

Hampden Coal, LLC

3228 Summit Square Place, Suite 180, Lexington, Kentucky 25601
Telephone: 304.792.8236

Muddy Bridge 2 Gas Screening Facility

General Permit Application

Registration Application No. - Pending

September 5, 2016

Prepared by:

Heritage Technical Associates, Inc.

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WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475 • www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

- CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE
 CLASS II ADMINISTRATIVE UPDATE

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- | | |
|--|---|
| <input checked="" type="checkbox"/> G10-D – Coal Preparation and Handling | <input type="checkbox"/> G40-C – Nonmetallic Minerals Processing |
| <input type="checkbox"/> G20-B – Hot Mix Asphalt | <input type="checkbox"/> G50-B – Concrete Batch |
| <input type="checkbox"/> G30-D – Natural Gas Compressor Stations | <input type="checkbox"/> G60-C - Class II Emergency Generator <input type="checkbox"/> |
| <input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines | <input type="checkbox"/> G65-C – Class I Emergency Generator |
| <input type="checkbox"/> <input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input type="checkbox"/> G70-A – Class II Oil and Natural Gas Production Facility |

SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office): Hampden Coal, LLC		2. Federal Employer ID No. (FEIN): 30-0838241	
3. Applicant's mailing address: 3228 Summit Square Place, Suite 180 Lexington, KY 25601		4. Applicant's physical address: Route 10 near Gillman Bottom	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation:			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
<input type="checkbox"/> IF YES , provide a copy of the Certificate of Incorporation/ Organization / Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . <input type="checkbox"/> IF NO , provide a copy of the Certificate of Authority / Authority of LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			

SECTION II. FACILITY INFORMATION

7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): Coal Screening Facility	8a. Standard Industrial Classification (SIC) code: 1222	AND	8b. North American Industry Classification System (NAICS) code: 212112
9. DAQ Plant ID No. (for existing facilities only): Not applicable	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): None		

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site: Muddy Bridge 2 Gas Screening Facility	12A. Address of primary operating site: Route 10 near Gillman Bottom	
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES, please explain: Owner and Operator <input type="checkbox"/> IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		
14A. <input type="checkbox"/> For Modifications or Administrative Updates at an existing facility, please provide directions to the present location of the facility from the nearest state road; — For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a MAP as Attachment F. From Man, WV travel east approx. 5.5 miles on Route 10. Turn left onto the haulroad up Muddy Bridge Branch of Huff Creek. Travel up hill to first portal area on the right. (See Attachment F)		
15A. Nearest city or town: Davin (Nearest Post Office)	16A. County: Logan	17A. UTM Coordinates: Northing (KM): 4177.6982 Easting (KM): 432.0782 Zone: 17N
18A. Briefly describe the proposed new operation or change (s) to the facility: Coal Screening Facility		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: 37.744059 Longitude: -81.770943

B: 1ST ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits)

11B. Name of 1 st alternate operating site: _____ _____	12B. Address of 1 st alternate operating site: Mailing: _____ Physical: _____ _____	
13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES, please explain: _____ _____ <input type="checkbox"/> IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		

14B. For **Modifications or Administrative Updates** at an existing facility, please provide directions to the present location of the facility from the nearest state road;

— For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a **MAP as Attachment F**.

15B. Nearest city or town:	16B. County:	17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
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18B. Briefly describe the proposed new operation or change (s) to the facility:	19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____
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C: 2ND ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):

11C. Name of 2 nd alternate operating site: _____	12C. Address of 2 nd alternate operating site: Mailing: _____ Physical: _____
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13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? **YES** **NO**

IF **YES**, please explain: _____

IF **NO**, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.

14C. For **Modifications or Administrative Updates** at an existing facility, please provide directions to the present location of the facility from the nearest state road;

— For Construction or Relocation permits, please provide directions to the proposed new site location from the nearest state road. Include a **MAP as Attachment F**.

