7	8/31/2010	1462.00		252.00	0.50									
8	9/7/2010	1442.00		312.00	5.00									
9	9/23/2010	1652.00		34.00	2.00									
10	10/1/2010	1523.00		189.00	0.50									
11	10/19/2010	1509.00		48.00	0.50									
12	11/10/2010	1460.00		104.00	0.50									
13	11/23/2010	1590.00		150.00	1.00									
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														

LOW	1178.00		34.00	0.50						
HIGH	1652.00		342.00	11.00						
AVERAGE	1441.92		202.38	1.92						

2014-00657202320

ALUMINUM TRANSLATOR

SAMPLE DATE	TOTAL AL mg/l	DISSOLVED AL mg/l	ALUMINUM TRANSLATOR
5/27/2010	0.0370	0.0100	0.2703
6/10/2010	0.0530	0.0100	0.1887
6/26/2010	0.0430	0.0100	0.2326
7/14/2010	0.0780	0.0100	0.1282
7/29/2010	0.0300	0.0100	0.3333
8/21/2010	0.0820	0.0100	0.1220
8/31/2010	0.0400	0.0100	0.2500
9/7/2010	0.0880	0.0300	0.3409
9/23/2010	0.0240	0.0100	0.4167
10/1/2010	0.0100	0.0100	
10/19/2010	0.0750	0.0100	0.1333
11/10/2010	0.0430	0.0100	0.2326
11/23/2010	0.0850	0.0100	0.1176
AVERAGE	**0.0529**	**0.0115**	**0.2305**
95th PERCENTILE			**0.3750**

Since this is a proposed operation, no outlets have been constructed and the mix of the discharge(s) with the receiving stream cannot be measured yet. Therefore, the 95th Percentile shall be applied.

Dissolved Aluminum Criteria =	0.7500
CF = Conversion Factor (CF for Aluminum is 1) =	1.00
Translator (95th Percentile) =	0.3750

Total Aluminum Criteria (TAC) = $\frac{\text{Dissolved Aluminum Criteria x CF}}{\text{Translator}}$

TAC = $\frac{0.7500 \times 1}{0.3750}$

TAC = 2.0000

WASTELOAD ALLOCATION & ASSIMILATIVE CAPACITY WORKSHEET

Aracoma Coal Company

NPDES PERMIT No.	WV1019805	Art. 3 PERMIT No.	S-5035-08
App Type & Seq #	NEW	App Type & Seq #	SMA

BWQ Station ID:	27	Shedcode ID:	05070101000874-50	DNR Stream Code	OG-68
Immediate Stream:	Ethel Hollow	Minor Basin	Dingess Run	Major Basin	Guyandotte River
Trout Stream ?	NO	BWQ Located within five miles of a surface water intake ?			NO
Will the proposed outlet(s) be a non-precipitation induced (pumped) discharge?				○ YES	◉ NO
Total Drainage Area Monitored at BWQ Station			QT =	1589.4000	ACRES
Total Drainage Area Controlled By Outlets			Q2 =	139.7700	ACRES
Total Non-affected Drainage Area		(Q1 = QT - Q2)	Q1 =	1449.6300	ACRES

PARAMETERS OF CONCERN	Baseline (C_1)	Water Quality Criteria (WQC)		APPLIED WQC
	(Mg/l)	Trout (Mg/l)	Non-Trout (Mg/l)	(Mg/l)
Total Iron (Fe)	0.1454	0.50	1.50	1.5000
Total Manganese (Mn)	0.0692	NA	NA	NA
Dissolved Aluminum (Al)	0.0115	0.087	0.750	0.7500
Total Aluminum (Al)	0.0529	TRANSLATOR CALCULATED (TAC) =		2.0000
Total Selenium (Se)	0.0063	0.005	0.005	0.0050
Other				0.0000

CALCULATING WASTELOAD ALLOCATIONS (WLA)

PARAMETERS OF CONCERN		$C_T = (WQC - C_1)\ AC + C_1$		$C_2 = [(C_T\ Q_T) - (C_1\ Q_1)] / Q_2$	
Total Iron (Fe)	☐ NO	C_T =	0.28084	C_2 =	1.6857
Total Manganese (Mn)	☐ NO	C_T =	NA	C_2 =	2.0000
Total (Diss) Aluminum (Al)	☐ NO	C_T =	0.24763	C_2 =	2.2670
Total Selenium (Se)	☐ NO	C_T =	0.00631	C_2 =	0.0050
Other	☐ NO	C_T =	0.0000	C_2 =	0.0000

CHOOSE WHICH WASTELOAD (AVERAGE C2 VALUE) TO APPLY

PARAMETERS OF CONCERN	ALTERNATE	CALC	CRITERIA	TECH	SUGGESTED	ASSIGN C2
Total Iron (Fe)	0.0000	1.6857	1.5000	3.200	Cap @ 1.5	1.5000
Total Manganese (Mn)	0.0000	2.0000	NA	2.000	Assign 2	2.0000
Total (Diss) Aluminum (Al)	0.0000	2.2670	2.0000	6.000	Assign 2.267	2.2670
Total Selenium (Se)	0.0000	0.0050	0.0050	NA	Assign 0.005	0.0000
Other	0.0000	0.0000	0.0000		Assign 0	

ASSIMILATIVE CAPACITY (AC) CALCULATIONS

PARAMETERS OF CONCERN	Stream Tier Status	Tot % AC Allotted	% AC Available for This Use	Total % AC Being Used	Total Remaining Assimilative Cap
Total Iron (Fe)	Tier 2	19.9999	9.9999	8.8983	11.1016
Total Manganese (Mn)	Tier 1	0.0000	0.0000	0.0000	0.0000
Total (Diss) Aluminum (Al)	Tier 2	19.9999	9.9999	9.9999	10.0000
Total Selenium (Se)	Tier 1	0.0000	0.0000	0.0000	0.0000
Other	-	0.0000	9.9999	0.0000	0.0000

