COMMONWEALTH OF VIRGINIA

Department of Mines, Minerals and Energy

Division of Mined Land Reclamation

NPDES Permit Number: 0081966
Associated CSMO Permit Number: 1101966
Permit Application Number: 1009058

Permit Original Issue Date: 12/29 /1983
Application Approval Date: 8/12/2016
Expiration Date: 12/29/2018

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM AND THE VIRGINIA STATE WATER CONTROL LAW

Pursuant to Authority under Section 45.1 -254 of the Code of Virginia, as amended, and the Virginia Pollutant Discharge Elimination System (VPDES) Regulation, Part X - Delegation of Authority to the Department of Mines, Minerals and Energy for Coal Surface Mining Operations (9VAC25-31-940), the following owner is authorized to discharge from the facility listed below in compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto and in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A, B, C, and D of this permit and the plans and requirements found in joint CSMO/NPDES permit number 1101966/0081966 and any and all subsequent approved permitting actions. For the purpose of this permit, NPDES and VPDES permits are synonymous.

Owner: TWIN STAR MINING, INC.
Facility Name: LOWER ELK CREEK STRIP
County: BUCHANAN
Facility Location: 4.7 MILES NE OF HURLEY ON LOWER/MID/UPPER ELK CRK

The owner is authorized to discharge to the following receiving streams:

Stream Name	Stream Basin	Stream Subbasin	Stream Tier
BUFFALO FORK	BIG SANDY	TUG FORK - KNOX CK	Tier I
MIDDLE ELK CREEK	BIG SANDY	TUG FORK - KNOX CK	Tier I
ANDY TRENT BRANCH (KY)	NA	NA	Tier II
LOWER ELK CREEK	BIG SANDY	TUG FORK - KNOX CK	Tier I
UPPER ELK CREEK	BIG SANDY	TUG FORK - KNOX CK	Tier I
LONG BRANCH	BIG SANDY	TUG FORK - LONG BRANCH	Tier II

Randy Carey
Director, Division of Mined Land Reclamation

11/30/16
Date

Permit Contents

The complete joint CSMO/NPDES permit consists of the following:

I. The approved CSMO/NPDES Permit Application, and any and all subsequent approved permit revisions, renewals, midterms, anniversary reports, completion reports, and DMLR administrative actions.

II. The CSMO/NPDES Permit Document, including
Permit Signature Page
Section A – Effluent Limitations and Monitoring Requirements
Section B – Schedule of Compliance (if applicable)
Section C – Standard Terms and Conditions
Section D – Other Requirements

Facility Information

Permittee Name: TWIN STAR MINING, INC.
Address: P. O. BOX 40
City: WHARNCLIFFE **State:** WV **Zip:** 25651
Facility: LOWER ELK CREEK STRIP
Total permit acres: 1142.52,(BUCHANAN)

Application Information:

Application Type: RENEWAL C/N

Application Description: CSMO/NPDES Permit Renewal which also extends the temporary cessation period on 29.26 acres to 06-29-2016.

NPDES Outfall Description:

NPDES outfalls associated with this permit result from the control of surface water runoff resulting from precipitation and/or groundwater discharges from coal mining activities associated with mining. Treatment facilities may include sedimentation structures, chemical treatment such as the addition of neutralizing agents or flocculants, or no treatment (in the case of direct discharge of underground mine drainage when treatment is not required to meet applicable effluent limitations). The following details describe the treatment facility or source associated with each approved outfall. Specific information regarding each outfall and facility is found in Section V and Section XII of the CSMO/NPDES permit.

Section A
Permit Requirements

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall	*Chron WET Monthly Avg*	*Chron WET AEL*	*Chron WET Sample Interval*	*Chron WET Sample Rate*
SC-004-SC-4	NA	NA	NA	NA
SC-005-SC-5	NA	NA	NA	NA
SC-006-SC-6	NA	NA	NA	NA
SC-007-SC-7	NA	NA	NA	NA
SC-008-SC-8	NA	NA	NA	NA
SC-009-SC-9	NA	NA	NA	NA
SC-010-SC-10	NA	NA	NA	NA
SC-011-SC-11	NA	NA	NA	NA
SC 020-SC-20	NA	NA	NA	NA
SC 021-SC-21	NA	NA	NA	NA
SC 022-SC-22	NA	NA	NA	NA
027-POND 27	NA	NA	NA	NA
SB-001-SB-1	NL TUc	NA	Quarter	1
SC-001-SC-1	NA	NA	NA	NA
SC-002-SC-2	NA	NA	NA	NA
SC 017-SC-17	NA	NA	NA	NA
SC-003-SC-3	NA	NA	NA	NA
SC 023-SC-23	NA	NA	NA	NA
SC 024-SC-24	NA	NA	NA	NA
SB 003-SB-3	NL TUc	NA	Quarter	1
ME-001-PD ME-001	NL TUc	NA	Quarter	1
028-POND 28	NA	NA	NA	NA

Outfall	*Selenium Monthly Avg*	*Selenium Max*	*Selenium AEL*	*Acute WET Monthly Avg*	*Acute WET AEL*	*Acute WET Sample Interval*	*Acute WET Sample Rate*
SC-004-SC-4	NA	NA	NA	NA	NA	NA	NA
SC-005-SC-5	NA	NA	NA	NA	NA	NA	NA
SC-006-SC-6	NA	NA	NA	NA	NA	NA	NA
SC-007-SC-7	NA	NA	NA	NA	NA	NA	NA
SC-008-SC-8	NA	NA	NA	NA	NA	NA	NA
SC-009-SC-9	NA	NA	NA	NA	NA	NA	NA
SC-010-SC-10	NA	NA	NA	NA	NA	NA	NA
SC-011-SC-11	NA	NA	NA	NA	NA	NA	NA
SC 020-SC-20	NA	NA	NA	NA	NA	NA	NA
SC 021-SC-21	NA	NA	NA	NA	NA	NA	NA
SC 022-SC-22	NA	NA	NA	NA	NA	NA	NA
027-POND 27	NA	NA	NA	NA	NA	NA	NA
SB-001-SB-1	NL µg/L	NL µg/L	NA	NL TUa	NA	Quarter	1
SC-001-SC-1	NA	NA	NA	NA	NA	NA	NA
SC-002-SC-2	NA	NA	NA	NA	NA	NA	NA
SC 017-SC-17	NA	NA	NA	NA	NA	NA	NA
SC-003-SC-3	NA	NA	NA	NA	NA	NA	NA
SC 023-SC-23	NA	NA	NA	NA	NA	NA	NA
SC 024-SC-24	NA	NA	NA	NA	NA	NA	NA
SB 003-SB-3	5.00 µg/L	20.00 µg/L	0.2 In	NL TUa	NA	Quarter	1
ME-001-PD ME-001	NA	NA	NA	NL TUa	NA	Quarter	1
028-POND 28	NA	NA	NA	NA	NA	NA	NA

Outfall	*TDS Monthly Avg*	*TDS Max*	*TDS AEL*	*Iron Monthly Avg*	*Iron Max*	*Iron AEL*	*Manganese Monthly Avg*	*Manganese Max*	*Manganese AEL*
SC-004-SC-4	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-005-SC-5	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-006-SC-6	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-007-SC-7	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-008-SC-8	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-009-SC-9	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-010-SC-10	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-011-SC-11	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 020-SC-20	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 021-SC-21	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 022-SC-22	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
027-POND 27	NA	NA	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SB-001-SB-1	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-001-SC-1	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-002-SC-2	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 017-SC-17	NA	NA	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC-003-SC-3	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 023-SC-23	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SC 024-SC-24	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
SB 003-SB-3	NL mg/L	NL mg/L	NA	3.0 mg/L	6.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
ME-001-PD ME-001	NL mg/L	NL mg/L	NA	3.5 mg/L	7.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In
028-POND 28	NL mg/L	NL mg/L	NA	3.5 mg/L	7.0 mg/L	0.2 In	2.0 mg/L	4.0 mg/L	0.2 In

Outfall	*Flow Monthly Avg*	*pH Monthly Avg*	*pH Min*	*pH Max*	*pH AEL*	*TSS Monthly Avg*	*TSS Max*	*TSS AEL*
SC-004-SC-4	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-005-SC-5	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-006-SC-6	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-007-SC-7	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-008-SC-8	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-009-SC-9	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-010-SC-10	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-011-SC-11	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 020-SC-20	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 021-SC-21	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 022-SC-22	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
027-POND 27	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SB-001-SB-1	NL GPM	NL Std	6.0 Std	9.0 Std	0.2 In	35 mg/L	70 mg/L	0.2 In
SC-001-SC-1	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-002-SC-2	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 017-SC-17	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC-003-SC-3	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 023-SC-23	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SC 024-SC-24	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In
SB 003-SB-3	NL GPM	NL Std	6.0 Std	9.0 Std	0.2 In	35 mg/L	70 mg/L	0.2 In
ME-001-PD ME-001	NL GPM	NL Std	6.0 Std	9.0 Std	0.2 In	35 mg/L	70 mg/L	0.2 In
028-POND 28	NL GPM	NL Std	6.0 Std	9.0 Std	NA	35 mg/L	70 mg/L	0.2 In

The following guidance and definitions apply to all approved effluent limitations, unless specifically overridden in the tables above.

A) The collection method is to be a grab sample for all measurements except for flow, which is to be a measurement or estimation.

B) The sampling frequency for all measurements except WET measurements is to be two samples collected per calendar month, collected at least seven days apart. The sampling frequency for WET measurements is to be once per calendar quarter.

C) Monthly Avg is to be the arithmetic mean of all samples collected in a calendar month. Max is to be a daily maximum and min is to be daily minimum for all measured parameters except for pH, which is to be measured as an instantaneous maximum and instantaneous minimum. All limits are followed by the units in which they are to be measured.

D) NL indicates monitoring is required with no limitations (No Limit). NA indicates the parameter does not apply to the particular outfall (Not Applicable).

E) The AEL (Alternate Effluent Limit) is the minimum rainfall event necessary for alternate effluent limitations to apply to the specified parameter for the given outfall.

F) RMR stands for Representative Monitoring Required. RWETMR stands for Representative Whole Effluent Toxicity Monitoring Required.

G) If the Virginia state water quality standard for selenium endpoint compliance on the final date of the selenium compliance schedule differs from the numeric selenium limits explicitly given in Section A, Table A, Effluent Limitations and Monitoring Requirements, the standards as they exist on the final date of the compliance schedule shall supersede those explicitly stated in Section A, Table A of this permit.

B. OTHER REQUIREMENTS

The term Department refers to the Virginia Department of Mines, Minerals, and Energy

1. This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard, limitation or prohibition for a pollutant which is promulgated or approved under Section 307(a)(2) of the Clean Water Act, if the effluent standard, limitation, or prohibition so promulgated or approved:

    a. Is more stringent than any effluent limitation on the pollutant already in the permit; or

    b. Controls any pollutant not limited in the permit.

2. This permit shall be modified or alternatively revoked and reissued if any approved waste load allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the permit requirements.

3. This permit may be modified or alternatively revoked and reissued to incorporate appropriate limits in the event effluent monitoring indicates the need for any water quality-based limits.

4. The permittee shall notify the Department as soon as they know or have reason to believe:
    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
        (1) One hundred micrograms per liter;
        (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
        (3) Five times the maximum concentration value reported for that pollutant in the permit application; or
        (4) The level established by the Board.
    b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
        (1) Five hundred micrograms per liter;
        (2) One milligram per liter for antimony;
        (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
        (4) The level established by the Board.

5. Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner and consistent with Best Management Practices, so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

6. The permittee shall monitor the effluent that is representative of outfall(s) SB-001, ME-001, SB 003 for the substances noted in Part II, Section A.E.2, Table 1 according to the indicated

analysis number, quantification level, sample type and frequency. The outfalls listed above may be representative of a group of substantially similar outfalls on this mining operation.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

All permittees with existing operations that have been assigned representative monitoring locations, either prior to or during the NPDES permit renewal/ modification process that have not submitted the effluent characterization data for those representative monitoring locations to the Division, must submit the monitoring data required in this section within sixty days of the issue date for the NPDES permit.

Sampling and analysis of the representative outfalls is also required at permit renewal.

The data shall be submitted with the discharge monitoring report for the final month of the calendar quarter in which the sampled discharge occurred. The data shall also be submitted with the materials required for permit reissuance.

Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The Department will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Part II, Section A.E.3, Table 1.

7. The permittee shall comply with the following reporting requirements for all Section A monitoring:

   a. The quantification levels (QL) shall be less than or equal to the following concentrations:

Effluent Parameter	Quantification Level
TSS	1.0 mg/l
TDS	1.0 mg/l
Iron	1.0 mg/l
Manganese	1.0 mg/l
Selenium	2.5 µg/l

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance and quality control (QA/QC) protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained with

the required precision. The permittee shall use any method in accordance with Part II Section C of this permit. The permittee shall use a VELAP certified analytical laboratory for all submitted analyses.

b. **Monthly Average** -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part II Section A of this permit condition shall be determined as follows: All concentration data below the QL given in Part II Section B.7.a will be treated as zero. All concentration data equal to or above the QL used for the analysis should be treated as reported. An arithmetic average is to be calculated using all reported data for the month, including the defined zeros. This arithmetic average must be reported on the Discharge Monitoring Report (DMR). If all measured values are below the QL used for the analysis, then the arithmetic average is to be defaulted to ½ of the QL. If a quantified report is required on the DMR and the reported monthly average concentration is less than the QL, the monthly average is to be recorded as ½ of the QL value. If a quantified report is required on the DMR and the reported monthly average is greater than the QL, the actual reported data including defined zeroes is to be used along with flow data for each sample day to determine the daily averages. The monthly average is then to be reported as the arithmetic mean of the daily averages.

Daily Maximum -- Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part II Section A of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as reported. An arithmetic mean shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages shall be reported on the DMR as the Daily Maximum. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part II Section B.7.a), the maximum value of the daily averages shall be reported numerically as ½ of the QL. If a quantified measurement is required on the DMR and the reported daily maximum is less than the QL, the daily maximum for the measured parameter is to be reported as ½ of the given QL. In all other cases, the reported daily average concentrations (including the defined zeros) and corresponding daily flows are to be used in daily mean calculations.