15C. Nearest city or town:	16C. County:	17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
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18C. Briefly describe the proposed new operation or change (s) to the facility:	19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____
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<p>20. Provide the date of anticipated installation or change:</p> <p>____/____/____</p> <p><input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :</p> <p>____07____/____07____/____2015____</p>	<p>21. Date of anticipated Start-up if registration is granted:</p> <p>____07____/____07____/____2015____</p>
<p>22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).</p> <p>Hours per day ____16____ Days per week ____5____ Weeks per year ____52____ Percentage of operation ____48%____</p>	

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

<p>23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>
<p>24. Include a Table of Contents as the first page of your application package.</p>
<p>All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.</p>
<p>25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ATTACHMENT A : CURRENT BUSINESS CERTIFICATE <input checked="" type="checkbox"/> ATTACHMENT B: PROCESS DESCRIPTION <input checked="" type="checkbox"/> ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS <input checked="" type="checkbox"/> ATTACHMENT D: PROCESS FLOW DIAGRAM <input checked="" type="checkbox"/> ATTACHMENT E: PLOT PLAN <input checked="" type="checkbox"/> ATTACHMENT F: AREA MAP <input checked="" type="checkbox"/> ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM <input checked="" type="checkbox"/> ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS <input checked="" type="checkbox"/> ATTACHMENT I: EMISSIONS CALCULATIONS <input checked="" type="checkbox"/> ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT <input checked="" type="checkbox"/> ATTACHMENT K: ELECTRONIC SUBMITTAL <input checked="" type="checkbox"/> ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE <input type="checkbox"/> ATTACHMENT M: SITING CRITERIA WAIVER <input type="checkbox"/> ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) <input type="checkbox"/> ATTACHMENT O: EMISSIONS SUMMARY SHEETS <input type="checkbox"/> OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.) <p>Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.</p>

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

G I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

G I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

G I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

G I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

G I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

G I certify that I am the Owner and Proprietor

G I hereby certify that (please print or type) **D. Edward Brown**

is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature _____
(please use blue ink) Responsible Official Date

Name & Title **D. Edward Brown, Vice President**
(please print or type)

Signature _____
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name **Hampden Coal, LLC**

Phone & Fax **304.792.8236** **304.553.0027**
Phone Fax

Email **ebrown@blackhawkmining.com**

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Attachment A

Current Business Certificate

State of West Virginia



Certificate

*I, Natalie E. Tennant, Secretary of State,
of the State of West Virginia, hereby certify that*

Hampden Coal, LLC

has filed the appropriate registration documents in my office according to the provisions of the West Virginia Code and hereby declare the organization listed above as duly registered with the Secretary of State's Office

*Given under my hand and
the Great Seal of West Virginia
on this day of
September 04, 2014*



Natalie E. Tennant

Secretary of State

Attachment B

Detailed Process Description

Raw coal would arrive from the underground deep mine via TP-01 (FE) to the run-of-mine belt [BC-01(PE)]. The transfer point [TP-01 (FE)] would be located underground and has no dust control other than confinement in the mine. The run-of-mine belt [BC-01 (PE)] would be covered and would feed into the screen [SS-01 (FE)] at the transfer point at the top of the screen [TP-02 (PE)]. The transfer point [TP-02 (PE)] would be enclosed and would be located at the top of the screen. The run-of-mine material would be screened in the screen [SS-01 (FE)] into two products, coal and rock.

Rock would leave the screen via a transfer point [TP-03A (FE)] at the bottom of the screen and would drop onto the first of two rock belts. The first rock belt [BC-02 (PE)] would transfer the rock to a transfer point [TP-05 (MDH)] and onto the second rock belt [BC-05 (PE)]. The second rock belt, in turn, would convey the rock through the transfer point [TP-07 (MDH)] at the end of the belt into the rock stockpile [OS-01]. Rock would then be loaded by a rubber tired endloader [TP-09 (MDH)] into trucks which transport the rock from the site.