OUTLET INFORMATION

OUTLET No.	DRAINAGE AREA (ACRES)	FLOW RATE MAX (CFS)	EXCLUDE	ASSIGN ALTERNATE LOAD Fe (mg/l)	Mn (mg/l)	Al (mg/l)	Se (mg/l)	Other (mg/l)
007	8.86	15.7600	☐					
008	5.19	9.2300	☐					
009	12.52	22.2800	☐					
010	58.99	123.8200	☐					
011	5.40	9.6100	☐					
012	16.67	29.6600	☐					
013	19.00	38.3000	☐					
014	4.00	7.1200	☐					
015	3.60	6.4100	☐					
016	5.54	9.8600	☐					

TOTAL DRAINAGE AREA CONTROLLED THROUGH OUTLETS = 139.77 ACRES

TOTAL MAX FLOW TO BE DISCHARGED FROM OUTLETS = 272.0500 CFS

	Fe	Mn	Al	Se	Other
ALTERNATE CALCULATED WASTELOAD =	0.0000	0.0000	0.0000	0.0000	0.0000

COMMENTS

WATER QUALITY BASED EFFLUENT LIMITATIONS: Aracoma Coal Company

NPDES PERMIT No. WV1019805 Art. 3 PERMIT No. S-5035-08

App Type & Seq # NEW App Type & Seq # SMA

For Outlets: 007, 008, 009, 010, 011, 012, 013

AQUATIC LIFE PROTECTION:

STREAM: HARDNESS: 100 (mg/l as CaCO3) EFF. Q: (MGD)

ln(hrd) = 4.605170186

PARAMETER	WEST VIRGINIA WQS ACUTE AQU. LIFE (mg/l)	WEST VIRGINIA WQS CHRONIC AQU. LIFE (mg/l)	STREAM BKGRD CONC. (mg/l)	WASTELOAD ALLOCATION ACUTE AQU. LIFE (mg/l)	WASTELOAD ALLOCATION CHRONIC AQU. LIFE (mg/l)	EFFLUENT CV	ACUTE STD DEV σ	CHRONIC STD DEV σ-4	WLA ACUTE MLTP.	WLA CHRONIC MLTP.	LONG TERM AVERAGES ACUTE AQU. LIFE (mg/l)	LONG TERM AVERAGES CHRONIC AQU. LIFE (mg/l)	LIMITING (mg/l)	NUM SAMP PER MONTH	AML STD DEV σ-η	AQUATIC LIFE AVG. MONTHLY MLTP.	AQUATIC LIFE MAX. DAILY MLTP.	AQUATIC LIFE AVG. MO. LIMITS (mg/l)	AQUATIC LIFE MAX. DAY LIMITS (mg/l)
Zinc				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Iron					1.6000	0.60	0.55451	0.29356	0.32	0.53		0.7912	0.7912	2	0.40683	1.80	3.11	1.4222	2.4640
Aluminum				2.2670	2.2670	0.60	0.55451	0.29356	0.32	0.53	0.7279	1.1957	0.7279	2	0.40683	1.80	3.11	1.3085	2.2670
Chlorides				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Selenium				0.0200	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0064	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000

HUMAN HEALTH PROTECTION:

PARAMETER	WEST VIRGINIA WQS HUMAN HEALTH (A) (mg/l)	WEST VIRGINIA WQS HUMAN HEALTH (C) (mg/l)	LIMITING (mg/l)	STREAM BKGRD CONC. (mg/l)	WLA HH (mg/l)	EFFLUENT CV	NUM SAMP PER MONTH	sigma	sigma-n	(sigma)2	(sigma-n)2	MAX. DAILY MLTP.	HUMAN HEALTH AVG. MO. LIMITS (mg/l)	HUMAN HEALTH MAX. DAY LIMITS (mg/l)
Iron					1.5000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	1.5000	2.5988
Chlorides					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Manganese					2.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	2.0000	3.4650
Selenium					0.0500	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0500	0.0866

FINAL WQBELs

PARAMETER	AVG. MO. EFFLUENT LIMITS (mg/l)	MAX. DAY EFFLUENT LIMITS (mg/l)
Iron	1.4222	2.4640
Chlorides	0.0000	0.0000
Manganese	2.0000	3.4650
Zinc	0.0000	0.0000
Aluminum	1.3085	2.2670
Selenium	0.0000	0.0000

AQUATIC LIFE PROTECTION:

Outlets: _____

STREAM: HARDNESS: 100 (mg/l as CaCO3) EFF. Q: (MGD)

ln(hrd) = 4.605170186

PARAMETER	WEST VIRGINIA WQS ACUTE AQU. LIFE (mg/l)	WEST VIRGINIA WQS CHRONIC AQU. LIFE (mg/l)	STREAM BKGRD CONC. (mg/l)	WASTELOAD ALLOCATION ACUTE AQU. LIFE (mg/l)	WASTELOAD ALLOCATION CHRONIC AQU. LIFE (mg/l)	EFFLUENT CV	ACUTE STD DEV σ	CHRONIC STD DEV σ-4	WLA ACUTE MLTP.	WLA CHRONIC MLTP.	LONG TERM AVERAGES ACUTE AQU. LIFE (mg/l)	LONG TERM AVERAGES CHRONIC AQU. LIFE (mg/l)	LIMITING (mg/l)	NUM SAMP PER MONTH	AML STD DEV σ-η	AQUATIC LIFE AVG. MONTHLY MLTP.	AQUATIC LIFE MAX. DAILY MLTP.	AQUATIC LIFE AVG. MO. LIMITS (mg/l)	AQUATIC LIFE MAX. DAY LIMITS (mg/l)
Zinc				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Iron					0.0000	0.60	0.55451	0.29356	0.32	0.53		0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Aluminum				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Chlorides				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Selenium				0.0200	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0064	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000