Single Datum - Any single datum required shall be reported numerically as ½ of the QL if it is less than the QL used in the analysis (QL must be less than or equal to the QL listed in Part II Section A.B.7.a. above). Otherwise the numerical value shall be reported.

c. **Significant Digits --** The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

C. WHOLE EFFLUENT TOXICITY TESTING:

1. Acute Monitoring: Outfall(s) None

a. The permittee shall monitor effluent that is representative of Outfall(s) None within 6 months of approval of this NPDES permit for acute toxicity tests until there are a minimum of 4 for each test required. The permittee shall perform these tests quarterly.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

The acute tests to use are:

48 Hour Static Acute test with *Ceriodaphnia dubia* (EPA Method 2002)
48 Hour Static Acute test with *Pimephales promelas* (EPA Method 2000)

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR. The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable.

b. The test dilutions should be able to determine compliance with the following endpoint:

NOAEC = 100%

c. The permittee shall submit the following information with the results of the toxicity tests:

(1) An estimate of the total volume discharged and the duration of the discharge.
(2) The time at which the discharge was initiated.
(3) The time at which sampling was initiated.

d. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

e. The assembled data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if such evaluation is requested by the permittee or if toxicity has been demonstrated over the course of sampling.

Should evaluation of the data indicate that a limit is needed, WET limits and associated compliance schedules will be imposed and the permittee may cease the toxicity tests outlined in Part II Section C.1.a.

f. If evaluation of the assembled data results in the conclusion that no limit is needed, the permittee shall perform an acute WET test for each species of each representative outfall at permit renewal as defined on the reporting schedule contained in Part II Section C.3. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

g. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

2. Acute and Chronic Monitoring: Outfalls SB-001, SB 003, ME-001

a. The permittee shall monitor effluent that is representative of Outfalls SB-001, SB 003, and ME-001 within 6 months of approval of this NPDES permit for acute and chronic toxicity tests until there are a minimum of 4 for each test required. The permittee shall perform these tests quarterly.

For new and proposed mining operations, the monitoring shall begin within six months of completion of construction of the first sedimentation basin serving any of each of these groups of substantially similar outfall locations, or as soon as a measurable discharge occurs. If the representative outfall is not constructed first or is not the first outfall of the group represented to discharge active mine drainage [Part II Section C NPDES Definitions, (B)], the first discharging outfall within a substantially similar group should be utilized. The sampled outfall will then serve as the representative outfall for this group unless otherwise determined by the Division. The permittee should send notification to the Division prior to sampling if the designated representative outfall is not utilized.

The acute tests to use are:

48 Hour Static Acute test with *Ceriodaphnia dubia* (EPA Method 2002)
48 Hour Static Acute test with *Pimephales promelas* (EPA Method 2000)

These acute tests are to be conducted using 5 geometric dilutions of effluent with a minimum of 4 replicates, with 5 organisms in each. The NOAEC (No Observed Adverse Effect Concentration), as determined by hypothesis testing, shall be reported on the DMR. The LC_{50} should also be determined and noted on the submitted report. Tests in which control survival is less than 90% are not acceptable. The chronic tests to use are:

Chronic 3-Brood Survival and Reproduction Static Renewal Test with Ce*riodaphnia dubia* (EPA Method 1002)

Chronic 7-Day Survival and Growth Static Renewal Test with *Pimephales promelas* (EPA Method 1000)

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results

which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. A retest of a non-acceptable test must be performed within 30 days of the test it is replacing. Express the test NOEC as TUc (Chronic Toxic Units), by dividing 100/NOEC for DMR reporting. Report the LC50 at 48 hours and the IC25 with the NOEC's in the test report.

b. The test dilutions should be able to determine compliance with the following endpoint:

Acute NOAEC = 100%
Chronic NOEC of 69% equivalent to a TU_C of 1.44

c. The permittee shall submit the following information with the results of the toxicity tests:

(1). Estimate of the total volume discharged and the duration of the discharge.
(2). Time at which the discharge was initiated.
(3). Time at which sampling was initiated.

d. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

e The test data will be evaluated statistically for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of Part II Section C.2.a may be discontinued.

f. If after evaluating the data, it is determined that no limit is needed, the permittee shall continue acute and chronic toxicity testing (both species) of each representative outfall at renewal, as on the reporting schedule contained in Part II Section C.3. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

g. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limits must control the toxicity of the effluent.

3. Reporting Schedule:

The permittee shall report the results of the toxicity tests on the appropriate DMR or other methods prescribed by the Department and supply one copy of the toxicity test reports specified in this Whole Effluent Toxicity Program. This data is to be provided within 30 days following the end of the calendar quarter in which the analysis was completed.

D. EVALUATION OF TMDL COMPLIANCE:

To be consistent with the assumptions and requirements of the applicable Total Maximum Daily Load (TMDL) and any mining waste load allocations contained in the TMDL, the permittee shall implement best management practices (BMPs) as established in any compliance schedule included in the permit for this facility.

The BMPs and other requirements of the compliance schedule shall serve as water quality-based effluent limitations for this facility.

TMDL Reopener Clause

This permit is subject to a TMDL Reopener Clause as described in Part II Section D TMDL Special Conditions (a).

E. STREAM MONITORING CONDITIONS:

1. To ensure protection of aquatic species and evaluate compliance with the narrative water quality standards, biological surveys are to be completed once annually during the fall collection season to determine the benthic health of Upper Elk Creek at location(s) Bas-2A and Buffalo Fork at location(s) Bas-3 and Lower Elk Creek at location(s) Bas-1, Bas-6 and Middle Elk Creek at location(s) Bas-2, Bas-5 and Long Branch at location(s) Bas-4 and as outlined in the joint CSMO/NPDES permit (Part I, Sections 8.3 and 21.2). DEQ's Virginia Stream Condition Index (VASCI) will be utilized to determine a score for each monitoring location. The Department may also consider applicable VASCI scores generated by DEQ. The stream habitat scores and chemical data will also be collected at these locations. All biologic sampling shall be done in accordance with applicable protocols as described below. Biological survey results will need to be submitted by March 1st of the next calendar year following the date the survey was conducted.

   The Department, in consultation with the applicant, will establish baseline VASCI scores for each monitoring location based on the results of biological monitoring required prior to initiation of the permitted activity. The applicant may utilize more than one same season survey collected at the designated BASs prior to the initiation of the permitted activity to establish baseline. If the aquatic ecosystem at the BASs listed above, prior to initiation of the permitted activity, is not impaired based on the VASCI score, and taking into account all potentially applicable criteria, then the acceptable future biological condition will be a VASCI score greater than or equal to 60. If the aquatic ecosystem at the assessment stations, prior to initiation of the permitted activity, is impaired based on VASCI scores, then the applicant will need to identify existing conditions within the watershed that may be contributing to the problem. A VASCI score greater than or equal to the baseline value would represent an acceptable future condition.

   In determining whether a lower VASCI score represents an unacceptable condition, the DMLR will utilize best professional judgment, including a consideration of the inherent variability of the VASCI scores. In any case, the permittee is required to engage in adaptive management to improve the biological condition of the receiving streams if the VASCI falls below the established baseline conditions listed in the Biological Monitoring Report contained in Part I, Section 8.3 of the joint permit for two consecutive same season surveys. In order to prevent biological conditions at the BASs from reaching unacceptable biological condition, the following plan will be implemented as appropriate.

   - Disturbing the smallest area at any one time during the mining operation through progressive backfilling, grading, and prompt revegetation.
   - Stabilizing the backfill material to promote a reduction in the rate and volume of runoff.
   - Diverting runoff away from disturbed areas.
   - Directing water and runoff with protected channels.
   - Using straw, mulches, vegetative filters, and other measures to reduce overland flow.
   - Reclaiming all lands disturbed by mining as contemporaneously as practicable.
   - Enhanced riparian plantings.
   - Stream restoration/enhancement as appropriate. In-stream enhancement measures may be taken such as step pools, eddy rocks, and aquatic habitat structures, if appropriate for the applicable stream reach.
   - Test overburden to determine the material that contains any constituents determined to be of concern from a receiving water quality perspective, so it can be isolated through material handling or other methods;

- Increase stream buffer zones;
- Minimize fill areas;
- Construct fills so as to minimize infiltration from precipitation events
- Conduct Toxicity Identification and/or Reduction Evaluation pursuant to EPA's TSD2
- Segregate weathered rock and return to surface;
- Expedite reclamation;
- Use natural stream restoration techniques.
- Any other measures that are identified at the time of implementation.

The benthic surveys shall be conducted annually each year in the fall season period determined by DEQ, avoiding to the maximum extent practicable times when the sample location is influenced by abnormal conditions, including drought and/or scouring flood. All biological surveys should be conducted as close to the anniversary date of the original surveys as possible. In addition, all biologic sampling shall be done in accordance with the Virginia Department of Game and Inland Fisheries scientific collection permit and DEQ's Virginia Stream Condition Index (VASCI) protocol. The DEQ has developed the following procedure.

- Conduct benthic sampling using Virginia benthic protocols including time of year restrictions for sample collection.
- Collect organisms, laboratory subsample to 300 organisms in a gridded pan.
- Identify organisms to genus level, excluding chironomids (midges)
- Collapse data to family level
- Statistically rarify data to 100 organisms; computer subsampling programs available.
- Calculate the VASCI score
- Provide raw 300 count genus-level data in electronic spreadsheet format.

2. To ensure protection of sensitive species and to evaluate compliance with the numeric water quality standards, the permittee shall conduct chemical surface water monitoring at instream locations BAS-2,BAS-3,BAS-1,BAS-4,BAS-5,BAS-2A,BAS-6 as described in Section 8.3 of the joint CSMO/NPDES permit and shown on the applicable map (Attachment 21.2.E) for the parameters listed in Table 1 of this section. This monitoring is to be conducted concurrent with the biological surveys required under item Part II Section A.E.1. Fall chemical monitoring will need to be submitted by March 1st of the next calendar year following the fall collection date. The permittee has the option of conducting metals analyses for total metals only even though instream water quality standards are based on dissolved metal concentrations. If total metal analyses concentrations exceed instream standards, the permittee may collect dissolved metal samples for those metals exceeding instream standards to confirm whether or not the instream standard has been met. Otherwise the total metals concentration will be used to determine compliance with the instream standard.

3. The data provided to satisfy Part II Section A, at a minimum, will be evaluated upon each major modification and permit renewal to determine whether permit modifications are necessary for compliance with the narrative and numeric water quality standards. Should any of the data indicate that the discharges from this operation have the potential to cause or contribute to a violation of either a numeric or narrative water quality standard, additional pollutant specific limits or whole effluent toxicity limits shall be imposed.

TABLE 1 - Parameters

Parameter
Flow (gpm)
Temperature (^{o}c)
pH (std units)
TSS (mg/L)
Specific Conductance (µS/cm)
TDS (mg/L)
Sulfates (mg/L)
Bromide (mg/L)
Chlorides (mg/L)
Aluminum (mg/L)
Iron (mg/L)
Manganese (mg/L)
Magnesium (mg/L)
Total Acidity (mg/L)
Total Alkalinity (mg/L CaCO3)
Bicarbonate Alkalinity (mg/L)
Carbonate Alkalinity (mg/L)
Hardness (mg/L CaCO3)
Total Zinc (µg /L)
Total Antimony (µg /L)
Total Arsenic (µg /L)
Total Beryllium (µg /L)
Total Cadmium (µg /L)
Total Chromium (µg /L)
Total Copper (µg /L)
Total Lead (µg /L)
Total Mercury (µg/L)
Total Nickel (µg /L)
Total Selenium (µg/L)
Total Silver (µg /L)
Total Thallium (µg /L)
Total Barium (µg/L)
Total Boron (µg/L)
Total Cobalt (µg/L)
Total Cyanide (µg/L)
Total Phenols (µg/L)
Nitrate (mg/L)
Nitrite (mg/L)
Dissolved Organic Carbon (mg/L)
Hydrogen Sulfide (mg/L)[1]

[1] This parameter need only be analyzed for underground mine discharges.

Section B
Schedule of Compliance

This permit does not include proposed or existing outfalls in any Virginia TMDL watershed(s); therefore no TMDL-related compliance schedule is required for this permit.

This permit requires a schedule of compliance for Selenium.

Selenium

The completion of all steps shall result in total compliance with all contemporary Virginia laws regarding the selenium load contributed by this permit into state waters as the laws exist at the conclusion of the compliance schedule term.

As of October 2015, the laws define numeric instream concentration standards as chronically no more than 5 micrograms of selenium per liter of water and acutely no more than 20 micrograms of selenium per liter of water. Successful compliance for this permit will be defined as meeting all Virginia instream standards for selenium as they exist on 25 September 2018.

The steps of the compliance schedule are as follows:

1. Submit Progress Reports and Continue Monitoring
   The permittee shall submit progress reports semi-annually, beginning within six months of the effective date of this permit. Semi-annual reports are due by 25 March and 25 September of each year through the life of the compliance schedule. Semi-annual reports shall include a report of progress of achievement of the current stage of compliance and monitoring data for the reporting term. Monitoring data will include selenium and flow measurements in Buffalo Fork at instream monitoring station BAS-3 and NPDES outfall SB-003. Monitoring shall be performed at least once each month for the entire compliance schedule term.

2. Investigate sources of Selenium and BMPs
   The permittee shall investigate sources of Selenium, mixing zones, and the implementation of BMPs if necessary. BMPs may include the implementation of a passive selenium treatment system or other options which are reviewed and approved by DMLR. The selected BMPs should be submitted as soon as possible, but no later than in the 25 March 2017 progress report.

3. Implement, Construct, and Evaluate BMPs
   Beginning as soon as possible but no later than 25 September 2017, the permittee shall begin implementation and/or construction of the BMPs reviewed and approved by DMLR. Verify effectiveness of BMPs after one year of implementation. If verification indicates additional BMPs are necessary, begin implementation of additional BMPs as soon as possible.