Coal would leave the screen via a transfer point [TP-03 (FE)] at the bottom of the screen and would drop onto the first of two coal belts. The first coal belt [BC-03 (PE)] would transfer the coal to a transfer point [TP-04 (MDH)] and onto the second coal belt [BC-04 (PE)]. The second rock belt, in turn, would convey the rock through the transfer point [TP-06 (MDH)] at the end of the belt into the coal stockpile [OS-02]. Coal would then be loaded by a rubber tired endloader [TP-08 (MDH)] into trucks which transport the rock from the site.

When necessary, the roadway and the area where the endloader operates would be watered to minimize dust creation.

Attachment C

Description of Fugitive Emissions

Potential sources of fugitive particulate emissions for this proposed facility include emissions, which are not captured by pollution control equipment, emissions from open stockpiles, and emissions from vehicular traffic on unpaved haulroads and work areas. Fugitive dust from haulroads and work areas would be controlled by the application of water via water truck in accordance with the general permit.

The water truck would be equipped with pumps sufficient to maintain stockpiles, haulroads and work areas. The water truck would be expected to apply water to the haulroad and work areas three times daily or possibly more frequently during dry periods. Additives to prevent freezing may be utilized during winter months when freezing conditions are present.

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Attachment D

Process Flow Diagram

TP-01
Deep Mine

BC-01

TP-02

SS-01

TP-04

BC-03

TP-03 TP-03A

BC-02

TP-05

BC-04

TP-06

TP-08

Coal Stockpile
OS-02

TP-09

TP-07

Rock Stockpile
OS-01

Attachment E

Hampden Coal, LLC

Muddy Bridge 2 Gas Screening Facility
Process Flow Diagram



TECHNICAL ASSOCIATES, INC.

Date: Sept. 05, 2016

CAD by: LGR

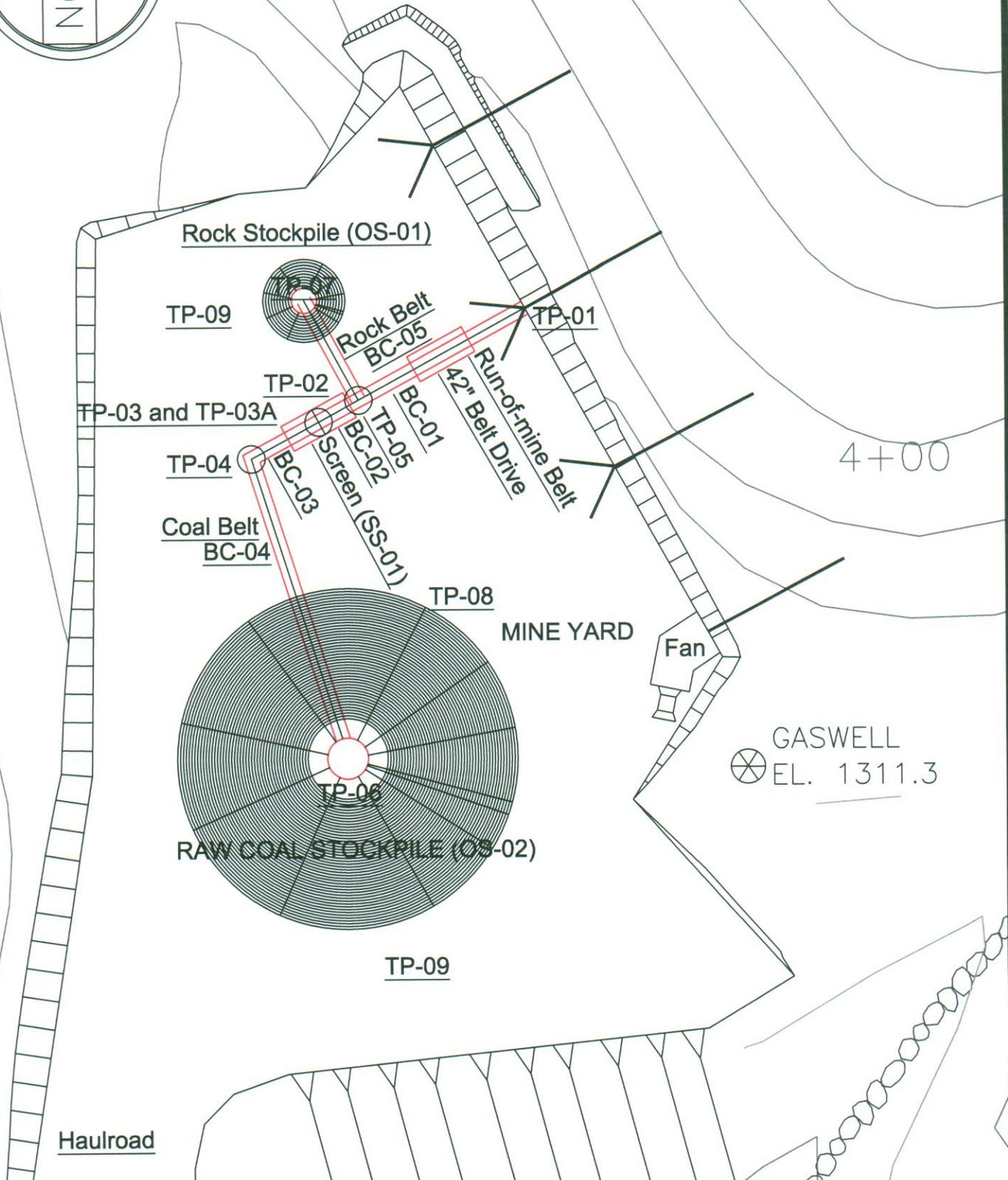
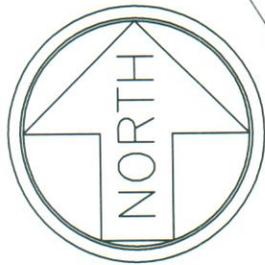
Scale: Not to scale