HUMAN HEALTH PROTECTION:

PARAMETER	WEST VIRGINIA WQS HUMAN HEALTH (A) (mg/l)	WEST VIRGINIA WQS HUMAN HEALTH (C) (mg/l)	LIMITING (mg/l)	STREAM BKGRD CONC. (mg/l)	WLA HH (mg/l)	EFFLUENT CV	NUM SAMP PER MONTH	sigma	sigma-n	(sigma)2	(sigma-n)2	MAX. DAILY MLTP.	HUMAN HEALTH AVG. MO. LIMITS (mg/l)	HUMAN HEALTH MAX. DAY LIMITS (mg/l)
Iron					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Chlorides					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Manganese					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Selenium					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0500	0.0866

FINAL WQBELs

PARAMETER	AVG. MO. EFFLUENT LIMITS (mg/l)	MAX. DAY EFFLUENT LIMITS (mg/l)
Iron	0.0000	0.0000
Chlorides	0.0000	0.0000
Manganese	0.0000	0.0000
Zinc	0.0000	0.0000
Aluminum	0.0000	0.0000
Selenium	0.0000	0.0000

2014-0065720232O

BWQ INFORMATION

DATE BWQ WAS ASSIGNED:	7-18-02								
BWQ STATION ID:	BWQ-20/2642-50								
MAJOR STREAM BASIN:	Guyandotte River								
MINOR STREAM BASIN:	Dingess Run								
IMMEDIATE RECEIVING STREAM:	Ethel Hollow								
REACHSHED SHEDCODE ID (16 digit):	05070101002642-50								
DNR STREAM CODE:									
IS THIS BWQ LOCATED IN A TROUT STREAM? (Yes or No)	NO								
IS THIS BWQ STATION LOCATED WITHIN 5 MILES OF A SURFACE WATER INTAKE THAT IS BEING USED FOR HUMAN CONSUMPSTION ? (Yes or No)	NO								
DRAINAGE AREA OF REACHSHED (enter either sq miles or acres)	4.83	sq miles		acres	3089.34				
7Q10 FLOW (enter in cfs only)	0.3900		**CFS ONLY**						
LIST ALL PARAMETERS FOR WHICH BWQ IS TO BE ESTABLISHED	Flow	pH	Fe	Mn	Tot. Al	Diss. Al	Se	OTHER	OTHER
CHECK THE PARAMETER(S) FOR WHICH THIS STREAM IS LISTED IMPAIRED (303d List, TMDL, etc)	☐	☐	☐	☐	☐	☐	☐	☐	☐
CHECK THE PARAMETER(S) THAT HAVE A COMPLETED DOWNSTREAM TMDL			☑	☐	☐	☐	☐	☐	☐
AGENCY ASSIGNING BWQ:	DMR / DEP								
DEP CONTACT / PHONE No.:	Erin Johnston								
BWQ GENERATOR / PHONE No.:									
CONSULTANT / PHONE No.:	Acculab								
LATITUDE	DEG		37.0	MIN	51.0	SEC	57.0		
LONGITUDE	DEG		81.0	MIN	54.0	SEC	45.0		
ANTICIPATED DATE TO BEGIN COLLECTION:									

Comments:

2014-00657202320

BWQ ANALYSIS

	DATE SAMPLED	FLOW (CFS)	pH (su)	TOTAL FE (mg/l)	TOTAL MN (mg/l)	TOTAL AL (mg/l)	DISS AL (mg/l)	TOTAL SE (mg/l)	OTHER (mg/l)	OTHER (mg/l)	OTHER (mg/l)	RAIN GAUGE INFORMATION Prior 24 hrs (inch)		Prior 48 hrs (inch)		Prior 72 hrs (inch)	
				ND	ND	ND	ND	ND	ND	ND	ND						
1	1/19/2012	5.15	7.80	0.1100	0.0100	0.0920	0.0100	0.0010000									
2	1/31/2012	4.33	7.80	0.1200	0.0100	0.0970	0.0100	0.0010000									
3	2/20/2012	5.79	7.80	0.1600	0.0100	0.0800	0.0100	0.0010000									
4	2/29/2012	5.26	7.90	0.6600	0.0300	0.1600	0.0100	0.0021100									
5	3/6/2012	6.00	7.90	0.2900	0.0100	0.0100	0.0100	0.0010000									
6	3/23/2012	5.44	8.00	0.3600	0.0500	0.0620	0.0100	0.0031100									
7	4/19/2012	4.53	8.40	0.1900	0.0100	0.0280	0.0100	0.0028400									
8	4/30/2012	5.32	8.00	0.0250	0.0100	0.0380	0.0100	0.0010000									
9	5/16/2012	2.18	8.70	0.0250	0.0100	0.0340	0.0100	0.0010000									
10	5/31/2012	2.93	8.10	0.0700	0.0100	0.0100	0.0100	0.0010000									
11	6/5/2012	3.78	8.10	0.0250	0.0100	0.1100	0.0100	0.0022000									
12	6/27/2012	1.18	8.00	0.0250	0.0300	0.0250	0.0100	0.0010000									
13	7/16/2012	3.01	7.90	0.0250	0.0100	0.1500	0.0100	0.0010000									
14	7/31/2012	2.31	7.90	0.1300	0.0100	0.1070	0.0100	0.0001000									
15	8/20/2012	1.52	8.40	0.0800	0.0100	0.0100	0.0100	0.0010000									
16	8/30/2012	1.00	8.40	0.0250	0.0100	0.0100	0.0100	0.0010000									
17	9/17/2012	0.97	8.20	0.0800	0.0500	0.0420	0.0100	0.0010000									
18	9/27/2012	1.48	8.30	0.1100	0.0100	0.0760	0.0100	0.0010000									
19	10/17/2012	1.23	8.20	0.0800	0.0100	0.0100	0.0100	0.0010000									
20	10/31/2012	4.08	7.80	0.0900	0.0100	0.1230	0.0290	0.0010000									
21	11/19/2012	2.22	8.20	0.0250	0.0100	0.0100	0.0100	0.0010000									
22	11/30/2012	1.84	8.00	0.0600	0.0100	0.0450	0.0100	0.0010000									
23																	
24																	
25																	
26																	
27																	
28																	
29																	
30																	
31																	
32																	
33																	
34																	
MDL (mg/l) used for analysis:				0.05000	0.02000	0.02000	0.02000	0.0020000									
AVERAGE				0.12568	0.01545	0.06041	0.01086	0.0012436									