4. Meet Selenium Discharge Conditions
   Meet permit conditions as soon as possible but no later than the due date of the 25 September 2018 semiannual report, which is the final compliance date for this schedule. The permittee shall be in compliance of all Virginia instream water quality standards as they exist on this date at the furthest downstream NPDES outlet on this permit. If the selenium compliance endpoint on this date differs from the numeric selenium limits explicitly given in Section A, Table A, Effluent Limitations and Monitoring Requirements, the standards as they exist on the final date of the compliance schedule shall supersede those explicitly stated in Section A, Table A of this permit.

No later than 14 calendar days following the final compliance date identified in the compliance schedule(s) below, the permittee shall submit to DMME, either a report of progress or, in the case of specific actions being required by identified dates, a written notice of compliance or noncompliance. In the case of

noncompliance, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

Section C
Standard NPDES Permit Terms and Conditions

The term Department refers to the Virginia Department of Mines, Minerals, and Energy.

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.

B. Records.

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, excluding records of monitoring information required by this permit related to sewage sludge use and disposal activities, which shall be retained for a period of at least five years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than 30 days following the quarter in which monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

   Virginia Department of Mines, Minerals, and Energy
   Attn: Water Quality Section
   P.O. Drawer 900
   Big Stone Gap, VA 24219

2. Monitoring results shall be reported on forms provided, approved or specified by the Department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting format specified by the Department, including electronic submittal.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Department may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Department, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II Section C (F); or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II Section C (F); shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;

2. The cause of the discharge;

3. The date on which the discharge occurred;

4. The length of time that the discharge continued;

5. The volume of the discharge;

6. If the discharge is continuing, how long it is expected to continue;

7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident (details of any adverse effects on aquatic life and the known number of fish killed must also be reported to DEQ). The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Section C.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;

2. Breakdown of processing or accessory equipment;

3. Failure or taking out of service some or all of the treatment works; and

4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and

c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Department may waive the written report on a case-by-case basis for reports of noncompliance under Part II Section C.I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Part II Section I.1 or Part II Section I.2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II Section I.2.

NOTE: The immediate (within 24 hours) reports required in Part II Section C (**G, H and I) may be made to the Department's Big Stone Gap Office Enforcement Section at (276) 523-8199 (voice). For emergencies the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.**

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
   a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
      (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
      (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
   c. The alteration or addition results in a significant change in sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Applications. All permit applications shall be signed as follows:
   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term

environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Department shall be signed by a person described in Part II Section C.K.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part II Section C.K.1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part II Section C.K.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II Section C.K.2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Part II Section C.K.1 or 2 shall make the following certification:
"I certify under penalty of law that this document and all attachments were prepared under my 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."

L. <u>Duty to Comply.</u>

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Coal Surface Mining Operation permit, State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" Part II Section C. U, and "upset" (Part II Section C.V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

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 to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludge

Solids, sludge or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II Section C.U.2 and 3.

2. Notice
   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II Section C.I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
      (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      (3) The permittee submitted notices as required under Part II Section C.U.2.
   b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part II Section C.U.3.a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II Section C.V.2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;
c. The permittee submitted notice of the upset as required in Part II Section C.I; and
d. The permittee complied with any remedial measures required under Part II Section C.S.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permitted premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Coal Surface Mining Operation permit, Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

Permits are not transferable to any person except after approval of a succession application by the Department.

Z. Severability.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

AA. Water Quality Criteria Reopener

This permit may be modified or alternatively revoked and reissued to incorporate appropriate limits provided regular or conditional effluent monitoring indicates the need for any water quality-based limitations.

NPDES Permit Definitions

(A) The term “acid or ferruginous mine drainage” means mine drainage which, before any treatment, either has a pH of less than 6.0 or a total iron concentration equal to or more than 10 mg/l.

(B) The term “active mine drainage’ means the area actively being used or disturbed for the extraction, removal, or recovery of coal from its natural deposits. This excludes areas where reclamation and revegetation has been completed.

(C) The term “alkaline mine drainage” means mine drainage which, before any treatment, has a pH equal to or more than 6.0 and a total iron concentration less than 10 mg/l.

(D) “Application” means the EPA standard national forms for applying for a permit, including any additions or modifications to the forms; or forms approved by EPA for use in approved States, including any approve additions or modifications.

(E) “Approved program or approved State” means a State administered NPDES program which has been approved or authorized by EPA under 40 CFR Part 123.

(F) “Best management practices” (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs include treatment requirements, operation procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

(G) “Coal preparation plant” means a facility where coal is crushed, screened, sized, cleaned, dried, or otherwise prepared and loaded for transit to a consuming facility. “Coal preparation plant associated areas” means the coal preparation plant yards, immediate access roads, coal refuse piles, and coal storage piles and facilities. “Coal preparation plant water circuit means all pipes, channels, basins, tanks, and all other structures and equipment that convey, contain, treat, or process any water that is used in coal preparation processes within a coal preparation plant.

(H) The term “commingled discharge” means discharges of drainage from underground workings that are mixed or commingled with surface mine drainage.

(I) “Composite sample” means a combination of individual samples of wastewater taken at 1 hour intervals, for eight (8) hours (or for the duration of discharge, whichever is less), to minimize the effect of variability of the individual samples. Individual samples must be of equal volume. (Example: one (1) liter per hour.)

(J) The term “controlled discharge” means any surface mine drainage that is pumped or siphoned from the active mining area.

(K) “CWA” means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500 as amended by Public Law 95-217, and Public Law 95-576, 33 U.S.C. 1251 et seq.

(L) The “daily maximum” discharge means the total mass of a pollutant discharged during the calendar day. Where the pollutant is limited in terms other than mass, the daily maximum shall mean the average concentration or other measurement specified during the calendar day or other specified sampling day.

(M) The “instantaneous maximum” means the level not to be exceeded at any time in any grab sample.

(N) “Discharge (of a pollutant)” means any addition of any pollutant or combination of pollutants to waters of the United States from any point source; or any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

(O) “Existing source or existing discharger (in the NPDES program)” means any source which is not a new source or new discharger.

(P) “Effluent limitation” means any restriction imposed by the Director on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources into waters of the United States, the waters of the contiguous zone, or the ocean.

(Q) "Effluent limitation guideline" means a regulation published by the Administration under Section 304(b) of the CWA to adopt or revise effluent limitations.

(R) "Environmental Protection Agency (EPA)" means the United States Environmental Protection Agency.

(S) "Estimate" means to be based on technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

(T) "Grab sample" means an individual sample collected in less than 15 minutes.

(U) "Measured Flow" means any method of liquid volume measurement the accuracy of which has been previously demonstrated in engineering practices, or for which a relationship to absolute volume has been obtained.

(V) "Mine drainage" means any drainage, and any water pumped or siphoned, from an active mining area or a post-mining area. The abbreviation "ml/l" means milliliters per liter.

(W) The "monthly average" discharge means the total mass (and concentration if appropriate) of all daily discharges sampled and/or measured properly during a calendar month divided by the number of daily discharges sampled and/or measured properly during such month.

(X) The "monthly average" temperature means the arithmetic mean of temperature measurements made on an hourly basis, or mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.

(Y) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of CWA. The term includes an approved program.

(Z) "New discharger" means any building, structure, facility, or installation: (A) From which there is or may be a new or additional discharge of pollutants at a site at which on October 18, 1972, it had never discharged pollutants; (B) Which has never received a finally effective NPDES permit for discharges at that site; and (C) Which is not a "new source". This definition includes an indirect discharger, which commences discharging into waters of the United States. It also includes any existing mobile point source, such as an offshore oil drilling rig, seafood processing vessel, or aggregate plant that begins discharging at a location for which it does not have an existing permit.

(AA) "NA" means effluent limitations and monitoring requirements not required.

(BB) "NL" means no limitation on the affected parameters, however monitoring is required.

(CC) "Outfall" means a point source.

(DD) "Permit" means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of 40 CFR Parts 122, 123, and 124.

(EE) "Point source" means any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

(FF) "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials [except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. Section 2011 et seq.)], heat

wrecked or discarded equipment, rocks, sand, cellar dirt and industrial, municipal, and agriculture waste discharged into water.

(GG) The term "post-mining area" means: (1) A reclamation area or (2) the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.

(HH) The term "10-year, 24-hour precipitation event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in ten years as defined by the National Weather service and Technical Paper No. 40, "Rainfall Frequency Atlas of the U.S.," May 1961, or equivalent regional or rainfall probability information developed there from.

(II) The term "qualifying rainfall event" means the rainfall amounts as defined; active mine areas = 0.2"/24 hours, refuse areas = 2.5"/24 hours, controlled and commingled = 4.4"/24 hour.

(JJ) The term "reclamation area" means the surface area of a coal mine which has been returned to required contour and on which revegetation (specifically seeding or planting) work has commenced. The term "pre-reclamation area" means the surface area of a coal mine prior to reclamation.

(KK) The term "settleable solids" is that matter measured by the volumetric method that is determined by the following procedure: (a) fill an Imhoff cone to the one-liter mark with a thoroughly mixed sample. Allow to settle undisturbed for 45 minutes. Gently stir along the inside surface of the cone with a stirring rod. Allow to settle undisturbed for 15 minutes longer. Record the volume of settled material in the cone as milliliters per liter. The method detection limit for coal mining point sources is 0.4 ml/l.

(LL) The terms "treatment facility" and "treatment system" means all structures which contain, convey, and as necessary, physically or chemically treat coal mine drainage, coal preparation process water, surface runoff from disturbed areas, or drainage from coal preparation plant associated areas, which remove pollutants regulated by the Part from such waters. This includes all pipes, channels, ponds, basins, tanks, and all other equipment serving such structures.

(MM) The terms "underground mine drainage or discharge" mean discharges from the underground workings of underground mines until SMCRA bond release.

(NN) The "weekly average" discharge means the total concentration and mass of all daily discharges sampled and/or measured during a calendar week divided by the number of daily discharges sampled and/or measured during such week.

(OO) The term "coal refuse disposal pile" means any coal refuse deposited on the earth and intended as permanent disposal or long term storage (greater than 180 days) of such material, but does not include coal refuse deposited within the active mining area or coal refuse never removed from the active mining area.

Section D
Other Permit Requirements

NPDES Permit Special Conditions

(AA) Water Quality Monitoring

The Department may require every owner to furnish such plans, specifications, or other pertinent information as may be necessary to determine the effect of the discharge on the water quality or such information as may be necessary to accomplish the purposes of the CWA, including but not limited to chemical and biological testing. The permittee shall obtain and record such information on the receiving waters as requested by the Department. The information shall be subject to inspection by authorized State and Federal representatives and shall be submitted with such frequency and in such detail as requested by the Department.

(BB) Management Requirements

1. All discharges authorized by this NPDES permit shall be made in accordance with the terms and conditions of the permit. The Department must be notified at least thirty (30) days prior to all expansions, production increases, or process modifications that will result in new or increased discharge(s) of pollutant(s). Notification should be by submission of a new or revised CSMO/NPDES application, or, if such discharge(s) does not violate effluent limitations specified in the permit, by submission to the Department of notice of such new or increased discharge of pollutant(s). All expansions, production increases, or process modifications that will result in new or increased discharge(s) of pollutant(s) must be approved by the Department prior to implementation.

2. The discharge of any pollutant limited in the permit more frequently than, or at a level greater than that identified and authorized by this permit, shall constitute a violation of the terms and conditions of this permit.

3. The discharge of any pollutant(s) from this facility that enters into a water body with an existing and approved Total Maximum Daily Load (TMDL) must be made in compliance with the TMDL and any applicable TMDL implementation plan. If the discharge enters into a water body included on the state's current 303(d) list not having an existing and approved TMDL, the discharge of any pollutant(s) from this facility cannot be the cause of the stream's impairment and 303(d) listing.

(CC) Availability of Reports

Except for data determined to be confidential under Section 308 of the Clean Water Act (CWA), all reports prepared in accordance with the terms and conditions of this permit will be available for public inspection at the Department office. As required by the Act, effluent data will not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and in Section 62.1-44.32 of the Code of Virginia.

(DD) Permit Modification and Reissuance

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Section 301(b)(2)(C) and (D), 304 (b)(2), and 307 (a)(2) of the CWA, if the effluent standard or limitations so issued or approved:

(i) Contain different conditions or is otherwise more stringent than any effluent limitation in the permit; or

(ii) Control any pollutant not limited in the permit; or

(iii) The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act as applicable.

(iv) Immediately after EPA's promulgation of applicable standards or limitations, a draft permit incorporating the new requirements shall be sent to the permittee.

(EE) State Law

1. Compliance with this permit during its term constitutes compliance with the Virginia State Law and CWA except for any standard imposed under Section 307 of the CWA for a toxic pollutant injurious to human health.

2. State water quality standards contain an antidegradation policy that is applicable to this permit, facility, and discharge(s). Effluent limitations assigned to this permit require the operator to utilize the best available technology to treat all discharges and to protect water quality. As a condition of this permit, the permittee must take appropriate measures to comply with the antidegradation policy.

3. Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other State law or regulation or under authority preserved by Section 510 of the CWA.

(FF) Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revoked and reissued or modified in accordance with the toxic effluent standard or prohibition. Any effluent standard or prohibition established under Section 307(a) for a toxic pollutant injurious to human health is effective and enforceable by the time set forth in the promulgated standard, even absent permit modification.

(GG) Chemical Treatment

Chemical treatment is not permitted unless specified in Part I Section 5.15 of the CSMO/NPDES permit application or otherwise specifically authorized by the Department. Treatment chemicals will be utilized in accordance with manufacturer's specifications and in quantities not harmful to aquatic life.

(HH) Alternate effluent limitations applicable to precipitation events

The permit includes a condition which provides an exclusion of the TSS, total iron and total manganese concentration limitations during periods of runoff from a qualifying precipitation event as referenced in 40 CFR 434. However, TSS is required to be collected and reported for discharges utilizing the alternate effluent limit. The reported TSS analyses will be utilized by DMLR for waste load calculation only.

For discharges to TMDL watersheds with TSS identified as a stressor, the permit shall also comply with the applicable TMDL consistent with its assumptions and requirements. Best management practices requirements and/or offsets will be used to establish any necessary reductions to meet the transient/aggregate waste load allocation as established in the compliance schedule included in this permit. This requirement is in addition to the technology-based effluent limitations of 40 CFR 434.