Project: 16141

Hampden Coal, LLC
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Attachment E

Site Plan Map



Attachment E

Date: Sept. 05, 2016 CAD by: LGR
Scale: 1" = 50' Project: 16141

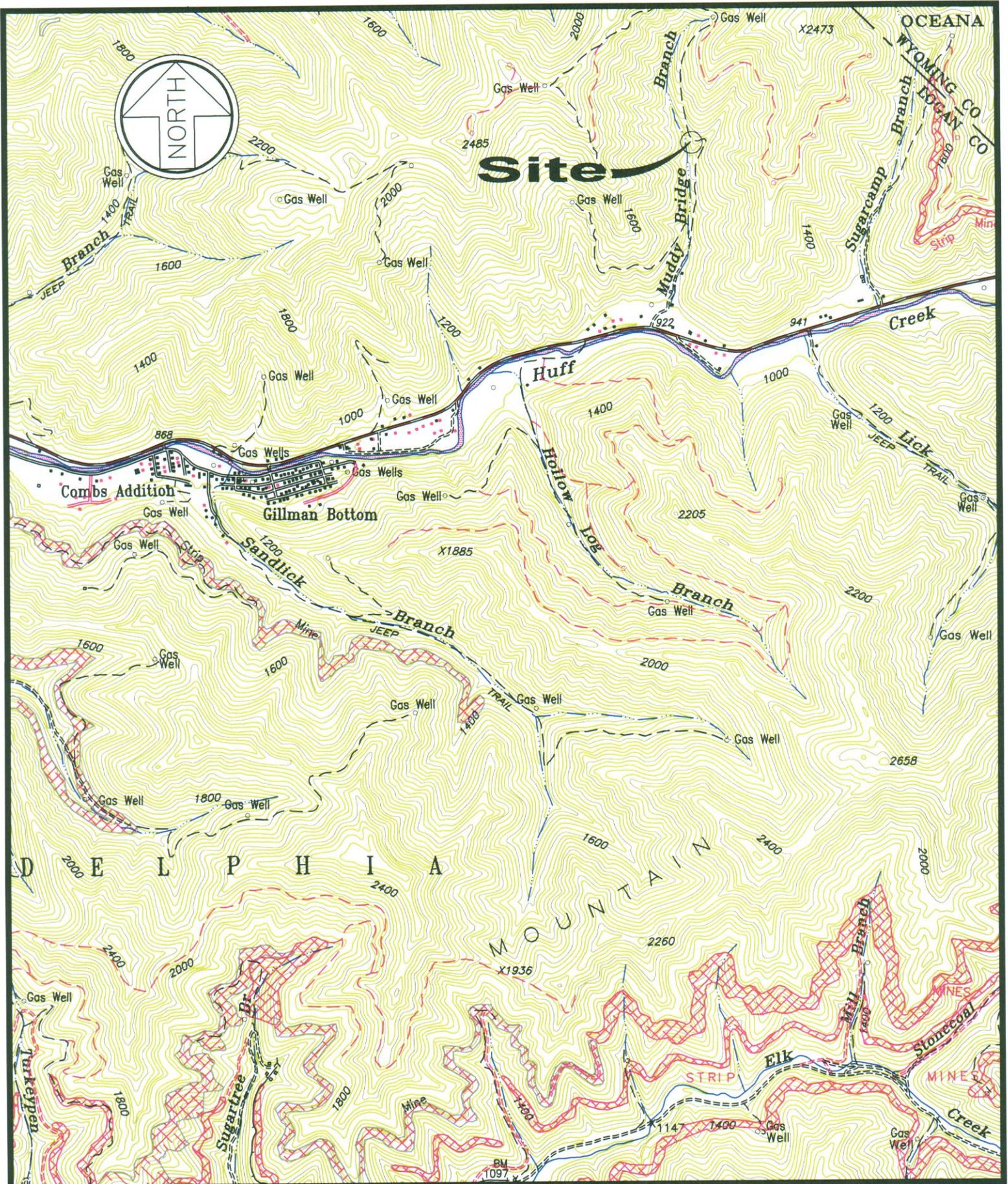
Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
Site Plan



Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
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Attachment F

Location Map



Attachment F

Taken from Mallory Quad of 7.5 Series USGS Topo Maps

Date: Sept. 05, 2016	CAD by: LGR
Scale: 1" = 2000'	Project: 16141

Hampden Coal, LLC
 Muddy Bridge 2 Gas Screening Facility
 Location Map

HERITAGE
 TECHNICAL ASSOCIATES, INC.

Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
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Attachment G

Affected Source Sheets

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

Source Identification Number ¹		SS-01					
Type of Crusher or Screen ²		SD (FE)					
Make, Model No., Serial No. ³		6"x16" Allis Chalmers Vibrating Screen					
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		7/7/15					
Maximum Throughput ⁵	tons/hour	450					
	tons/year	3,942,000					
Material sized from/to: ⁶		4x0					
Average Moisture Content (%) ⁷		4.11					
Control Device ID Number ⁸		FE					
Baghouse Stack Parameters ⁹	height (ft)						
	diameter (ft)						
	volume (ACFM)						
	exit temp (°F)						
	UTM Coordinates						
Maximum Operating Schedule ¹⁰	hours/day	24					
	days/year	365					
	hours/year	8,760					

1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
2. Describe types of crushers and screens using the following codes:

HM	Hammermill	SS	Stationary Screen	DR	Double Roll Crusher
SD	Single Deck Screen	BM	Ball Mill	DD	Double-Deck Screen
RB	Rotary Breaker	TD	Triple Deck Screen	JC	Jaw Crusher
GC	Gyratory Crusher	OT	Other		
3. Enter the make, model number, and serial number of the crusher/screen.
4. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
5. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
6. Describe the nominal material size reduction (e.g. +2"/ -3/8").
7. Enter the average percent moisture content of the material processed.
8. Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A - *Control Device Listing and Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.
9. Enter the appropriate stack parameters if a baghouse control device is used.
10. Enter the maximum operating schedule for each crusher and screen in hours per day, days per year and hours per year.