NOTE: PROVIDE THE MDL BEING USED IN THE ANALYSIS FOR EACH PARAMETER REPORTED. REPORT ALL "**NON-DETECT**" ANALYSIS AS HALF OF THE MDL OR AS **ND**. ***DO NOT*** REPORT ANY VALUE USING A LESS THAN (<) SYMBOL.

2014-00657202320

SUPPLEMENTAL ANALYSIS

	DATE SAMPLED	SC µS/cm	TDS ppm	SULFATE ppm ND	TSS ppm ND	TURBIDITY (mg/l) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	Other (unit) ND	COLLECTION CONDITIONS WEATHER CONDITIONS Prior 24 hrs	STREAM APPEARANCE CLARITY	STREAM FLOW SIZE
1	1/19/2012	297.00		38.00										
2	1/31/2012	327.00		34.00										
3	2/20/2012	314.00		204.00										
4	2/29/2012	343.00		46.00										
5	3/6/2012	308.00		38.00										
6	3/23/2012	368.00		53.00										
7	4/19/2012	550.00		51.00										
8	4/30/2012	297.00		49.00										
9	5/16/2012	500.00		39.00										
10	5/31/2012	606.00		60.00										
11	6/5/2012	524.00		19.00										
12	6/27/2012	685.00		79.00										
13	7/16/2012	566.00		71.00										
14	7/31/2012	548.00		66.00										
15	8/20/2012	652.00		71.00										
16	8/30/2012	647.00		59.00										
17	9/17/2012	683.00		75.00										
18	9/27/2012	684.00		94.00										
19	10/17/2012	682.00		76.00										
20	10/31/2012	252.00		30.00										
21	11/19/2012	619.00		57.00										
22	11/30/2012	667.00		57.00										
23														
24														
25														
26														
27														
28														
29														
30														
31														
32														
33														
34														
LOW		252.00		19.00										
HIGH		685.00		204.00										
AVERAGE		505.41		62.09										

2014-00657202320

ALUMINUM TRANSLATOR

SAMPLE DATE	TOTAL AL mg/l	DISSOLVED AL mg/l	ALUMINUM TRANSLATOR
1/19/2012	0.0920	0.0100	0.1087
1/31/2012	0.0970	0.0100	0.1031
2/20/2012	0.0800	0.0100	0.1250
2/29/2012	0.1600	0.0100	0.0625
3/6/2012	0.0100	0.0100	
3/23/2012	0.0620	0.0100	0.1613
4/19/2012	0.0280	0.0100	0.3571
4/30/2012	0.0380	0.0100	0.2632
5/16/2012	0.0340	0.0100	0.2941
5/31/2012	0.0100	0.0100	
6/5/2012	0.1100	0.0100	0.0909
6/27/2012	0.0250	0.0100	0.4000
7/16/2012	0.1500	0.0100	0.0667
7/31/2012	0.1070	0.0100	0.0935
8/20/2012	0.0100	0.0100	
8/30/2012	0.0100	0.0100	
9/17/2012	0.0420	0.0100	0.2381
9/27/2012	0.0760	0.0100	0.1316
10/17/2012	0.0100	0.0100	
10/31/2012	0.1230	0.0290	0.2358
11/19/2012	0.0100	0.0100	
11/30/2012	0.0450	0.0100	0.2222
AVERAGE	**0.0604**	**0.0109**	**0.1846**
95th PERCENTILE			**0.3679**

Since this is a proposed operation, no outlets have been constructed and the mix of the discharge(s) with the receiving stream cannot be measured yet. Therefore, the 95th Percentile shall be applied.

Dissolved Aluminum Criteria =	0.7500
CF = Conversion Factor (CF for Aluminum is 1) =	1.00
Translator (95th Percentile) =	0.3679

Total Aluminum Criteria (TAC) = $\frac{\text{Dissolved Aluminum Criteria x CF}}{\text{Translator}}$

TAC = $\frac{0.7500 \times 1}{0.3679}$

TAC = 2.0388

WASTELOAD ALLOCATION & ASSIMILATIVE CAPACITY WORKSHEET

Company/Facility Name

NPDES PERMIT No.	WV 1019805	Art. 3 PERMIT No.	S-5035-08
App Type & Seq #	New	App Type & Seq #	SMA

BWQ Station ID:	BWQ-20/2642-50	Shedcode ID:	05070101002642-50	DNR Stream Code	0
Immediate Stream:	Ethel Hollow	Minor Basin	Dingess Run	Major Basin	Guyandotte River
Trout Stream ?	NO	BWQ Located within five miles of a surface water intake ?			NO
Will the proposed outlet(s) be a non-precipitation induced (pumped) discharge?				○ YES	◉ NO
Total Drainage Area Monitored at BWQ Station			QT =	3089.3440	ACRES
Total Drainage Area Controlled By Outlets			Q2 =	345.2800	ACRES
Total Non-affected Drainage Area		(Q1 = QT - Q2)	Q1 =	2744.0640	ACRES