CSMO Permit Special Conditions:

(a) Disposal of non-coal waste onsite is prohibited.

(b) Water from sediment control ponds may be used on site for the purpose of dust suppression. Dust suppression shall be carried out as a best management practice provided that ponding or direct runoff from the site does not occur during or immediately following its application. Dust suppression shall not be employed as a wastewater disposal method

(c) No disturbance is allowed within any jurisdictional waters, whether water of the United States or waters of the Commonwealth of Virginia (including jurisdictional isolated waters), without first obtaining a Section 404 of the Clean Water Act (CWA) permit from the U.S. Army Corps of Engineers and / or a Section 401 of the CWA Certification from the Virginia Department of Environmental Quality.

(d) Prior to disturbing any area not included in the approved permit an application for a permit revision / amendment must be submitted to the Department of Mines, Minerals and Energy (DMME) / Division of Mined Land Reclamation (DMLR) and the application must be approved with appropriate fees and bond submitted to DMLR.

(e) The Department shall conduct reviews of the approved permit pursuant to 4VAC25-130-774.11. Based upon the Department review DMLR may order the revision of the permit pursuant to 4VAC25-130-774.11(b) and (c).

(f) Biological surveys will be conducted in accordance with the language in Part II Section A.E Stream Monitoring Conditions of the NPDES permit.

(g) To ensure continuing decrease in TDS for the Cumulative Impact Area, best management practices (BMPs), verified offsets, and/or mitigation activities proposed in Part II Section A.D of the NPDES permit should be completed prior to or concurrent with commencement of mining on the proposed permit.

TMDL Special Conditions:

(a) TMDL Reopener Clause

This permit shall be modified or alternately revoked and reissued if any approved waste load allocation procedure, pursuant to Section 303(d) of the CWA, imposes waste load allocations, limits or other conditions on the facility that are not consistent with the requirements of this permit.

(b) Numeric Effluent Limitation - Annual Wasteloads

The permittee shall ensure that discharges from permitted point sources comply with the concentration based numeric effluent limitations assigned in Part II Section A of the joint CSMO/NPDES Permit and that permitted point source discharges shall not exceed the numeric waste loads of pollution defined in this permit.

1. Tracking of mining waste loads, waste load offsets, calculations of mining waste loads, and comparisons of mining waste loads to allocations will be performed by the Department's TMDL system. Discharges resulting in a total waste load which exceeds TMDL limits will be determined as described in the factsheet associated with this permit.

2. If the Department determines that waste loads from the permitted point sources have resulted in or will result in a waste load in excess of the TMDL WLAs, the Department will require the permittee

to conduct additional monitoring according to a schedule established by the Department. Based upon the monitoring results, the Department will confer with the permittee to develop reduction actions that may include revised and additional BMPs, as well as flow measurements and other monitoring. If within 90 days of receipt of the final required monitoring results the Department and the permittee cannot come to agreement on the necessary reduction actions and a schedule for their implementation, then the Department may modify or revoke and reissue the NPDES permit to assign permit-specific reduction actions and an implementation schedule. Failure by the permittee to comply with any such permit requirements will constitute grounds for enforcement.

(c) Waste load Offset Credit

The Department will use its existing TMDL database and software to maintain the accounting of load reduction credit tracking.

(d) NPDES Discharge Monitoring Plan

Referenced in Part II Section A

(e) Offset Monitoring Plan (if applicable)

The offset ratio for this permit is sufficient to assure that adequate pollution reductions will be accomplished without additional monitoring requirements beyond those previously identified in this joint permit.

The offset ratio is found in the TMDL Addendum in Part I Section 6.1 of the joint CSMO/NPDES permit. The minimum offset ratio is 2:1.

(f) Unanticipated Failure of Offset (if applicable)

Prior to the release of any performance bond on this permit, the Department shall determine if the permittee has completed offset requirements. The offset completion timing is outlined in Part I Section 6.1 of the joint CSMO/NPDES permit. If the permittee fails to complete the required offset, an alternative offset project must be approved by the Department and implemented prior to the release of any performance bond on this permit.

(g) Responsibility to Achieve All Effluent Limitations in Permit

The permittee shall be responsible for achieving all concentration and loading based effluent limitations assigned by this permit. The permittee shall be responsible for implementing all best management practices and/or TMDL Waste load Reduction Actions required by this permit.

(h) Best Management Practices

The permittee shall be responsible for implementing applicable BMPs as noted in DMLR Guidance Memorandum 14-05 and/or BMPs included in Sections 5.15 and 6.1 of the joint permit application.

Total Maximum Daily Load (TMDL) Compliance and Documentation:

The Department finds that the permit will comply with the approved TMDL and the TMDL Waste Load Allocation (WLA). The permit is consistent with the TMDL WLA pursuant to 40 CFR 122.44 (d)(1)(viii)(B).

VIRGINIA DIVISION OF MINED LAND RECLAMATION
Joint CSMO/NPDES Permit Factsheet
Application Number 1009058
CSMO: 1101966
NPDES: 0081966

This document gives pertinent information concerning the joint Coal Surface Mining Operation (CSMO)/ National Pollutant Discharge Elimination System (NPDES) permit listed below. This permit is being processed as a **Minor Source** industrial permit. The industrial discharge(s) result from the control of surface water runoff and/or groundwater discharges associated with coal mining activities.

The permit process consists of: developing permit limitations based upon the effluent limitations for coal mining promulgated by the U.S. Environmental Protection Agency set forth in 40 CFR 434, the State Water Quality Standards, Total Maximum Daily Load (TMDL) Regulations, and Storm Water guidelines.

The effluent limitations contained in this permit will maintain all applicable state and federal standards, including the Water Quality Standards of 9 VAC 25-260-00 et seq., the Virginia Coal Surface Mining and Reclamation Regulations, and TMDLs.

1. Facility Information

Permittee Name: TWIN STAR MINING, INC.
Address: P. O. BOX 40
City: WHARNCLIFFE **State:** WV **Zip:** 25651
Facility: LOWER ELK CREEK STRIP

Location:

Description: 4.7 MILES NE OF HURLEY ON LOWER/MID/UPPER ELK CRK
NAD 83 Virginia State Plane South Northing: 3723780.0000
NAD 83 Virginia State Plane South Easting: 10465450.5261
County: BUCHANAN
USGS 7.5' Quadrangle: HURLEY

Type of Mining

CSMO/NPDES Permit Renewal which also extends the temporary cessation period on 29.26 acres to 06-29-2016.

2. CSMO/NPDES Permit Number:

CSMO: 1101966
NPDES: 0081966
Permit Expiration Date: 12/29/2018
Former NPDES Permit Number: N/A
Former CSMO Permit Number: N/A

3. Owner Contact:

Operator: STEVEN R. POE
Telephone: (276) 619-4410

4. Administrative Dates:

Administratively Complete Date: 01/22/2014
NPDES Reviewer Contact: Anthony Banas (276)523-8100
Review Begin Date: 4/17/2014
Public Comment Beginning Date: 02/20/2014 (1st publication, VIRGINIA MOUNTAINEER (Grundy))
Public Comment Ending Date: 03/22/2014 (30 days following last publication, VIRGINIA MOUNTAINEER (Grundy))
Informal Conference Dates: N/A
Application Approval Date: 8/15/2016
Original Permit Issue Date: 12/29 /1983

5. Application Information:

Application Type: RENEWAL C/N
Application Description: CSMO/NPDES Permit Renewal which also extends the temporary cessation period on 29.26 acres to 06-29-2016.

6. Receiving Waters Classification:

Stream Name	Stream Code	Watershed	Basin
BUFFALO FORK	673	TUG FORK - KNOX CK	BIG SANDY
MIDDLE ELK CREEK	669	TUG FORK - KNOX CK	BIG SANDY
ANDY TRENT BRANCH (KY)	999	NA	NA
LOWER ELK CREEK	668	TUG FORK - KNOX CK	BIG SANDY
UPPER ELK CREEK	667	TUG FORK - KNOX CK	BIG SANDY
LONG BRANCH	1003	TUG FORK - LONG BRANCH	BIG SANDY

7. Ambient Water Quality Description

Background/baseline ambient water quality information on receiving streams is located in Section 5.9 and/or section 5.15 of the joint permit application. None of the outfalls are limited by receiving stream flows, therefore drought flow frequencies are not provided.

8. Permit Characterization/Special Conditions/Effluent Limitations:

☒ Narrative Water Quality Standards Applicable
9VAC25-260-20
Discharges from this operation must not cause the violation of any applicable narrative instream water quality standards.

☒ Technology-based Effluent Limitations Applicable
40 CFR 434

☒ Numeric Water Quality based Effluent Limitations Applicable

9VAC25-260-140
Discharges from this operation must not cause the violation of any applicable numeric instream water quality standards.

☒ SMCRA Performance Standard
4VAC25-130-816.42 and/or 4VAC25-130-817.42

☒ Standard Permit Conditions Applicable
40 CFR 122.41 and 9VAC25-31-190
The outfalls, discharges, and related activities associated with the proposed operation must individually and in aggregate remain in compliance with the requirements stated in sections 318, 402, and 405 of the Clean Water Act. Additionally, the permittee must comply with all conditions attached to the permit, including but not limited to the effluent standards established under 307(a) of the Clean Water Act. The permittee is bound to all duties, procedures, and requirements laid out in both Federal Regulation 40 CFR 122.41 and State Regulation 9VAC25-260.

☐ Special Permit Conditions – TMDL Watershed
40 CFR 130 and CWA 303(d)
The application does not include any outfalls or discharges within established TMDL Watershed Areas. Therefore,no special TMDL permit conditions will be imposed.

☒ Special Permit Conditions – SMCRA
4VAC25-130-773-17

☐ Special Permit Conditions – Alternate Effluent Limitations: Remining
4VAC25-130-825

☐ Discharges limited based on receiving stream flow – Mixing Zone
9VAC260-20

☐ Possible Interstate Effect
This permit is not permitted to cross state boundaries or otherwise require Virginia interstate regulations.

9. NPDES Effluent Limitation Basis

The monitoring frequency and sample type have been established after considering the consistency and nature of these operations, the existing analytical data and the potential environmental risk and consequences of the discharges. Reporting of monitoring data is required quarterly.

Parameter	Basis
Flow	**Report only, no limit. Monitoring required by federal effluent guidelines (40 CFR Part 434).**
pH	**The pH limitation is based upon Virginia's water quality standards and federal effluent guidelines (40 CFR Part 434).**
Total Suspended Solids	**TSS limitations are based on federal effluent guidelines for coal mining (40 CFR Part 434). TSS is also load-limited based upon the approved TMDL, if applicable. For discharges to TMDL watersheds with TSS identified as a stressor, the permit shall also comply with the applicable TMDL consistent with its assumptions and requirements. Best management practices requirements and/or offsets will be used to establish any necessary reductions to meet the transient/aggregate wasteload allocation.**
Total Dissolved Solids	**Monitoring required for informational purposes. TDS is also load-limited based upon the approved TMDL, if applicable. For discharges to TMDL watersheds with TDS identified as a stressor, the permit shall also comply with the applicable TMDL consistent with its assumptions and requirements. Best management practices requirements and/or offsets will be used to establish any necessary reductions to meet the transient/aggregate wasteload allocation.**
Iron, total	**Iron limitations are based on 40-CFR-434.**
Manganese, total	**Manganese limitations are based on 40-CFR-434.**
Selenium, total	**Selenium limitations are based on 9VAC25-260-140 criteria for surface water.**
Acute WET	**WET limitations are based on 9 VAC 25-31-220 D criteria for surface water.**
Chronic WET	**WET limitations are based on 9 VAC 25-31-220 D criteria for surface water.**

10. Permit or Proposed Permit Area Questions

Yes	No	
☐	☒	A. The area contains a publicly owned treatment works which discharge into the waters of the United States.
☐	☒	B. The facility treats, stores, or disposes of hazardous wastes.
☐	☒	C. Fluids are injected at this facility which are: (1) brought to the surface in connection with conventional oil or natural gas production; (2) used for the enhanced recovery of oil or natural gas; or (3) for storage of liquid hydrocarbons.
☐	☒	D. The area contains a concentrated animal feeding operation or aquatic animal production facility that discharges into the waters of the United States.
☐	☒	E. This facility will inject industrial effluent below the lower most stratum containing, within 1 quarter mile of the well bore, underground sources of drinking water.

11. NPDES Outfall Description:

Sediment control structures and the associated NPDES outfalls for surface coal mining operations primarily receive precipitation runoff from mined areas and treat the runoff by settling sediment particles prior to discharge to the receiving stream. Precipitation runoff from mined areas also dissolves portions of exposed fresh rock and carries the associated ions in solution. These ions may not be reduced in the sedimentation process prior to discharge. Certain dissolved ions or the combined concentration of these ions may cause benthic impairment depending on their makeup and/or abundance.

NPDES discharges associated with this permit are from the control of surface water runoff resulting from precipitation and/or groundwater discharges associated with coal mining activities. Typically, discharges are only treated by sedimentation, but in limited circumstances treatment may include chemical treatment such as the addition of neutralizing agents or flocculants.