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-01	OS-02				
Type of Material Stored ²	R	RC				
Average Moisture Content (%) ³	4.11	4.11				
Maximum Yearly Storage Throughput (tons) ⁴	394,200	3,547,800				
Maximum Storage Capacity (tons) ⁵	470	5,089				
Maximum Base Area (ft ²) ⁶	855	6,361				
Maximum Pile Height (ft) ⁷	20	50				
Method of Material Load-in ⁸	SS	SS				
Load-in Control Device Identification Number ⁹	SL-MDH	SL-MDH				
Storage Control Device Identification Number ⁹	SW-WS	SW-WS				
Method of Material Load-out ⁸	FE	FE				
Load-out Control Device Identification Number ⁹	LR-MDH	LR-MDH				

- Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS	Bin or Storage Silo (full enclosure)	E3	Enclosure (three sided enclosure)
OS	Open Stockpile	SB	Storage Building (full enclosure)
SF	Stockpiles with wind fences	OT	Other
- Describe the type of material stored or stockpiled. (e.g. clean coal (CC), raw coal (RC), refuse (R), sized coal (SC), other (O))
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS	Clamshell	SS	Stationary Conveyor/Stacker
FC	Fixed Height Chute from Bins	ST	Stacking Tube
FE	Front Endloader	TC	Telescoping Chute from Bins
MC	Mobile Conveyor/Stacker	TD	Truck Dump
UC	Under-pile or Under-Bin Reclaim Conveyor	PC	Pneumatic Conveyor/Stacker
RC	Rake or Bucket Reclaim Conveyor	OT	Other
- Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - *Control Device Listing and Control Device Identification Number Instructions* in the Reference Document for Control Device ID prefixes and numbering.

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Attachment H

Baghouse Air Pollution Control Device Sheet

(Not applicable to this application)

BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number:
2. Manufacturer's name and model identification:
3. Number of compartments in baghouse:
4. Number of compartments online during normal operation and conditions:
5. Gas flow rate into baghouse: _____ ACFM @ _____ °F and _____ PSIA
6. Total cloth area: _____ ft²
7. Operating air to cloth ratio: _____ ft/min
8. Filter media type:
9. Stabilized static pressure drop across baghouse: _____ inches H₂O
10. Baghouse operation is:
 Continuous Automatic Intermittent
11. Method used to clean bags:
 Shaker Pulse jet Reverse jet Other
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
Entering baghouse: _____ lb/hr and _____ grains/ACF
Exiting baghouse: _____ lb/hr and _____ grains/ACF
13. Guaranteed minimum baghouse collection efficiency: _____ %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
15. Describe the method of disposal for the collected material:

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Attachment I

Emissions Calculations

EMISSIONS SUMMARY

Name of applicant: Hampden Coal, LLC
 Name of plant: Muddy Bridge 2 Gas

Particulate Matter or PM (for 45CSR14 Major Source Determination)

Uncontrolled PM		Controlled PM	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	0.06	0.24	0.06	0.24
<i>Unpaved Haulroad Emissions</i>	530.89	1,262.06	159.27	378.62
<i>Paved Haulroad Emissions</i>	45.73	93.12	13.72	27.94
Fugitive Emissions Total	576.67	1,355.42	173.04	406.80

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	45.00	197.10	9.00	39.42
<i>Transfer Point Emissions</i>	1.42	6.23	0.92	4.05
Point Source Emissions Total*	46.42	203.33	9.92	43.47

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

Facility Emissions Total	623.09	1,558.75	182.96	450.26
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 43.47**
 (Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

Uncontrolled PM-10		Controlled PM-10	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	0.03	0.11	0.03	0.11
<i>Unpaved Haulroad Emissions</i>	156.70	372.51	47.01	111.75
<i>Paved Haulroad Emissions</i>	8.90	18.13	2.67	5.44
Fugitive Emissions Total	165.63	390.76	49.71	117.31

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	21.15	92.64	4.23	18.53
<i>Transfer Point Emissions</i>	0.67	2.95	0.44	1.91
Point Source Emissions Total*	21.82	95.58	4.67	20.44

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

Facility Emissions Total	187.45	486.34	54.37	137.75
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1a. Primary Crushing

Primary Crusher ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.000							

1b. Secondary and Tertiary Crushing

Secondary & Tertiary Crusher ID	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	0.000							