PARAMETERS OF CONCERN	Baseline (C_1)	Water Quality Criteria (WQC)		APPLIED WQC
	(Mg/l)	Trout (Mg/l)	Non-Trout (Mg/l)	(Mg/l)
Total Iron (Fe)	0.1257	1.00	1.50	1.5000
Total Manganese (Mn)	0.0155	NA	NA	NA
Dissolved Aluminum (Al)	0.0109	0.087	0.750	0.7500
Total Aluminum (Al)	0.0604	TRANSLATOR CALCULATED (TAC) =		2.0388
Total Selenium (Se)	0.0012	0.005	0.005	0.0050
Other				0.0000

CALCULATING WASTELOAD ALLOCATIONS (WLA)

PARAMETERS OF CONCERN		$C_T = (WQC - C_1)\ AC + C_1$		$C_2 = [(C_T Q_T) - (C_1 Q_1)] / Q_2$	
Total Iron (Fe)	☐ NO	C_T =	0.26311	C_2 =	1.3553
Total Manganese (Mn)	☐ NO	C_T =	NA	C_2 =	2.0000
Total (Diss) Aluminum (Al)	☐ NO	C_T =	0.25825	C_2 =	1.8306
Total Selenium (Se)	☐ NO	C_T =	0.00162	C_2 =	0.0046
Other	☐ NO	C_T =	0.0000	C_2 =	0.0000

CHOOSE WHICH WASTELOAD (AVERAGE C2 VALUE) TO APPLY

PARAMETERS OF CONCERN	ALTERNATE	CALC	CRITERIA	TECH	SUGGESTED	ASSIGN C2
Total Iron (Fe)	0.0000	1.3553	1.5000	3.200	Assign 1.3553	1.3553
Total Manganese (Mn)	0.0000	2.0000	NA	2.000	Assign 2	2.0000
Total (Diss) Aluminum (Al)	0.0000	1.8306	2.0388	6.000	Assign 1.8306	0.6774
Total Selenium (Se)	0.0000	0.0046	0.0050	NA	Assign 0.0046	
Other	0.0000	0.0000	0.0000		Assign 0	

ASSIMILATIVE CAPACITY (AC) CALCULATIONS

PARAMETERS OF CONCERN	Stream Tier Status	Tot % AC Allotted	% AC Available for This Use	Total % AC Being Used	Total Remaining Assimilative Cap
Total Iron (Fe)	Tier 2	19.9999	9.9999	9.9999	10.0000
Total Manganese (Mn)	Tier 1	0.0000	0.0000	0.0000	0.0000
Total (Diss) Aluminum (Al)	Tier 2	19.9999	9.9999	3.7004	16.2995
Total Selenium (Se)	Tier 2	19.9999	9.9999	0.0000	19.9999
Other	-	0.0000	9.9999	0.0000	0.0000

OUTLET INFORMATION

OUTLET No.	DRAINAGE AREA (ACRES)	FLOW RATE MAX (CFS)	EXCLUDE	ASSIGN ALTERNATE LOAD Fe (mg/l)	Mn (mg/l)	Al (mg/l)	Se (mg/l)	Other (mg/l)
001	257.40	699.6700	☐					
002	8.11	19.2800	☐					
003	5.81	12.8800	☐					
004	22.38	42.9100	☐					
005	45.79	92.5100	☐					
006	5.79	10.3000	☐					

TOTAL DRAINAGE AREA CONTROLLED THROUGH OUTLETS = 345.28 ACRES

TOTAL MAX FLOW TO BE DISCHARGED FROM OUTLETS = 877.5500 CFS

	Fe	Mn	Al	Se	Other
ALTERNATE CALCULATED WASTELOAD =	0.0000	0.0000	0.0000	0.0000	0.0000

COMMENTS

WATER QUALITY BASED EFFLUENT LIMITATIONS: Company/Facility Name

NPDES PERMIT No. WV 1019805 Art. 3 PERMIT No. S-5035-08

App Type & Seq # New App Type & Seq # SMA

For Outlets: 001-006

AQUATIC LIFE PROTECTION:

STREAM: HARDNESS: 100 (mg/l as CaCO3) EFF. Q: (MGD)

ln(hrd) = 4.605170186

PARAMETER	WEST VIRGINIA WQS ACUTE AQU. LIFE (mg/l)	WEST VIRGINIA WQS CHRONIC AQU. LIFE (mg/l)	STREAM BKGRD CONC. (mg/l)	WASTELOAD ALLOCATION ACUTE AQU. LIFE (mg/l)	WASTELOAD ALLOCATION CHRONIC AQU. LIFE (mg/l)	EFFLUENT CV	ACUTE STD DEV σ	CHRONIC STD DEV σ-4	WLA ACUTE MLTP.	WLA CHRONIC MLTP.	LONG TERM AVERAGES ACUTE AQU. LIFE (mg/l)	LONG TERM AVERAGES CHRONIC AQU. LIFE (mg/l)	LIMITING (mg/l)	NUM SAMP PER MONTH	AML STD DEV σ-η	AQUATIC LIFE AVG. MONTHLY MLTP.	AQUATIC LIFE MAX. DAILY MLTP.	AQUATIC LIFE AVG. MO. LIMITS (mg/l)	AQUATIC LIFE MAX. DAY LIMITS (mg/l)
Zinc				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Iron					1.3553	0.60	0.55451	0.29356	0.32	0.53		0.7148	0.7148	2	0.40683	1.80	3.11	1.2850	2.2263
Aluminum				0.6774	0.6774	0.60	0.55451	0.29356	0.32	0.53	0.2175	0.3573	0.2175	2	0.40683	1.80	3.11	0.3910	0.6774
Chlorides				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Selenium				0.0200	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0064	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000