There are 22 outfalls associated with this permit. Of all total outfalls, 22 were previously approved, and of all previously approved outfalls, 14 have been constructed. The constructed outfalls are SC-008,SC-009,SC-010,SC-011,SC 020,SC 021,SC 022,027,SB-001,SC 023,SC 024,SB 003,ME-001 and 028.Outfall SC-008 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 68 measurements. Outfall SC-009 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 68 measurements. Outfall SC-010 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 68 measurements. Outfall SC-011 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 68 measurements. Outfall SC 020 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 52 measurements. Outfall SC 021 historically has discharged 1.92% of the time with an estimated flow of 0.06 GPM averaged over 52 measurements. Outfall SC 022 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 52 measurements. Outfall 027 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 311 measurements. Outfall SB-001 historically has discharged 89.70% of the time with an estimated flow of 173.32 GPM averaged over 330 measurements. Outfall SC 023 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 52 measurements. Outfall SC 024 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 52 measurements. Outfall SB 003 historically has discharged 90.37% of the time with an estimated flow of 84.96 GPM averaged over 187 measurements. Outfall ME-001 historically has discharged 84.46% of the time with an estimated flow of 60.61 GPM averaged over 502 measurements. Outfall 028 historically has discharged 0.00% of the time with an estimated flow of 0.00 GPM averaged over 311 measurements. Outfall SC-004 has not yet been constructed. It has a watershed acreage of 7.7 and has a low estimated probability of discharge. Outfall SC-005 has not yet been constructed. It has a watershed acreage of 7.3 and has a low estimated probability of discharge. Outfall SC-006 has not yet been constructed. It has a watershed acreage of 7.2 and has a low estimated probability of discharge. Outfall SC-007 has not yet

been constructed. It has a watershed acreage of 9.9 and has a low estimated probability of discharge. Outfall SC-001 has not yet been constructed. It has a watershed acreage of 8.8 and has a low estimated probability of discharge. Outfall SC-002 has not yet been constructed. It has a watershed acreage of 17.3 and has a low estimated probability of discharge. Outfall SC 017 has not yet been constructed. It has a watershed acreage of 24.6 and has a low estimated probability of discharge. Outfall SC-003 has not yet been constructed. It has a watershed acreage of 11.8 and has a low estimated probability of discharge.

Proposed Discharges

There are no proposed outfalls associated with this permit/application.

The following tables present details for each proposed and/or existing outfall. Specific information, including location, regarding each outfall and facility is also found in Section 5, Section 12, and Section 21 of the CSMO/NPDES permit.

MPID Number: 6080861	**Action:**	**Sampling Freq/Qtr: 6**	**Location Number: 028**
Elevation: 1610.00	Facility Location: POND 28	Quad: HURLEY	Northing: 3725058.8459
Easting: 10463736.8056	Watershed Acres: 13.2	Disturbed Acres: 13.2	Receiving Stream: LOWER ELK CREEK

MPID Number: 6080851	**Action:**	**Sampling Freq/Qtr: 6**	**Location Number: ME-001**
Elevation: 1350.00	Facility Location: PD ME-001	Quad: HURLEY	Northing: 3718493.0310
Easting: 10463041.4710	Watershed Acres: 198.3	Disturbed Acres: 55.4	Receiving Stream: MIDDLE ELK CREEK

MPID Number: 0004760	**Action:**	**Sampling Freq/Qtr: 6**	**Location Number: SB 003**
Elevation: 1305.00	Facility Location: SB-3	Quad: HURLEY	Northing: 3714684.9668
Easting: 10465305.9476	Watershed Acres: 188.4	Disturbed Acres: 60.2	Receiving Stream: BUFFALO FORK

MPID Number: 0004759	**Action:**	**Sampling Freq/Qtr: 6**	**Location Number: SC 024**
Elevation: 1780.00	Facility Location: SC-24	Quad: HURLEY	Northing: 3713999.9767
Easting: 10466216.9764	Watershed Acres: 11.4	Disturbed Acres: 11.4	Receiving Stream: BUFFALO FORK

MPID Number: 0004758	**Action:**	**Sampling Freq/Qtr: 6**	**Location Number: SC 023**
Elevation: 1790.00	Facility Location: SC-23	Quad: HURLEY	Northing: 3713536.9693
Easting: 10466165.9665	Watershed Acres: 4.4	Disturbed Acres: 4.4	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004263	Action:	Sampling Freq/Qtr: 6	Location Number: SC-003
Elevation: 1700.00	Facility Location: SC-3	Quad: HURLEY	Northing: 3716947.7709
Easting: 10463150.9487	Watershed Acres: 11.8	Disturbed Acres: 11.8	Receiving Stream: MIDDLE ELK CREEK

MPID Number: 0004757	Action:	Sampling Freq/Qtr: 6	Location Number: SC 017
Elevation: 1720.00	Facility Location: SC-17	Quad: HURLEY	Northing: 3718780.0826
Easting: 10468582.1371	Watershed Acres: 24.6	Disturbed Acres: 24.6	Receiving Stream: LONG BRANCH

MPID Number: 0004262	Action:	Sampling Freq/Qtr: 6	Location Number: SC-002
Elevation: 1700.00	Facility Location: SC-2	Quad: HURLEY	Northing: 3717625.2876
Easting: 10463982.8368	Watershed Acres: 17.3	Disturbed Acres: 17.3	Receiving Stream: MIDDLE ELK CREEK

MPID Number: 0004261	Action:	Sampling Freq/Qtr: 6	Location Number: SC-001
Elevation: 1690.00	Facility Location: SC-1	Quad: HURLEY	Northing: 3717736.6340
Easting: 10464334.9170	Watershed Acres: 8.8	Disturbed Acres: 8.8	Receiving Stream: MIDDLE ELK CREEK

MPID Number: 0004260	Action:	Sampling Freq/Qtr: 6	Location Number: SB-001
Elevation: 1270.00	Facility Location: SB-1	Quad: HURLEY	Northing: 3722901.9483
Easting: 10463614.8150	Watershed Acres: 175.0	Disturbed Acres: 56.6	Receiving Stream: LOWER ELK CREEK

MPID Number: 0001476	Action:	Sampling Freq/Qtr: 6	Location Number: 027
Elevation: 1590.00	Facility Location: POND 27	Quad: HURLEY	Northing: 3725730.4924
Easting: 10465626.8272	Watershed Acres: 15.1	Disturbed Acres: 15.1	Receiving Stream: ANDY TRENT BRANCH (KY)

MPID Number: 0004756	Action:	Sampling Freq/Qtr: 6	Location Number: SC 022
Elevation: 1790.00	Facility Location: SC-22	Quad: HURLEY	Northing: 3713281.9752
Easting: 10466614.9819	Watershed Acres: 7.0	Disturbed Acres: 7.0	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004755	Action:	Sampling Freq/Qtr: 6	Location Number: SC 021
Elevation: 1790.00	Facility Location: SC-21	Quad: HURLEY	Northing: 3713215.9904
Easting: 10467385.0146	Watershed Acres: 12.5	Disturbed Acres: 12.5	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004754	Action:	Sampling Freq/Qtr: 6	Location Number: SC 020
Elevation: 1800.00	Facility Location: SC-20	Quad: HURLEY	Northing: 3713315.0007
Easting: 10468178.0336	Watershed Acres: 13.4	Disturbed Acres: 13.4	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004271	Action:	Sampling Freq/Qtr: 6	Location Number: SC-011
Elevation: 1740.00	Facility Location: SC-11	Quad: HURLEY	Northing: 3715497.1781
Easting: 10465795.8427	Watershed Acres: 5.5	Disturbed Acres: 5.5	Receiving Stream: BUFFALO FORK

MPID Number: 0004270	Action:	Sampling Freq/Qtr: 6	Location Number: SC-010
Elevation: 1880.00	Facility Location: SC-10	Quad: HURLEY	Northing: 3715951.2569
Easting: 10465453.1950	Watershed Acres: 15.1	Disturbed Acres: 15.1	Receiving Stream: BUFFALO FORK

MPID Number: 0004269	Action:	Sampling Freq/Qtr: 6	Location Number: SC-009
Elevation: 1680.00	Facility Location: SC-9	Quad: HURLEY	Northing: 3716293.3894
Easting: 10464417.2345	Watershed Acres: 18.4	Disturbed Acres: 18.4	Receiving Stream: BUFFALO FORK

MPID Number: 0004268	Action:	Sampling Freq/Qtr: 6	Location Number: SC-008
Elevation: 1670.00	Facility Location: SC-8	Quad: HURLEY	Northing: 3715710.9375
Easting: 10463750.2054	Watershed Acres: 11.4	Disturbed Acres: 11.4	Receiving Stream: BUFFALO FORK

MPID Number: 0004267	Action:	Sampling Freq/Qtr: 6	Location Number: SC-007
Elevation: 1720.00	Facility Location: SC-7	Quad: HURLEY	Northing: 3715538.7780
Easting: 10462937.0966	Watershed Acres: 9.9	Disturbed Acres: 9.9	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004266	Action:	Sampling Freq/Qtr: 6	Location Number: SC-006
Elevation: 1710.00	Facility Location: SC-6	Quad: HURLEY	Northing: 3715131.7059
Easting: 10461977.5940	Watershed Acres: 7.2	Disturbed Acres: 7.2	Receiving Stream: UPPER ELK CREEK

MPID Number: 0004265	Action:	Sampling Freq/Qtr: 6	Location Number: SC-005
Elevation: 1700.00	Facility Location: SC-5	Quad: HURLEY	Northing: 3716059.1366
Easting: 10462553.1479	Watershed Acres: 7.3	Disturbed Acres: 7.3	Receiving Stream: MIDDLE ELK CREEK

MPID Number: 0004264	Action:	Sampling Freq/Qtr: 6	Location Number: SC-004
Elevation: 1700.00	Facility Location: SC-4	Quad: HURLEY	Northing: 3716582.4934
Easting: 10462088.6655	Watershed Acres: 7.7	Disturbed Acres: 7.7	Receiving Stream: MIDDLE ELK CREEK

12. <u>Instream Monitoring Description:</u>

Instream monitoring requirements and locations are addressed in Sections 5.7, 5.10, and 21.2 of the joint CSMO/NPDES permit. Location details for each instream monitoring site are tabulated below:

MPID Number: None	Action: A	Sampling Freq/Qtr: 0	Location Number: BAS-6
Facility Location: DOWNSTREAM	Quad: MAJESTIC	Northing: 3725632.9536	Easting: 10462560.8490
Stream: LOWER ELK CREEK			

MPID Number: 0007569	Action: A	Sampling Freq/Qtr: 0	Location Number: BAS-2A
Facility Location: DOWNSTREAM	Quad: HURLEY	Northing: 3713112.5842	Easting: 10460987.7323
Stream: UPPER ELK CREEK			

MPID Number: None	Action: A	Sampling Freq/Qtr: 0	Location Number: BAS-5
Facility Location: DOWNSTREAM	Quad: HURLEY	Northing: 3717046.1696	Easting: 10459609.7370
Stream: MIDDLE ELK CREEK			

MPID Number: None	Action: A	Sampling Freq/Qtr: 0	Location Number: BAS-4
Facility Location: DOWNSTREAM	Quad: PANTHER	Northing: 3723213.1400	Easting: 10470503.6900
Stream: LONG BRANCH			

MPID Number: None	Action: A	Sampling Freq/Qtr: 0	Location Number: BAS-1
Facility Location: DOWNSTREAM	Quad: HURLEY	Northing: 3723322.3803	Easting: 10463294.3720
Stream: LOWER ELK CREEK			

MPID Number: 6120001	Action:	Sampling Freq/Qtr: 3	Location Number: S-1A
Facility Location: UPSTREAM	Quad: PANTHER	Northing: 3723437.1721	Easting: 10470794.2540
Stream: LONG BRANCH			

MPID Number: 6020071	Action:	Sampling Freq/Qtr: 3	Location Number: S-2
Facility Location: DOWNSTREAM	Quad: HURLEY	Northing: 3718056.3881	Easting: 10462471.5635
Stream: MIDDLE ELK CREEK			

MPID Number: 6020070	Action:	Sampling Freq/Qtr: 3	Location Number: S-1
Facility Location: DOWNSTREAM	Quad: HURLEY	Northing: 3723322.3803	Easting: 10463294.3720
Stream: LOWER ELK CREEK			

MPID Number: 6020041	Action:	Sampling Freq/Qtr: 3	Location Number: S-2A
Facility Location: UPSTREAM	Quad: HURLEY	Northing: 3713112.5842	Easting: 10460987.7323
Stream: UPPER ELK CREEK			

MPID Number: 0007587	Action:	Sampling Freq/Qtr: 0	Location Number: BAS-3
Facility Location: DOWNSTREAM	Quad: PANTHER	Northing: 3714064.4735	Easting: 10463779.7000
Stream: BUFFALO FORK			

MPID Number: 0007586	Action:	Sampling Freq/Qtr: 0	Location Number: BAS-2
Facility Location: DOWNSTREAM	Quad: PANTHER	Northing: 3718056.3881	Easting: 10462471.5630
Stream: MIDDLE ELK CREEK			

MPID Number: 0004275	Action:	Sampling Freq/Qtr: 3	Location Number: S-3
Facility Location: DN/391/489	Quad: HURLEY	Northing: 3717046.1696	Easting: 10459609.7370
Stream: MIDDLE ELK CREEK			

13. Ground Water Monitoring:

Ground water monitoring requirements and locations are addressed in Sections 5.3, 5.6, and 21.2 of the joint CSMO/NPDES permit.

14. Climatological Monitoring Description:

Climatological monitoring requirements and location information are addressed in Sections 5.12 and 21.2 of the joint CSMO/NPDES permit.

15. Threatened/Endangered Species

For additional information regarding Threatened/Endangered Species, refer to Section 8.7 of the joint CSMO/NPDES permit application.

16. Site Inspection:

Site inspections are required under the Surface Mining Control and Reclamation Act (SMCRA) permit under 4 VAC 25-130-840.11.

17. Storm Water Discharges Associated with Industrial Activity:

All outfalls from the facility which contain storm water runoff will be subject to the storm water provisions of the NPDES program as governed by 9 VAC 25-31 et seq. The Surface Mining Control and Reclamation Act (SMCRA) permit authorized under 4 VAC 25-130 and issued jointly with this NPDES permit contains extensive storm water monitoring and management requirements which are incorporated into this NPDES permit by reference.

The management and control of all storm water discharges not covered under 9 VAC 25-31 et seq is governed by the storm water management and drainage control provisions proposed in the SMCRA permit and meet or exceed the Storm Water Pollution Prevention Plan requirements of 9 VAC 25-151-80.

18. Anti-Degradation Review:

Stream Tier Designation(s):

There are 6 streams designated as affected surface waters for this permit.
Buffalo Fork has a designation of Tier I.
Middle Elk Creek has a designation of Tier I.
Andy Trent Branch (Ky) has a designation of Tier II.
Lower Elk Creek has a designation of Tier I

Upper Elk Creek has a designation of Tier I.
Long Branch has a designation of Tier II.