1c. Screening

Screen ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
SS-01	45.000	197.100	9.000	39.420	21.150	92.637	4.230	18.527
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	45.000	197.100	9.000	39.420	21.150	92.637	4.230	18.527

Crushing and Screening	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TOTAL	45.000	197.100	9.000	39.420	21.150	92.637	4.230	18.527

EMISSION FACTORS

source: Air Pollution Engineering Manual and References
(lb/ton of material throughput)

PM	
Primary Crushing	0.02
Tertiary Crushing	0.06
Screening	0.1

PM-10	
Primary Crushing	0.0094
Tertiary Crushing	0.0282
Screening	0.047

2. Emissions From TRANSFER POINTS (continued)

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	1.422	6.227	0.924	4.048	0.672	2.945	0.437	1.914

Source:

AP42, Fifth Edition, Revised 11/2006
 13.2.4 Aggregate Handling and Storage Piles

Emissions From Batch Drop

$$E = k \cdot (0.0032) \cdot [(U/5)^{1.3}] / [(M/2)^{1.4}] = \text{pounds/ton}$$

Where:

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)		
M =	Material Moisture Content (%)		

Assumptions:

k - Particle size multiplier

For PM (< or equal to 30um) k = 0.74
 For PM-10 (< or equal to 10um) k = 0.35

Emission Factor

For PM E= $\$I\$88 \cdot (0.0032) \cdot (((\text{Inputs!}\$I\$72)/5)^{1.3}) / (((\text{Inputs!}G78 + 0.000000001)/2)^{1.4})$
 =lb/ton

For PM-10 E= $\$J\$88 \cdot (0.0032) \cdot (((\text{Inputs!}\$I\$72)/5)^{1.3}) / (((\text{Inputs!}G78 + 0.000000001)/2)^{1.4})$
 =lb/ton

For lb/hr $[\text{lb/ton}] \cdot [\text{ton/hr}] = [\text{lb/hr}]$

For Tons/year $[\text{lb/ton}] \cdot [\text{ton/yr}] \cdot [\text{ton}/2000\text{lb}] = [\text{ton/yr}]$

3. Emissions From WIND EROSION OF STOCKPILES

Stockpile ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
OS1	0.007	0.029	0.007	0.029	0.003	0.014	0.003	0.014
OS2	0.049	0.214	0.049	0.214	0.023	0.101	0.023	0.101
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	0.055	0.243	0.055	0.243	0.026	0.114	0.026	0.114

Source:

Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

$$E = 1.7 * [s/1.5] * [(365-p)/235] * [f/15] = (\text{lb/day/acre})$$

Where:

s =	silt content of material
p =	number of days with >0.01 inch of precipitation per year
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height

Emission Factors

For PM

$$E = (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$$

For PM-10

$$E = 0.47 * (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$$

For lb/hr

$$[\text{lb/day/acre}] * [\text{day}/24\text{hr}] * [\text{base area of pile (acres)}] = \text{lb/hr}$$

For Ton/yr

$$[\text{lb/day/acre}] * [365\text{day}/\text{yr}] * [\text{Ton}/2000\text{lb}] * [\text{base area of pile (acres)}] = \text{Ton/yr}$$

4. Emissions From UNPAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	102.68	229.00	30.80	68.70	30.31	67.59	9.09	20.28
2	336.33	682.24	100.90	204.67	99.27	201.37	29.78	60.41
3	17.11	25.45	5.13	7.63	5.05	7.51	1.52	2.25
4	39.57	75.80	11.87	22.74	11.68	22.37	3.50	6.71
5	32.50	230.58	9.75	69.17	9.59	68.06	2.88	20.42
6	2.70	18.99	0.81	5.70	0.80	5.60	0.24	1.68
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	530.89	1262.06	159.27	378.62	156.70	372.51	47.01	111.75

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.2 Unpaved Roads

Emission Estimate For Unpaved Haulroads at Industrial Sites (equation 1)

$$E = k \cdot (s/12)^a \cdot (W/3)^b = \text{lb/vmt}$$

Where:

		PM	PM-10
k =	particle size multiplier	4.90	1.50
a =	empirical constant	0.7	0.9
b =	empirical constant	0.45	0.45

Emission Factors

For PM $E = ((\$35) \cdot (((\text{Inputs!}\$163)/12)^{(\$36)}) \cdot (((\text{Inputs!}H171)/3)^{\$37}))$

For PM-10 $E = ((\$J35) \cdot (((\text{Inputs!}\$163)/12)^{(\$J36)}) \cdot (((\text{Inputs!}H171)/3)^{\$J37}))$

For lb/hr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per hour})$

For Ton/yr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per year}) \cdot (1/2000)$

5. Emissions From INDUSTRIAL PAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	7.25	16.18	2.18	4.85	1.41	3.15	0.42	0.94
2	33.34	67.63	10.00	20.29	6.49	13.17	1.95	3.95
3	1.21	1.80	0.36	0.54	0.24	0.35	0.07	0.10
4	3.92	7.51	1.18	2.25	0.76	1.46	0.23	0.44
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	45.73	93.12	13.72	27.94	8.90	18.13	2.67	5.44

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

$$E = [k * (sL/2)^{0.65} * (W/3)^{1.5} - C] * (1 - (P/4 * N)) = \text{lb / Vehicle Mile Traveled (VMT)}$$

Where:

		PM	PM-10
k =	particle size multiplier	0.082	0.016
sL =	road surface silt loading, (g/ft ²)	8.2	
P =	number of days per year with precipitation >0.01 inch	157	
N =	number of days in averaging period	365	
C =	factor for exhaust, brake wear and tire wear	0.0047	0.0047

Emission Factors

For PM $E = (k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5}) - C) * (1 - ((Inputs!G190)/4 * N))$

For PM-10 $E = (k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5}) - C) * (1 - ((Inputs!G190)/4 * N))$

For lb/hr (lb/vmt)*(miles per trip)*(Max trips per hour)

For Ton/yr (lb/vmt)*(miles per trip)*(Max trips per year)*(1/2000)

Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
OAQ General Permit Application
HTA Project 16141

Attachment J

Class I Legal Advertisement

Legal Advertisement

Air Quality Permit Notice **Notice of Application**

Notice is hereby given that Hampden Coal, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a General Permit Registration to construct a screening facility located off of WV Route 10 along Muddy Bridge Branch of Huff Creek near the Community of Gillman Bottom in Logan County, West Virginia. The facility coordinates are as follows: Latitude 37.744059 and Longitude -81.70943.

The applicant estimates the potential to discharge the following regulated air pollutants will be: 450.26 TPY of particulate matter ("PM") and 137.75 TPY of particulate matter less than 10 microns ("PM10").

Construction of the project is planned to begin upon permit approval. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality ("DAQ"), 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.

Dated this the ____ day of September, 2016.

By: Hampden Coal, LLC
D. Edward Brown
Vice President
3228 Summit Square Place, Suite 180
Lexington, KY 40509

Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
OAQ General Permit Application
HTA Project 16141

Attachment K

Electronic Submittal Diskette

Hampden Coal, LLC
Muddy Bridge 2 Gas Screening Facility
OAQ General Permit Application
HTA Project 16141

Attachment L

Certification

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

G I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation.

FOR A PARTNERSHIP

G I certify that I am a General Partner.

FOR A LIMITED LIABILITY COMPANY

G I certify that I am a General Partner or General Manager.

FOR AN ASSOCIATION

G I certify that I am the President or a member of the Board of Directors.

FOR A JOINT VENTURE

G I certify that I am the President, General Partner or General Manager.

FOR A SOLE PROPRIETORSHIP

G I certify that I am the Owner and Proprietor.

G I hereby certify that (please print or type) **D. Edward Brown**

is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible.

Signature  09/06/2016
(please use blue ink) Responsible Official Date

Name & Title **D. Edward Brown, Vice President**

(please print or type)

Signature  09/06/2016
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name **Hampden Coal, LLC**

Phone & Fax 304.792.8236 304.553.0027
Phone Fax

Email **ebrown@blackhawkmining.com**