HUMAN HEALTH PROTECTION:

PARAMETER	WEST VIRGINIA WQS HUMAN HEALTH (A) (mg/l)	WEST VIRGINIA WQS HUMAN HEALTH (C) (mg/l)	LIMITING (mg/l)	STREAM BKGRD CONC. (mg/l)	WLA HH (mg/l)	EFFLUENT CV	NUM SAMP PER MONTH	sigma	sigma-n	(sigma)2	(sigma-n)2	MAX. DAILY MLTP.	HUMAN HEALTH AVG. MO. LIMITS (mg/l)	HUMAN HEALTH MAX. DAY LIMITS (mg/l)
Iron					1.3553	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	1.3553	2.3481
Chlorides					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Manganese					2.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	2.0000	3.4650
Selenium					0.0500	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0500	0.0866

FINAL WQBELs

PARAMETER	AVG. MO. EFFLUENT LIMITS (mg/l)	MAX. DAY EFFLUENT LIMITS (mg/l)
Iron	1.2850	2.2263
Chlorides	0.0000	0.0000
Manganese	2.0000	3.4650
Zinc	0.0000	0.0000
Aluminum	0.3910	0.6774
Selenium	0.0000	0.0000

AQUATIC LIFE PROTECTION: Outlets: _____

STREAM: HARDNESS: 100 (mg/l as CaCO3) EFF. Q: (MGD)

ln(hrd) = 4.605170186

PARAMETER	WEST VIRGINIA WQS ACUTE AQU. LIFE (mg/l)	WEST VIRGINIA WQS CHRONIC AQU. LIFE (mg/l)	STREAM BKGRD CONC. (mg/l)	WASTELOAD ALLOCATION ACUTE AQU. LIFE (mg/l)	WASTELOAD ALLOCATION CHRONIC AQU. LIFE (mg/l)	EFFLUENT CV	ACUTE STD DEV σ	CHRONIC STD DEV σ-4	WLA ACUTE MLTP.	WLA CHRONIC MLTP.	LONG TERM AVERAGES ACUTE AQU. LIFE (mg/l)	LONG TERM AVERAGES CHRONIC AQU. LIFE (mg/l)	LIMITING (mg/l)	NUM SAMP PER MONTH	AML STD DEV σ-η	AQUATIC LIFE AVG. MONTHLY MLTP.	AQUATIC LIFE MAX. DAILY MLTP.	AQUATIC LIFE AVG. MO. LIMITS (mg/l)	AQUATIC LIFE MAX. DAY LIMITS (mg/l)
Zinc				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Iron					0.0000	0.60	0.55451	0.29356	0.32	0.53		0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Aluminum				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Chlorides				0.0000	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0000	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000
Selenium				0.0200	0.0000	0.60	0.55451	0.29356	0.32	0.53	0.0064	0.0000	0.0000	2	0.40683	1.80	3.11	0.0000	0.0000

HUMAN HEALTH PROTECTION:

PARAMETER	WEST VIRGINIA WQS HUMAN HEALTH (A) (mg/l)	WEST VIRGINIA WQS HUMAN HEALTH (C) (mg/l)	LIMITING (mg/l)	STREAM BKGRD CONC. (mg/l)	WLA HH (mg/l)	EFFLUENT CV	NUM SAMP PER MONTH	sigma	sigma-n	(sigma)2	(sigma-n)2	MAX. DAILY MLTP.	HUMAN HEALTH AVG. MO. LIMITS (mg/l)	HUMAN HEALTH MAX. DAY LIMITS (mg/l)
Iron					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Chlorides					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Manganese					0.0000	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0000	0.0000
Selenium					0.0500	0.60	2	0.5545	0.4068	0.3075	0.1655	1.73	0.0500	0.0866

FINAL WQBELs

PARAMETER	AVG. MO. EFFLUENT LIMITS (mg/l)	MAX. DAY EFFLUENT LIMITS (mg/l)
Iron	0.0000	0.0000
Chlorides	0.0000	0.0000
Manganese	0.0000	0.0000
Zinc	0.0000	0.0000
Aluminum	0.0000	0.0000
Selenium	0.0000	0.0000

2014-0065720232O

WVDEP - ERIS (OWR) Release : 2013-01-14 - [Customer Account Register]