The State Water Control Board's Water Quality Standards includes an antidegradation policy (9 VAC 25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For Tier 1 or existing use protection, existing uses of the water body and the water quality to protect these uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

19. <u>Anti-Backsliding</u>:

For permit renewals and(or) permit modifications, the effluent limitations included in the permit are at least as restrictive as those in the preceding permit.

20. <u>Permit Conditions</u>:

Refer to the standard conditions and special conditions contained in the joint CSMO/NPDES permit.

The following special conditions are proposed to be included in Sections C and D of the NPDES permit:

a. **Industrial Reopener.** The permit includes a standard reopener to address potential changes in the permit which may be required as a result of changes in effluent standards or limitations promulgated or approved under Section 307(a)(2) of the Clean Water Act. (Part I.B.1) [Section C]

   Rationale: 40 CFR 122.44 requires all permits for primary industrial categories to include the requirements of Section 307(a)(2) of the Clean Water Act.

b. **Notification Levels:** The permit includes a special condition which requires the permittee to notify the Department if they discharge certain toxic pollutants above established concentrations. [Section C]

   Rationale: Required by VPDES Permit Regulation, 9 VAC 25-31-200 A for all manufacturing, commercial, mining, and silvicultural dischargers.

c. **TMDL Reopener.** The permit includes a standard reopener to address potential changes in the permit which may be required as a result of a new or revised TMDL. [Section D]

   Rationale: Section 303(d) of the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The reopener recognizes that, according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other waste load allocation prepared under section 303 of the Act.

It is believed that the joint CSMO/NPDES permit effluent limitations and special conditions will maintain State water quality standards.

21. Materials Storage:

See Special Condition (p) 2 of the standard NPDES Permit Conditions in the NPDES Permit, Section C.

22. NPDES Permit Rating Worksheet:

The staff has completed the NPDES Permit Rating Worksheet and has determined that the facility meets the criteria to be classified as a Minor Source. The completed worksheet is included in Appendix V.
Total Score: 45

23. Detailed Description - Location of Discharge Point(s)

Reference the mapping included in Section 21.2 of the permit application.

24. Public Participation:

Public Notice Information:

Public Notice required.

A copy of the application materials is made available for public inspection and comment at the designated public office. A copy of the draft NPDES permit and fact sheet are available for public inspection and comment at the Division's Big Stone Gap office.

☐ NPDES Permit Renewal/Modification

Public notice requires publication for 1 week in a newspaper of general circulation. The public comment period runs 30 days following the date of publication. Refer to Sections 2.6 and 2.7 of the joint CSMO/NPDES permit.

☒ New Joint Permit, CSMO/NPDES Permit Renewal, or Significant Revision

Public notice requires publication for 4 consecutive weeks in a newspaper of general circulation. The public comment period runs 30 days following the date of last publication. Refer to Sections 2.6 and 2.7 of the joint CSMO/NPDES permit.

Public Comment Beginning Date:

02/20/2014 (1st publication, VIRGINIA MOUNTAINEER (Grundy))

Public Comment Ending Date:

03/22/2014 (30 days following last publication, VIRGINIA MOUNTAINEER (Grundy))

Public Comment Information:

Any person whose interests are or may be adversely affected by the proposed operation, or an Officer, or Head of any Federal, State, or local government agency or authority may within 30 days of the date of fourth publication may submit written comments or objections to the Division

of Mined Land Reclamation concerning the proposed operation (and may also request, in writing, that the Division hold an Informal Conference concerning the application).

Any relevant comments received during the public comment period or provided during an Informal Conference are addressed in writing and provided to those who comment. Comments that were received after the public comment period were considered during the technical review process.

Procedures for requesting an informal conference:

A request for an informal conference shall follow the requirements of 4 VAC 25-130-773.13(c) of the Virginia Coal Surface Mining Reclamation Regulations.

All correspondence concerning the application should be submitted to the Division of Mined Land Reclamation, P.O. Drawer 900, Big Stone Gap, Virginia 24219, Telephone: (276) 523-8202 Attn: Permit Section. Written comments and a request for informal conference may be e-mailed to the Division at dmlrpublicnotice@dmme.virginia.gov

Procedures for requesting a formal hearing:

4VAC25-130-775.11(g)
Administrative review:
Within 30 days after an applicant or permittee is notified of the decision of the division concerning an application for approval of exploration required under Part 772, a permit for surface coal mining and reclamation operations, a permit revision, a permit renewal, or a transfer, assignment, or sale of permit rights, the applicant, permittee, or any person with an interest which is or may be adversely affected by the decision may request, in writing, a formal public hearing to contest such action with the Director of the Division of Mined Land Reclamation, Drawer 900, Big Stone Gap, VA 24219.

Procedures for judicial review:

4VAC25-130-775.13:
Judicial review
(a) General. Any applicant, or any person with an interest which is or may be adversely affected by the final administrative decision and who has participated in the administrative hearings as an objector may appeal as provided in subsection (b) of this section if—
(1) The applicant or person is aggrieved by the director or his designee's final order under 4VAC25-130-775.11; or
(2) Either the division or the director failed to act within time limits specified in 4VAC25-130-775.11.
(b) Judicial review. The final order of the division pursuant to subsection (a) of 4VAC25-130-775.11 shall be subject to judicial review as provided by the Virginia Administrative Process Act and the rules of the Supreme Court of Virginia as promulgated thereto. The availability of such review shall not be construed to limit the operation of the rights established in Section 520 of the Federal Act.
(c) All notices of appeal for judicial review of a hearing officer's final decision, or the final decision on review and reconsideration, shall be filed with the Director, Division of Mined Land Reclamation, Department of Mines, Minerals and Energy, Post Office Drawer 900, Big Stone Gap, Virginia 24219.

25. <u>Variances</u>

This permit has applicable waiver variances. The permit standards with waivers and variances are as follows:
Within 500 feet of known abandoned underground mine works (4 VAC 25-130-816)
Within 300 feet of any occupied dwelling not specifically exempted by 4 VAC
Within 100 feet of a perennial or intermittent stream (4 VAC 25-130-816.57)
Approximate Original Contour (4 VAC 25-130-784.14 & 4 VAC 25-130-785.16)

26. Staff Comments

Staff comments and applicant responses are located in Section 21.3 of the joint CSMO/NPDES permit.

27. Impaired Segments/TMDL watersheds

TMDL Summary:
The proposed and existing outfalls on this permit do not exist within any TMDL watershed.

Offset summary:

If an offset is required, the Department will track approved offset balances for this permit utilizing the Department's TMDL system. If the permit is required to have a mining waste load offset in order to discharge, then the following requirements will also be applied.

1. Permit compliance will be determined by comparing the rolling annualized aggregate mining waste load to the offset limitations. The permit will not be allowed to exceed the mining waste load offset amount credited to this permit except as described below:
   a. Provided excess mining waste load is available when the aggregate watershed mining waste load is compared to the TMDL mining waste load allocation, the excess may be applied to the permitted waste load for that particular quarter.
   b. On the condition of the rolling annualized aggregate waste load exceeding the offset limitation, then the permittee may request that additional available offset credit be applied to the permit.
2. If no excess mining waste load is available and no existing offset credit is available, then the excess mining waste load amount from this permit must have an additional offset. The additional offset must be reviewed and approved by the Department.

Future Growth
The Department will track the future growth balance given in the TMDL for this watershed. The future growth allocation will be managed in a manner similar to an offset where new applications will draw from future growth if mining waste load is not available for the watershed. If the future growth is utilized as well as the mining waste load for the watershed, the permit will be required to have a mining waste load offset in order to discharge.

PCBs

The permit is not expected to have a direct effect within the Levisa River watershed; therefore, PCB monitoring is not mandated for the permit.

List of Appendices and Attachments

1. Appendix I: Representative Sampling/Effluent Screening
2. Appendix II: Evaluation of Effluent Limitations
3. Appendix III: Reasonable Potential Analysis
4. Appendix IV: Evaluation of Alternate Effluent Limitations- Remining
5. Appendix V: NPDES Major/Minor Permit Rating Worksheet
6. Attachment A – Factsheet/Monitoring History

Appendix I. Representative Sampling/Effluent Screening:

Representative Sampling

Typical surface mine discharges can be divided into three categories based on the area controlled and whether the outfall is expected to discharge continuously, intermittently, or rarely/never.

Discharges within each of the three categories are located in the same geological strata and receive precipitation runoff from the same sources. Due to the similarities between discharges within each classification, DMME is allowing representative sampling from one outfall of each class with the exception of outfalls expected to rarely/never discharge, which require no representative sampling. Initial permit conditions will be imposed based on the representative data. Permit limits will be modified as appropriate at renewal once discharge data is collected from the outfall when constructed. If any outfalls begin to have frequent discharges then representative sampling will be required and any necessary permit limits will be developed. If the representative outfall is not constructed first or is not the first outfall of the type represented to discharge, the first discharging outfall should be utilized.

Effluent Screening

WET Assays – Effluent

WET assays are utilized as a screening tool to determine if a reasonable potential for effluent toxicity exists. Acute and/or chronic bioassays as appropriate will be utilized to measure whole effluent toxicity in discharge samples for four consecutive quarters. Effluents demonstrating toxicity will receive appropriate WET limits for the discharge. Discharges not exhibiting toxicity will not receive WET limits and will only be required to submit additional WET tests at renewal and/or mid-term. Characterization will be conducted by a qualified laboratory per DEQ protocol. WET assays will utilize standard WET testing organisms and toxicity will be determined utilizing the results from such testing.

Chemical Analyses – Effluent

The permit requires sampling for the parameters in Table 1 within 6 months of commencing the permitted activity and at renewal for each representative outfall, and in receiving streams. If any outfalls begin to have frequent discharges then representative sampling will be required and any necessary permit limits will be developed. If the representative outfall is not constructed first or is not the first outfall of the type represented to discharge, the first discharging outfall should be utilized This chemical effluent screening data will be utilized for the RP and appropriate numerical limits will be applied if necessary. These parameters will be compared to instream baseline data and numerical water quality standards to determine whether numerical limits and/or mixing zones are required. The chemical analyses for effluent screening are in addition to the currently required bi-weekly sampling required for NPDES monitoring compliance purposes.

For this permit, outfall(s) SB-001, ME-001, SB 003 is(are) designated as the representative outfall(s) for effluent screening.

TABLE 1 - Parameters

Parameter
Flow (gpm)
Temperature (^{o}C)
pH (std units)
TSS (mg/L)
Specific Conductance (uS/cm)
TDS (mg/L)
Sulfates (mg/L)
Bromide (mg/L)
Chlorides (mg/L)
Aluminum (mg/L)
Iron (mg/L)
Manganese (mg/L)
Magnesium (mg/L)
Total Acidity (mg/L)
Total Alkalinity (mg/L CaCO3)
Bicarbonate Alkalinity (mg/L)
Carbonate Alkalinity (mg/L)
Hardness (mg/L CaCO3)
Total Zinc (µg/L)
Total Antimony (µg/L)
Total Arsenic (µg/L)
Total Beryllium (µg/L)
Total Cadmium (µg/L)
Total Chromium (µg/L)
Total Copper (µg/L)
Total Lead (µg/L
Total Mercury (µg/L)
Total Nickel (µg/L)
Total Selenium (µg/L)
Total Silver (µg/L)
Total Thallium (µg/L)
Total Barium (µg/L)
Total Boron (µg/L)
Total Cobalt (µg/L)
Total Cyanide (µg/L)
Total Phenols (µg/L)
Nitrate (mg/L)
Nitrite (mg/L)
Dissolved Organic Carbon (mg/L)
Hydrogen Sulfide (mg/L)[1]

[1] This parameter need only be analyzed for underground mine discharges.

Appendix II: Evaluation of Effluent Limitations

Sediment control structures and the associated NPDES outfalls for surface coal mining operations primarily receive precipitation runoff from mined areas and discharge in response to precipitation events. Technology-based effluent limitations per 40 CFR 434 apply.

None requested.

Appendix III: Reasonable Potential Analysis

DMLR must perform a Reasonable Potential Analysis (RPA) (9VAC 25-31-220 D.1) for each proposed discharge in determining which permit conditions are needed for a new or expanded discharge permit. This analysis is based primarily on the potential for the permit's sediment control structures to discharge and upon the nature of the discharge, whether or not dilution is available in the receiving streams, mining practices, including the geology, drainage area, etc. DMLR may utilize applicable WET screening data, effluent chemical monitoring data, instream chemical data, and instream biological survey data in conducting the RPA. As part of any RPA, DMLR will consider whether or not there are representative discharges that can be used to determine the RP for a given outfall. In TMDL watersheds, DMLR will consider whether discharges will comply with the TMDL as a portion of the RPA.

In summary, Virginia's approach will include some or all of these measures to address the potential impact of mining discharges and to address Virginia's Narrative Water Quality Standards.

1. The potential for discharge, including both flow rate and duration
2. Chemical characterization of discharges and receiving streams
3. Instream biologic characterization including benthic surveys, fish surveys, chemical water quality analyses, and habitat surveys to address effects on sensitive species
4. WET assays to determine effluent toxicity when deemed necessary by DMLR

<u>Instream Biological Surveys</u>

Biological Monitoring Plan ☒Yes ☐ No

To ensure protection of aquatic species, biological surveys are to be completed to determine the benthic health of the receiving stream as outlined in the joint CSMO/NPDES permit. Fall annual biological monitoring at Biological Aquatic Stations BAS-2, BAS-3, BAS-1, BAS-4, BAS-5, BAS-2A, BAS-6 is required (See Part I Section 8.3 and the applicable map in Part I Section 21.2 in the DMLR Electronic Permit Application for location information). The Virginia Stream Condition Index (VASCI) protocol will be used. Also, stream habitat scores and chemical data will be collected at these locations. All biologic sampling shall be done in accordance with the Virginia Department of Game and Inland Fisheries scientific collection permit requirements.

SSPM Applicable to this Permit ☐ Yes ☒ No

DMLR Aquatic Species Specific Protection Measures (SSPM) guidelines should be followed when the proposed discharge is within 5 miles of Threatened and Endangered Species or their critical habitat.

