Filed: 2/15/2017 4:33:39 PM WEQC

## **EXHIBIT A**

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Wyoming Department of Environmental Quality

### **Brook Mining Co., LLC - Coal Mining Permit Application 2nd Notice**

Wyoming Department of Environmental Quality sent this bulletin at 01/11/2017 03:59 PM MST

Wyoming Department of Environmental Quality | view as a webpage

Wyoming Department of Environmental Quality

#### Public Notice of Brook Mining Co., LLC Permit Application

The Brook Mining Co., LLC of 1101 Sugarview Drive, Suite 201, Sheridan, WY 82801 has applied for a coal mining permit from the Land Quality Division of the Department of Environmental Quality for the State of Wyoming. The coal mining permit area will be located in: Sections 10, 11, 12, 13, 14 and 15 Township 57N, Range 85W, and Sections 7, 8, 9, 10, 15, 17, 18, 20, 21, 22 and 27 Township 57N, Range 84W Sheridan County, Wyoming. The Brook Mine is located approximately 6 miles Northwest of Sheridan, Wyoming. This area can be found on the Acme and Monarch USGS quadrangle maps. The proposed operation is scheduled to begin July 2017 and is estimated to continue until 2032. The land, after mining, will be returned to a grazing land use. Information regarding the proposed mining operation and reclamation procedures may be reviewed in the Office of the Land Quality Division of the Department of Environmental Quality in Cheyenne and Sheridan, Wyoming, the office of RAMACO in Sheridan, WY, or the Sheridan County Clerk's Office Sheridan, Wyoming. Written objections to the proposed mining operation must be received by the Administrator of the Land Quality Division, Department of Environmental Quality, 200 W. 17th Street, Cheyenne, WY 82002, before the close of business January 27, 2017. The Director may hold an informal conference if requested, hear the complaint and take action on the application in accordance with the Department's Rules of Practice and Procedure. The complainants shall have a right of appeal to the Environmental Quality Council where the complaint will be heard a second time. A conference shall be held if the Director determines that the nature of the complaint or the position of the complainants indicates that an attempt to informally resolve the disputes is preferable to a contested case proceeding. An informal conference or a public hearing shall be held within twenty (20) days after the final date for filing objections unless a different period is stipulated to by the parties. The Council or Director shall publish notice of the time, date and location of the hearing or conference in a newspaper of general circulation in the locality of the proposed

 $1/31/2017 \quad \text{https://mail-attachment.googleusercontent.com/attachment/u/0/?ui=2\&ik=263d798b3d\&view=att\&th=159f5d6ff39e3f07\&attid=0.1\&disp=inline\&realattid=f\_i...}$ 

operation once a week for two (2) consecutive weeks immediately prior to the hearing or conference. The hearing would be conducted as a contested case in accordance with the Wyoming Administrative Procedure Act (W.S. §16-3-101 through §16-3-115), and the right of judicial review would be afforded as provided in that act. All parties as given in W.S. §35-11-406(j) will be mailed a copy of this notice. The Wyoming Oil and Gas Commission will be mailed a copy of the application mine plan map as required by W.S. §35-11-406(j).

Please note that the Wyoming Department of Environmental Quality Cheyenne Office has moved. The new address is:

> 200 West 17th Street Cheyenne, WY 82002

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## **EXHIBIT B**



### Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.





WATER QUALITY

(307) 777-7781

Todd Parfitt, Director

Mr. Jordan Sweeney Big Horn Coal Co. 10980 S. Jordan Gateway South Jordan, UT 84095

RE: Proposed Brook Mine Permit Application, Sheridan County – TFN 6 2/025

**Public Comment Period** 

Dear Mr. Sweeney:

Your letter regarding the proposed Brook Mine permit application has been received by the Department of Environmental Quality (DEQ). The public notice and approval process for such surface coal mine permit applications is addressed in Wyoming Statute § 35-11-406. Several of the comment letters received by the DEQ requested an informal conference be conducted on the permit application and on specific objections to the application.

I have carefully considered the objections received and determined that an attempt to informally resolve the disputes is unlikely to be successful through the informal conference process. Therefore, I am referring this permit application to the Environmental Quality Council (EQC) for their review and determination at a contested case hearing. Your comment letter, and all others received by the Department are being forwarded to the EQC. The EQC will be in contact with you regarding arrangements for a hearing before them. If you would like to contact the EQC directly for more details regarding their process, they can be reached at:

Wyoming Environmental Quality Council 122 W. 25th Herschler Bldg. 1W, Room 1714

Cheyenne, WY 82002

Phone: (307) 777-7170 Email: eqc-all@wyo.gov

Thank you for sharing your comments with the Department regarding this proposed new mine permit application. Your participation in the public review process is important and very helpful to the Department and the State.