File Maintenance Actions Reports Window Help

Select Invoice Date

From: 01/17/2012 To: 01/17/2013

Select Item and Enter Data

Responsible Party ARACOMA COAL COMPANY INC

ARACOMA COAL COMPANY INC

☑	08/07/2012		Groundwater Protection Fee	U500699	285210		$100.00	GW-Surface Mining/Coal (DMR)	ALMA NO. 1	AR
☑	08/07/2012		Groundwater Protection Fee	U501091	285210		$100.00	GW-Surface Mining/Coal (DMR)		AR
☑	08/07/2012		Groundwater Protection Fee	U501098	285210		$100.00	GW-Surface Mining/Coal (DMR)	LOWER STOCKTON DEEP MINE	AR
☑	08/07/2012		Groundwater Protection Fee	U502006	285210		$100.00	GW-Surface Mining/Coal (DMR)	LAUREL CREEK MINE #8	AR
☑	08/07/2012		Groundwater Protection Fee	U502107	285210		$100.00	GW-Surface Mining/Coal (DMR)	Proposed Laurel Creek Mine No.	AR
☑	08/07/2012		Groundwater Protection Fee	U502190	285210		$100.00	GW-Surface Mining/Coal (DMR)		AR
☑	08/07/2012		Groundwater Protection Fee	U502791	285210		$100.00	GW-Surface Mining/Coal (DMR)	EAST FORK MINE #1	AR
☑	08/07/2012		Groundwater Protection Fee	U503008	285210		$100.00	GW-Surface Mining/Coal (DMR)	UPPER CEDAR GROVE DEEP MINE NO	AR
☑	08/07/2012		Groundwater Protection Fee	U505192	285210		$100.00	GW-Surface Mining/Coal (DMR)	MESSENGER BRANCH MINE NO. 1	AR
☑	08/07/2012		Groundwater Protection Fee	U507292	285210		$100.00	GW-Surface Mining/Coal (DMR)	WEST FORK NO.3 DEEP MINE & PUN	AR
☑	08/07/2012		Groundwater Protection Fee	U507692	285210		$100.00	GW-Surface Mining/Coal (DMR)	COOPERAS MINES NO. 1,2,3 & 4	AR
	08/27/2012		Check - WVTreasury	Fims-001900689	285210	$2,300.00				AR
☑	08/10/2012	08/01/2012	WVNPDES Annual Permit Fee (C	WV1021001	285865		$1,000.00	WVNPDES Annual Coal (DMR)	Laurel Creek Mine No. 5	AR
	08/30/2012		Check - 1120789	Fims-1902214	285865	$1,000.00				AR
☑	09/10/2012	09/01/2012	WVNPDES Annual Permit Fee (C	WV1020102	288934		$1,000.00	WVNPDES Annual Coal (DMR)	Hemshaw (Chilton) No. 1 Mine	AR
	09/21/2012		Check - 0001126358	Fims-1909184	288934	$1,000.00				AR
☑	10/10/2012	10/01/2012	WVNPDES Annual Permit Fee (C	WV1004611	289760		$1,000.00	WVNPDES Annual Coal (DMR)	8 C DEEP MINE	AR
☑	10/10/2012	10/01/2012	WVNPDES Annual Permit Fee (C	WV1020501	289760		$1,000.00	WVNPDES Annual Coal (DMR)	5-BLOCK DEEP MINE	AR
	10/24/2012		Check - 1134897	Fims-1920221	289760	$2,000.00				AR
☑	11/09/2012	11/01/2012	WVNPDES Annual Permit Fee (C	WV1010689	291653		$1,000.00	WVNPDES Annual Coal (DMR)	PRINCESS ARACOMA DEEP MINE	AR
☑	11/09/2012	11/01/2012	WVNPDES Annual Permit Fee (C	WV1020340	291653		$1,000.00	WVNPDES Annual Coal (DMR)	BEE HOLLOW DEEP MINE	AR
	11/27/2012		Check - 1142437	Fims-1929796	291653	$2,000.00				AR
☑	12/10/2012	12/01/2012	WVNPDES Annual Permit Fee (C	WV1008251	293369		$1,000.00	WVNPDES Annual Coal (DMR)	DINGESS SURFACE MINE	AR
	12/20/2012		Check - 1148271	Fims-1937950	293369	$1,000.00				AR

As of 1/17/2013 Amount Due: $0.00

Printing Screen Image ...

Mem: 4095.0 Mb 1/17/2013 3:40 pm

UC/WC Defaulted Accounts Search Results

Sorry, no records matching your criteria were found.

FEIN:
Business name: ARACOMA COAL COMPANY INC
Doing business as/Trading as:

Please use your browsers back button to try again.

WorkforceWV	Unemployment Compensation	Offices of the Insurance Commissioner

I, the undersigned, do hereby certify that this map is correct, and shows to the best of my knowledge and belief all the information required by the West Virginia surface mining laws.

By: _____
Agent for P & A Engineers and Consultants, Inc.

No. 15183

CHARLES A. MCALONG
REGISTERED
STATE OF WEST VIRGINIA
PROFESSIONAL ENGINEER

Taken, subscribed, and sworn to me this 14th day of November, 2012

Amanda Kennedy Notary Public

My commission expires 10/22/15

AMANDA KENNEDY
My Commission Expires 10-23-2015
NOTARY PUBLIC
Notary ID # 454083
STATE AT LARGE, KENTUCKY

*The term "Certify" as used herein is defined as follows: The certification of conditions is a declaration of professional judgment and does not constitute a warranty or guarantee either expressed or implied. Nor does it relieve any other party of their obligation or responsibility to abide by applicable codes, standards, regulations, or any other applicable rules, ordinances or contract documents. Base mapping furnished by the applicant. Determination of accuracy and completeness is based on the representation of site conditions either existing or proposed.

P & A Engineers and Consultants, Inc. disavows any liability that may arise as a result of any injuries that may occur due to failure of the operator/permittee, his contractor or assigns to responsibly comply with all state and federal safety regulations, laws, and statutes and/or the operator/permittee, his contractor or assigns failure to operate and maintain equipment per the manufacturer's recommendations while implementing this mining plan.

No.	Date	Revision	By
5	06/11/09	Technical Corrections	JPS
6	03/31/10	Technical Corrections	JJ
7	07/30/10	Added Highwall Mining	KM
8	12/01/10	NPDES Corrections	SEC
9	05/31/11	Added BAS and SMS Sites	JPS
10	12/1/11	NPDES Corrections	SEC
11	04/12/12	Corrected Property Owner	JPS
12	07/09/12	Corrected BAS and SMS locations	SEC
13	11/17/12	Rev. HWM, Hatching, Rem. area beyond Mine 9 portal	CAM

File Name: Piney PD Map.dwg	
Drawn By: KM	Checked By: JPS
Contour Interval: 40' (USGS) 10' (FLIGHT)	
Scale: 1" = 500'	1 of 1
Quad: HENLAWSON	
District: LOGAN	
Counties: LOGAN	

Alpha Natural Resources
RUNNING RIGHT

Prepared By:

P&A ENGINEERS & CONSULTANTS
PO Box 279 Louisa, KY 41230

ARACOMA
COAL COMPANY
PINEY BRANCH SURFACE MINE
PERMIT NO. S-5035-08
NPDES NO. WV1019805
PROPOSAL AND DRAINAGE MAP

Attachment X EXHIBIT I-IV-A

dep	**Applicant: ARACOMA COAL COMPANY INC** **Reference ID: Piney Branch Surface Mine (10/18/2007) (10/18/2007)** **Advertisement: NPDES Issuance Advertisement**	**Type: New Application, NPDES #1** **Permit ID: WV1019805** **Status: ERIS - Pending** **Printed: Jan. 07, 2013 10:50 AM**

ADVERTISEMENT (MR-34-B)

Notice is hereby given that ARACOMA COAL COMPANY INC PO BOX 1098, Route 119/3, HOLDEN, WV 25625 has submitted an application for the **issuance** of Article 11/WVNPDES Permit No. WV1019805 to the Department of Environmental Protection, 1101 George Kostas Drive, Logan, WV 25601 in order to

operate a surface mine

in the

Upper Kittanning, Middle Kittanning, Lower Kittanning/5-Block, Clarion, Lower Clarion, Upper Stockton, Middle Stockton, Lower Stockton, Middle Coalburg, Lower Coalburg and all associated splits and riders

seam/mineral bed. The operation will discharge ☑ Treated ☐ Untreated ☑ Storm water into

unnamed tributaries of/and Pine Fork of Ethel Hollow and unnamed tributaries of/and Ethel Hollow of Dingess Run of the Guyandotte River

of Upper Guyandotte River and is located 1.1 (miles), northeast of Ethel, in Logan District(s) of Logan County(ies), Longitude 81 ° 53 ' 27 " and Latitude 37 ° 53 ' 12 " (Coordinates from USGS Topographic Map).

The Department of Environmental Protection is seeking information on private surface water intakes for human consumption located in the above listed receiving streams and located down stream of this operation. Please provide your name, phone number, mailing address, the name of the stream being with the intake, and the physical location of the intake. This information needs to be submitted to the address above.

An anti-degradation review has been conducted. Tier 1 protection is afforded because effluent limitations ensure compliance with water quality criteria for all designated uses. Tier 2 protection is also afforded because the agency has made a determination that the discharge(s) will not cause significant degradation to the receiving stream(s) for any parameters of concern.

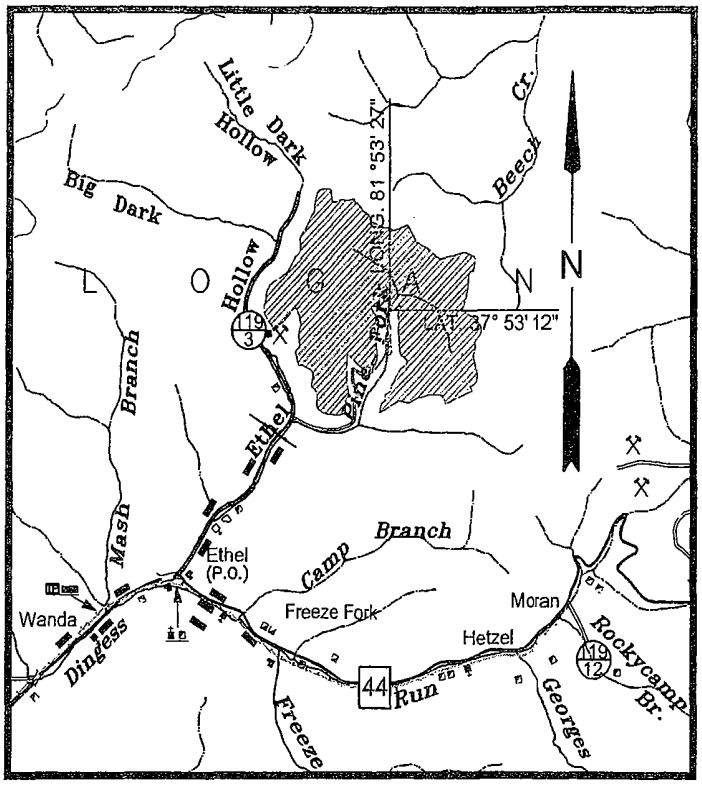
Comments on the Article 11 WV/NPDES application or requests for a public hearing regarding the Article 11/NPDES application shall be in writing and if a public hearing is requested shall state the nature of the issues proposed to be raised in the hearing. Such written comments or requests should be sent to the Department of Environmental Protection (DEP) at the address above, and must also reference the Article 11/NPDES permit number shown above. Comments received by , or thirty (30) days from date of publication, will be considered. A copy of the Article 11/WVNPDES application, draft permit and fact sheet (if required) will be available for inspection and obtaining copies during normal business hours at the DEP Regional Office located at the address above.

DEP Telephone No. 304-792-7250 Article 11/NPDES Permit No. WV1019805

LOCATION MAP

Each ad must include a clear and accurate location map of a scale and detail found in the West Virginia General Highway Map. The map size must be at a minimum four (4) inches by four (4) inches with the following shown on the map:

1. Clearly define the approximate limits of the proposed permit area.
2. Longitude and latitude lines must cross at or near the center of the proposed permit area.
3. A north arrow must be shown.
4. A map to scale.
5. District(s).
6. County(ies).
7. Associated SMCRA Application/Permit Number(s)



LOCATION MAP – Logan County, Logan District
Receiving Streams: Pine Fork and unnamed tributaries of Pine Fork of Ethel Hollow and unnamed tributaries of/and Ethel Hollow of Dingess Run of the Guyandotte River
Major Sub-Basins: Ohio River
Nearest Post Office: Ethel, WV
Direction to Operation from Nearest Post Office: 1.1 Miles Northeast of Ethel, WV
Scale: 1" = 1 Mile Permit No.: WV1019805