If the aquatic ecosystem at the assessment stations, prior to initiation of the permitted activity, is not impaired based on the VASCI score, then the acceptable future biological condition will be a VASCI score greater than or equal to 60. In determining whether a lower VASCI score represents an unacceptable condition, the DMLR will utilize best professional judgment, including a holistic examination of the health of the aquatic ecosystem.

If the aquatic ecosystem at the assessment stations, prior to initiation of the permitted activity, is impaired based on the VASCI score, then the applicant will need to identify existing conditions within the

watershed that may be contributing to the problem. A VASCI score greater than or equal to the baseline value would represent an acceptable future condition.

Appendix IV: Evaluation of Alternate Effluent Limitations: Remining

None requested.

Appendix V: NPDES Permit Rating Worksheet

Date: 30 November 2016

DMLR Application No: 1009058

DMLR Permit No: 1101966

VPDES Permit No: 0081966

FACTOR 1 Toxic Pollutant Potential		**Toxicity Group**	**Points**
Does this permit have a prep plant?	Yes	6	30
	No	5	25

Factor 1 Score: 25

FACTOR 2 Flow/Stream Flow Volumes

Coal industry discharges are always Type III

Sum of average discharges for each outfall for permit: 0.605567995858 MGD

Flow Class	**Code**	**Points**
< 1 MGD	31	0
< 5 MGD	32	10
<10 MGD	33	20
>10 MGD	34	30

Factor 2 Score: 0

FACTOR 3 Conventional Pollutants

TMDL load for all outfalls on permit

Flow (gpm):	420.533330457
Concentration (mg/L):	35.0
Days:	1.0
Load (lbs/day):	176.880524123

Load Class	**Code**	**Points**
< 100 lbs/day	1	0
< 1000 lbs/day	2	5
<5000 lbs/day	3	15
>5000 lbs/day	4	20

Factor 3 Score: 5

FACTOR 4 Public Health Impact

Is a public drinking water intake located within 50 miles downstream of discharge?

Answer	**Points**
No	0
Yes	See below

If yes, is facility an UNDERGROUND prep plant?

Answer	**Code**	**Points**
No	5	5
Yes	10	10

Factor 4 Score: 0

FACTOR 5 Water Quality Factors

A) Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a waste load allocation been assigned to the discharge?

Answer	Code	Points
Yes	1	10
No	2	0

Factor 5a Score: 10

B) Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

Answer	Code	Points
Yes	1	0
No	2	5

Factor 5b Score: 5

C) Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

Answer	Code	Points
Yes	1	10
No	2	0

Factor 5c Score: 0

FACTOR 6 Proximity to Near Coastal Waters
Is the permit within 50 miles of near coastal waters?

Answer	Points
Yes	5
No	0

Factor 6 Score: 0

Worksheet Total Score: 45

D) Attachment A. <u>Factsheet/Monitoring History</u>

MONITORING POINT DETAIL SUPPLEMENT
RECORD 0002088 / PERMIT 1101966

Renewal Application

Approval Date: 08/15/16

Application No: 1009058
Former NPDES No: *******
Former CSMO No: *******
CSMO No: 1101966
NPDES No: 0081966

==========

I. APPLICANT INFORMATION

Name: TWIN STAR MINING, INC.
Address: P. O. BOX 40

City: WHARNCLIFFE
State: WV Zip: 25651
Telephone: (304)929-6340
Operator: CHRISTOPHER L. SLONE

Facility: LOWER ELK CREEK STRIP
Location: LOWER/MIDDLE/UPPER ELK CK
OFF ST RT 711
State Plane - North: 3723780.0000
State Plane - East: 10465450.5261
Total Acres: 1085.06
Inspector: SHIFFLETT, GARY

Type of Mining	County	Quadrangle
SUR MTNTOP-AOC	VARNCBUCHANAN	HURLEY
Surface - Area		MAJESTIC
Surface - Auger		PANTHER
Surface-Contour		
Surface - Area		
Undergrd. - R P		

Receiving Stream	Code	Watershed	Wtr #	Basin
LONG BRANCH	1003	TUG FORK - LONG BRANCH	TF61	BIG SANDY
UPPER ELK CREEK	667	TUG FORK - KNOX CK	TF60	BIG SANDY
LOWER ELK CREEK	668	TUG FORK - KNOX CK	TF60	BIG SANDY
MIDDLE ELK CREEK	669	TUG FORK - KNOX CK	TF60	BIG SANDY
BUFFALO FORK	673	TUG FORK - KNOX CK	TF60	BIG SANDY
ANDY TRENT BRANCH (KY)	999	**********	****	**********

II. CONTRACT LABORATORY SERVICES

Laboratory Services will be performed by:

Laboratory Name: ENV. MONITORING,INC.(EMI)
Address: P O BOX 1190
City: NORTON State: VA Zip: 24273
Phone: (276)679-6544

MONITORING POINT DETAIL SUPPLEMENT
RECORD 0002088 / PERMIT 1101966

Comments: 10/14/2016: TJ APPNO 1009058-7 APPROVED 08/15/2016 AS CSMO/NPDES PERMIT RENEWAL 1101966/0081966, TWIN STAR MINING, INC. - LOWER ELK CREEK STRIP. ADD INSTREAM BIOLOGICAL/CHEMICAL MONITORING POINTS BAS-2A, BAS-1, BAS-4, BAS-5, & BAS-6 (MPIDS 0007569, 0010312, 0010313, 0010314, & 0010315) BIOLOGICAL/CHEMICAL MONITORING REQUIRED. UPDATE DETAILS OF GROUNDWATER MONITORING POINTS GWB-3, UD-A, UD-B, UD-C, UD-D, P-16, P-17, GWB-4, G-1, P-1, P-10, P-11, P-12, P-13, P-14, P-2, P-3, P-5, P-7, P-8, & P-9 (MPIDS 0003490, 0004273, 0004274, 0004747, 0004748, 0004751, 0004752, 0004753, 6044688, 6050833, 6050834, 6050835, 6050836, 6050837, 6050838, 6050840, 6050841, 6050843, 6050845, 6050846, & 6050847). DELETE GROUNDWATER MONITORING POINTS UD-E & UD-F (MPID 0004749 & 0004750). AYB.
LAB: ENV. MONITORING,INC.(EMI) P O BOX 1190, NORTON, VA 24273, (276)679-6544. SIGNING DMRS: DAVID DECKER & STEVEN R. POE & FRANK PINTER.
07/27/16: ACRES REVISION ISSUED 06/27/16, TO AMMEND 4.02 ACRES FOR AN ACCESS ROAD TO SEDIMENT BASIN #3 AND AN AREA ON AN EXISTING PRE-LAW ROAD/BENCH TO STORE SEDIMENT MATERIAL TO BE CLEANED FROM SEDIMENT BASIN #3, TO DELETE 61. 48 ACRES OF UNDISTURBED AREA WHICH IS BONDED, TO DELETE GROUNDWATER MONITORING POINTS UD-E MPID 0004749 AND UD-F MPID 0004750, AND TO REVISE THE INCREMENTAL BONDING PLAN/MAP. JKW
11/07/2013: MEMO FROM GARY SLONE-TERRA TECH DATED 10/31/13 TO VERIFY GW POINTS P-16 & P-17 (MPID NO'S 0004751 & 0004752) MONITORING WELLS WERE COMPLETED ON 09/10/13. MMH
01/19/2012: MT APPNO 1007649-3/1101966 APPROVED 01/04/12 AS MID-TERM REVIEW WITH NO MONITORING CHANGES. IN ORDER TO ADDRESS REASONABLE POTENTIAL ANALYSIS (RPA) AND NARRATIVE WATER QUALITY STANDARDS (per 40 CFR 122.41(d)(1) 9VAC25-31-220(D)(1), and 9VAC25-31-190(H)), BIOLOGICAL MONITORING, TOXIC AND CHEMICAL INSTREAM MONITORING, AS WELL AS WET ANALYSES AND CHEMICAL EFFUENT SCREENING AT REPRESENTATIVE OUTFALLS, MUST BE INCLUDED, AT A MINIMUM, WITH THE FIRST SUBMITTAL OF THE PERMIT RENEWAL APPLICATION. YOU MAY CONTACT THE DIVISION DIRECTLY IF YOU WISH TO SCHEDULE A MEETING TO DISCUSS REPRESENTATIVE MONITORING FOR SUBSTANTIALLY SIMILAR DISCHARGES. THE NEED FOR CONDUCTING EFFLUENT SCREENING OF DISCHARGE(S) MAY CONSIDER THE HISTORY/LIKELIHOOD OF DISCHARGE/NO DISCHARGE. DELETE 2 GROUNDWATER MONITORING POINTS P-4 & P-R-2 (MPID NO'S 6050842 & 6054806), AND ADD 2 SW INSTREAM MONITORING POINTS BAS-2 & BAS-3 (MPID NO'S 0007586 & 0007587) AND REQUIRIING BIOLOGICAL/CHEMICAL MONITORING. GJO/MMH
12/11/2008: TJ APPNO 1005267-3 APPROVED 12/01/08 AS CSMO/NPDES PERMIT RENEWAL 1101966/0081966, TWIN STAR MINING, INC. - LOWER ELK CREEK STRIP. ADDING TDS MONITORING AND CHANGING EFFLUENT LIMITS FROM 21-05 TO 30-05 ON OUTFALLS 028 AND ME-001; AND CHANGING EFFLUENT LIMITS FROM 21-13 TO 30-13 ON OUTFALLS SB-001, SB 003, SC-001 THRU SC-011, SC 020 THRU SC 024; OUTFALLS 027 AND SC 017 WILL REMAIN THE SAME (21-13); AND CORRECT RECEIVING STREAM ON OUTFALL SC 017 (MPID 0004757) FROM UPPER ELK CREEK TO LONG BRANCH. PRB/MMH
LAB: COMPLIANCE MONITORING (44), SIGNING DMRS: FRANK PINTER AND GREG BLANKENSHIP
11/12/2008: ADDING TOTAL DISSOLVED SOLIDS (TDS) MONITORING TO ALL OR REQUIRED NPDES OUTFALLS (TOTAL MAXIMUM DAILY LOADS (TMDL) WATERSHED WITH A NEW NPDES LIMIT IDENTIFIER BEGINNING JUNE 1, 2008. MFS/MMH
05/31/2006: SJ APPNO-REVIEW 1003165-2 ISSUED 05/31/06 AS CSMO/NPDES PERMIT NUMBER 1101966/0081966, TWIN STAR MINING, INC. - LOWER ELK CREEK STRIP. SUCCESSION TO PERMIT 1100489, VIRGINIA ENERGY COMPANY (ISSUED 12/29/83, RELEASED 06/01/06)., TRANSFER FROM EX. DMLR #1799 (179901X), VIRGINIA ENERGY COMPANY (ISSUED 06/10/75, RELEASED 11/19/84). ADDING 22 NPDES OUTFALLS: 027, 028, ME-001, SB-001, SB 003, SC-001 THRU SC-011, SC 017, SC 020 THRU SC 024; ADDING 26 GROUND WATER POINTS: G-1, GWB-3, GWB-4, P-1 THRU P-5, P-7 THRU P-17, P-R-2, UD-A THRU UD-F; ADDING 5 INSTREAM POINTS: S-1, S1A, S-2, S2A AND S-3 AND RAINFALL MPID #0000345 MONITORING. SURFACE-AUGER-CONTOUR-AREA-MTNTOP+AOC AND UNDERGROUND- ROOM AND PILLAR MINING PERMIT.

OPERATOR: KEVIN S. CRUTCHFIELD INSPECTOR: GARY SHIFFLETT
LAB: COMPLIANCE MONITORING LAB (44) SUITE 1 50, CANEY BRANCH ROAD, CHAPMANVILLE, WV 25508, 304.855.0140, SIGNING DMRS: LARRY DAMRON AND RANDY MCMILLION

06/01/06: PN 1100489, VA ENERGY CO, RELEASED 06/01/06, TRANSFERRED TO PN 1101966, TWIN STAR MINING, INC.
05/31/2006: TRANSFER PN 1100489, VIRGINIA ENERGY COMPANY,TO PN 1101966, TWIN STAR MINING, INC., APPLICATION #1003165-2, ISSUED 05/31/06.
06/04/2004: TJ APPNO 1001600-3 APPROVED 05/24/04 AS CSMO/ NPDES PERMIT RENEWAL 1100489/0080489, VIRGINIA ENERGY COMPANY - LOWER ELK CREEK STRIP. NO MONITORING CHANGES.
03/25/2003: NJ APPNO 1000164-4/1101827 (VEC) TO SHARE EXISTING INSTREAM POINT WITH PN 1100489 (IDENTIFIED AS POINT S-1A, MPID #6120001) AND PN 1201639 (IDENTIFIED AS POINT S-1, MPID #6120001). RELINQUISH NPDES OUTFALL LB-001 (MPID #6080850) FROM PN 1100489 TO PN 1101827. CSW/MMH
06/25/02: AA APPNO 9108886-4/1100489 APPROVED 06/24/02 TO ADD GROUNDWATER POINTS GWB-4, UD-C, UD-D, UD-E, UD-F, P-16, P-17 P-R-2 (6054806-RELINQUISH FROM PN 1300391) AND DELETE GW POINT P-6 (6050844); ADD NPDES OUTFALLS SC 017, SC 020 THRU SC 024, SB 003, AND DELETE NPDES OUTFALL SC-012 (0004272)CSW/MMH
LAB: COMPLIANCE MONITORING (44) SUITE 1 50, CHAPMANVILLE, WV 25508, 304-855-0140, SIGNING DMRS: J. KEVIN AND DAVID NICEWONDER.
02/21/02: CORRECTION TO FILES ON AA APPNO 9108576/1100489 APPROVED 07/11/01 TO ADD GROUNDWATER POINTS GWB-3 (0003490) AND G-1 (6044688) AND SHARE WITH PN 1300391 (VEC).
07/13/01: AA APPNO 9108576 APPROVED 07/11/01 TO AMEND 320.0 ACRES FOR ADDITIONAL MINING. ADD NPDES OUTFALLS SB-001, SC-001 THRU SC-012, DELETE NPDES OUTFALLS 006, 033, AND 034. ADD GW POINTS UD-A AND UD-B. ADD INSTREAM POINT S-3 (SHARING WITH PN 1300391), AND RENAME INSTREAM SITES S-1 (SHARING WITH PN 1201639) AND S-2 (SHARING WITH PN 1300290) AS S-1A AND S-2A.
07/11/01: AA APPNO 9308577 ON PN 1300391 TO SHARE INSTREAM SITE S-3 (MPID #0004275) WITH PN 1100489. MMH
11/06/00: GARY SLONE EMAILED LAT/LON INFORMATION ON GW SITES P-1 THROUGH P-6. MMH
09/19/2000: RP APPNO 9108313/1100489 APPROVED 09/07/00 TO REMOVE BASINS 1, 2, 3, 4, 5, 16, 17, 18, 19, 20, 21, 22, 23, 25, 25, 35, 36, VI-1 AND VE-2 AND TO CEASE MONITORING NPDES OUTFALLS 035 AND 036. MMH
06/25/99: TJ APPNO 5101676 APPROVED 06/14/99 AS CSMO/NPDES PERMIT RENEWAL 1101966/0081966, VIRGINIA ENERGY COMPANY. NO CHANGES. CSW/MMH
LAB: J&M MONITORING, INC. (36) POB 2486, PIKEVILLE, KY 41502, 606-478-1910, SIGNING DMRS: KEVIN NICEWONDER
08/30/94: TJ APPNO 5101059 APPROVED AS CSMO/NPDES PERMIT RENEWAL 1100489/0080489, VIRGINIA ENERGY COMPANY. STORM WATER INCLUDED. DELETE NPDES SITES 001, 002, 003, 004, 020, 023, 025, 026, VE-1, & VE-2. ADD NPDES SITE 006 BACK, THE POND IT WAS IN SERIES WITH IS BEING DELETED; ADD NPDES SITE 027, IS BEING ADDED FOR THE SAME REASON. CSW/MMH
10/11/90: RP APPNO 9104412/1100489 APPROVED TO REDUCE MONITORING REQUIREMENTS ON NPDES OUTFALLS 001, 002, 003, 004, 020, 023, 025, 026, 035, 036, & VE-1 TO 21-19, RECLAMATION REQUIREMENTS. GJO/MMH
05/12/89: TJ APPNO 5100279 APPROVED AS CSMO/NPDES PERMIT RENEWAL 1100489/0080489, VIRGINIA ENERGY COMPANY. DELETE NPDES SITES 006 & 022, DRAINAGE DIRECTED TO OTHER BASINS. MST/MMH
08/26/88: RA APPNO 9102934/1100489 TO DELETE NPDES OUTFALLS 019, 25- A, 029, 030, 031, & 032, DELETING MINING AREA; DELETE GW SIT E UD-1 (AREA UNDISTURBED). GJO/MMH
05/21/86: RA APPNO 9101058/1100489 TO ADD NPDES OUTFALL 25-A, DELETE 019, DRAINAGE FROM POND 019 FLOWS TO POND 25-A; ADD GW SITES P-14 AND P-15, PIEZOMETERS. MST/MMH
05/08/86: RP APPNO 9101442/1100489 TO DELETE NPDES OUTFALLS 005, 021, 024 & 027, THESE DELETIONS ARE DUE TO THE FACT THAT THEY FLOW IN SERIES OF ALREADY EXISTING DISCHARGES.MH
01/15/86: RP APPNO 9101144/1100489 TO CHANGE LIMITS TO POST MINING RECLAMATION (21-19) FOR NPDES OUTFALLS 033, 034, & VE-2. MST/MMH
12/23/85: RA APPNO 9100937/1100489 TO DELETE NPDES SITES 011, 012, 014 & 015. CHANGE LOCATION ON LB-001 TO LAT/37-29-45, LON/81-58-36. GJO/MMH
03/21/85: RA APPNO 9100236/1100489 TO ADD GW POINT UD-1

(01/09/85). MMH
04/05/84: RA APPNO 9100123/1100489 TO CHANGE LATITUDE/
LONGITUDE ON NPDES OUTFALLS 033 AND 034 (03/20/84).
12/29/1983: NJ APPNO 0100545 APPROVED AS CSMO/NPDES PERMIT
NUMBER 1100489/0080489, VIRGINIA ENERGY COMPANY. TRANSFER
VIRGINIA ENERGY COMPANIES, EX. DMLR #'S 1799 (179901X,
ISSUED 06/10/75, RELEASED 11/19/84), 2997 (299701X, ISSUED
04/11/79, RELEASED 02/01/85), 3281 (328101X, ISSUED
04/24/81, RELEASED 02/22/84), & 3282 (328201X, ISSUED
04/24/81, RELEASED 02/22/84). RDA/MMH
LAB: VA ENERGY CO. (32) 148-B BRISTOL EAST ROAD, BRISTOL,
VA 24201, 540-669-6476.

MONITORING POINT DETAIL SUPPLEMENT
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III. NPDES DISCHARGE SITES
Required

MPID	Outfall Facility	State Plane N State Plane E	Stream Name	Quad Sec	Added Deleted	Limit	Stat
0001476	027 POND 27	3725730.4924 10465626.8272	999 ANDY TRENT BR	HURLEY 3	05/31/06 ********	21-13	ND
0004260	SB-001 SB-1	3722901.9483 10463614.8150	668 LOWER ELK CRE	HURLEY 3	05/31/06 ********	70-13	A
0004261	SC-001 SC-1	3717736.6340 10464334.9170	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-13	NC
0004262	SC-002 SC-2	3717625.2876 10463982.8368	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-13	NC
0004263	SC-003 SC-3	3716947.7709 10463150.9487	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-13	NC
0004264	SC-004 SC-4	3716582.4934 10462088.6655	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-13	NC
0004265	SC-005 SC-5	3716059.1366 10462553.1479	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-13	NC
0004266	SC-006 SC-6	3715131.7059 10461977.5940	667 UPPER ELK CRE	HURLEY 3	05/31/06 ********	30-13	NC
0004267	SC-007 SC-7	3715538.7780 10462937.0966	667 UPPER ELK CRE	HURLEY 3	05/31/06 ********	30-13	NC
0004268	SC-008 SC-8	3715710.9375 10463750.2054	673 BUFFALO FORK	HURLEY 3	05/31/06 ********	30-13	ND
0004269	SC-009 SC-9	3716293.3894 10464417.2345	673 BUFFALO FORK	HURLEY 3	05/31/06 ********	30-13	ND
0004270	SC-010 SC-10	3715951.2569 10465453.1950	673 BUFFALO FORK	HURLEY 3	05/31/06 ********	30-13	ND
0004271	SC-011 SC-11	3715497.1781 10465795.8427	673 BUFFALO FORK	HURLEY 3	05/31/06 ********	30-13	ND
0004754	SC 020 SC-20	3713315.0007 10468178.0336	667 UPPER ELK CRE	HURLEY *	05/31/06 ********	30-13	ND
0004755	SC 021 SC-21	3713215.9904 10467385.0146	667 UPPER ELK CRE	HURLEY *	05/31/06 ********	30-13	ND
0004756	SC 022 SC-22	3713281.9752 10466614.9819	667 UPPER ELK CRE	HURLEY *	05/31/06 ********	30-13	ND
0004757	SC 017 SC-17	3718780.0826 10468582.1371	1003 LONG BRANCH	HURLEY *	05/31/06 ********	21-13	NC
0004758	SC 023 SC-23	3713536.9693 10466165.9665	667 UPPER ELK CRE	HURLEY *	05/31/06 ********	30-13	ND
0004759	SC 024 SC-24	3713999.9767 10466216.9764	673 BUFFALO FORK	HURLEY *	05/31/06 ********	30-13	ND
0004760	SB 003 SB-3	3714684.9668 10465305.9476	673 BUFFALO FORK	HURLEY *	05/31/06 ********	70-13	A
6080851	ME-001 PD ME-001	3718493.0310 10463041.4710	669 MIDDLE ELK CR	HURLEY 3	05/31/06 ********	30-05	A
6080861	028 POND 28	3725058.8459 10463736.8056	668 LOWER ELK CRE	HURLEY 3	05/31/06 ********	30-05	ND

MONITORING POINT DETAIL SUPPLEMENT
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IV. GROUNDWATER MONITORING SITES
Required

MPID	Outfall Facility	State Plane N State Plane E	Elevation Type	Quad Sec	Added Deleted	Stat
0003490	GWB-3 LOWER ELK	3725906.0433 10462520.9757	1345.0 WELL	HURLEY 9	05/31/06 ********	A
0004273	UD-A RK FILL A	3722579.0414 10463937.0146	1290.0 UNDERDRAIN	HURLEY 3	05/31/06 ********	A
0004274	UD-B RK FILL B	3719834.0910 10467966.1450	1410.0 UNDERDRAIN	PANTHER 1	05/31/06 ********	A
0004747	UD-C FILL C	3720668.1099 10468636.1712	1380.0 UNDERDRAIN	PANTHER *	05/31/06 ********	A
0004748	UD-D FILL D	3714829.9799 10465833.9733	1340.0 UNDERDRAIN	HURLEY *	05/31/06 ********	A
0004749	UD-E FILL E	3718587.9931 10464112.9582	1440.0 UNDERDRAIN	HURLEY *	05/31/06 06/27/16	NC
0004750	UD-F FILL F	3719180.9971 10463942.9601	1440.0 UNDERDRAIN	HURLEY *	05/31/06 06/27/16	NC
0004751	P-16 BACKFILL	3718741.0879 10469137.1462	1900.0 PIEZOMETER	PANTHER *	05/31/06 ********	A
0004752	P-17 BACKFILL	3713761.0012 10467619.0305	1900.0 PIEZOMETER	PANTHER *	05/31/06 ********	A
0004753	GWB-4 MIDDLE ELK	3717585.9006 10460429.7772	1225.0 WELL	HURLEY *	05/31/06 ********	A
6044688	G-1 LOADOUT	3713352.8035 10458302.6183	1140.0 WELL	HURLEY 3	05/31/06 ********	A
6050833	P-1 BACKFILL	3724076.0783 10464707.0741	1710.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050834	P-10 BACKFILL	3717012.9725 10464120.9330	1880.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050835	P-11 BACKFILL	3716280.9761 10464739.9487	1720.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050836	P-12 BACKFILL	3716520.9575 10463719.9072	1870.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050837	P-13 BACKFILL	3715651.9244 10462698.8479	1780.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050838	P-14 BACKFILL	3723113.1347 10467766.1989	1800.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050839	P-15 BACKFILL	3720885.0793 10466647.1104	1830 PIEZOMETER	HURLEY 3	05/31/06 01/04/12	A
6050840	P-2 BACKFILL	3722249.0900 10466219.1100	1880.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050841	P-3 BACKFILL	3725678.1018 10465170.0969	1680.0 PIEZOMETER	HURLEY 9	05/31/06 ********	A
6050842	P-4 BACKFILL	3720093.0445 10465552.0477	1900 PIEZOMETER	HURLEY 3	05/31/06 01/04/12	A
6050843	P-5 BACKFILL	3717965.0247 10465952.0306	1900.0 PIEZOMETER	HURLEY 3	05/31/06 ********	A
6050845	P-7	3725316.0808	1620.0	HURLEY	05/31/06	

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        BACKFILL   10464332.0611 PIEZOMETER           9                ******** A

6050846 P-8         3724890.0885 1640.0               HURLEY           05/31/06
        BACKFILL   10464784.0840 PIEZOMETER           9                ******** A

6050847 P-9         3723023.1100 1810.0               HURLEY           05/31/06
        BACKFILL   10466787.1500 PIEZOMETER           3                ******** A

6054806 P-R-2       3718583.0225 1890                 HURLEY           05/31/06
        BACKFILL   10465470.3316 PIEZOMETER           3                01/04/12 A
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V. IN-STREAM MONITORING SITES
Required

MPID	Outfall Facility	State Plane N State Plane E	Stream Name	Quad Sec	Added Deleted	Stat
0004275	S-3	3717046.1696	669	HURLEY	05/31/06	
	DN/391/489	10459609.7370	MIDDLE ELK CR	3	********	A
0007569	BAS-2A	3713112.5842	667	HURLEY	08/15/16	
	DOWNSTREAM	10460987.7323	UPPER ELK CRE	*	********	A
0007586	BAS-2	3718056.3881	669	HURLEY	01/04/12	
	UPSTREAM	10462471.5630	MIDDLE ELK CR	*	********	A
0007587	BAS-3	3714064.4735	673	PANTHER	01/04/12	
	DOWNSTREAM	10463779.7000	BUFFALO FORK	*	********	A
0010312	BAS-1	3723322.3803	668	HURLEY	08/15/16	
	DOWNSTREAM	10463294.3720	LOWER ELK CRE	*	********	PP
0010313	BAS-4	3723213.1400	1003	PANTHER	08/15/16	
	DOWNSTREAM	10470503.6900	LONG BRANCH	*	********	PP
0010314	BAS-5	3717046.1696	669	HURLEY	08/15/16	
	DOWNSTREAM	10459609.7370	MIDDLE ELK CR	*	********	PP
0010315	BAS-6	3725632.9536	668	MAJESTIC	08/15/16	
	DOWNSTREAM	10462560.8490	LOWER ELK CRE	*	********	PP
6020041	S-2A	3713112.5842	667	HURLEY	05/31/06	
	UPSTREAM	10460987.7323	UPPER ELK CRE	3	********	A
6020070	S-1	3723322.3803	668	HURLEY	05/31/06	
	DOWNSTREAM	10463294.3720	LOWER ELK CRE	3	********	A
6020071	S-2	3718056.3881	669	HURLEY	05/31/06	
	DOWNSTREAM	10462471.5635	MIDDLE ELK CR	3	********	A
6120001	S-1A	3723437.1721	1003	PANTHER	05/31/06	
	UPSTREAM	10470794.2540	LONG BRANCH	1	********	A

VI. RAINFALL MONITORING SITES
Required

MPID	Facility	State Plane N	State Plane E	Added	Deleted	Stat
0008997	1101966	3717174.6410	10466313.4390	08/15/16	********	A