Sincerely,

**Todd Parfitt** 

Director

cc:

Date:

Alan Edwards, Deputy Director DEQ

Jim Ruby, Executive Secretary, Wyoming Department of Environmental Quality

200 West 17th Street · Cheyenne, WY 82002 · http://deq.wyoming.gov · Fax (307)635-1784

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## **EXHIBIT C**

### BEFORE THE ENVIRONMENTAL QUALITY COUNCIL STATE OF WYOMING

IN RE BROOK MINE APPLICAT	ION )	
	<b>)</b>	<b>DOCKET 17-4801</b>
TFN 6 2-025	}	
	ORDER	

The Parties shall appear for a short pre-hearing conference in this matter that will be conducted on Thursday, February 2, 2017 at 10:30 a.m. via telephone conference call and in the Board of Equalization Board Room, 1<sup>st</sup> Floor West of the Herschler Building, Cheyenne, Wyoming. The Parties shall provide the EQC office with a direct telephone number and an email address where they can be reached for the pre-hearing on or before noon on February 1, 2017. Failure to appear at the pre-hearing conference may result in dismissal from this case.

DATED this 30th day of January, 2017.

Nick Agopian, Hearing Officer Environmental Quality Council

#### **CERTIFICATE OF SERVICE**

I, James Ruby, certify that at Cheyenne, Wyoming, on the 31th day of January, 2017, I served a copy of the foregoing <u>Scheduling Conference Order</u> by electronic mail or by depositing copies of the same in the United States mail, postage prepaid, and addressed to the following:

John Barbula 124 Kleenburn Rd. Ranchester WY 82839

Anton Bocek 11 Slater Creek Lane Ranchester WY 82839

Brook Collins 38 Monarch Rd Ranchester WY 82839

and by electronic mail to the following:

Andrew Kuhlmann Asst. Attorney General andrew.kuhlmann@wyo.gov

Alan Edwards
Deputy Director, DEQ
Alan.edwards@wyo.gov

Isaac Sutphin Attorney for Brook Mine INSutphin@hollandhart.com

Lynn Boomgaarden
Attorney for Big Horn Coal
Iboomgaarden@crowleyfleck.com
iwacker@crowleyfleck.com
wdrake@crowleyfleck.com

Todd Parfitt
Director, DEQ
Todd.Parfitt@wyo.gov

Shannon Anderson
Powder River Basin Resource Council
sanderson@powderriverbasin.org

Mayor Peter Clark Town of Ranchester mayor@ranchesterwy.com

> Jim Ruby, Executive Officer Environmental Quality Council 122 W. 25th Street

Herschler Bldg., Rm. 1714 Cheyenne, WY 82002 Phone: 307-777-7170

## **EXHIBIT D**

### BEFORE THE ENVIRONMENTAL QUALITY COUNCE ILED STATE OF WYOMING

IN RE BROOK MINE APPLICATION	FEB 0 2 2016
	DOCKET 17-4801 Jim Ruby, Executive Secretary Environmental Quality Council
TFN 6 2-025	) Environmental Quality Council

#### **AMENDED ORDER**

The Parties appeared for a pre-hearing conference in this matter on Thursday, February 2, 2017 at 10:30 a.m. via telephone conference call and in the Board of Equalization Board Room, 1<sup>st</sup> Floor West of the Herschler Building, Cheyenne, Wyoming. Present were Isaac Sutphin and Jeff Pope on behalf of Brook Mine LLC., Andrew Kuhlman and James LaRock on behalf of DEQ, Shannon Anderson and Jill Morrison on behalf of the Powder River Basin Resource Council, Lynn Boomgaarden on behalf of Big Horn Coal, Jay Gilbertz on behalf of Mary Brezik- Fisher, and Brook Collins. Also present for the Council are Jim Ruby, Executive Officer and Joe Girardin, council business coordinator and Ryan Schelhaus from the Attorney General office.

The final hearing in this matter will begin on the 13<sup>th</sup> of February 2017 at 9:00 a.m. and will continue on the 14<sup>th</sup> of February. In the event the hearing cannot be completed by the end of the 14<sup>th</sup> the Council will schedule the conclusion for a later day.

The following schedule is set for this hearing. Any preliminary motions shall be filed no later than February 6, 2017. Responses to the motions shall be filed by February 9<sup>th</sup> 2017. The hearing on any motions will be heard by the Council on February 13<sup>th</sup> prior to the final hearing. The deadline for naming of expert witnesses, sending of any written interrogatories and requests for production is February 6, 2017. Responses to Interrogatories and Requests for Production will be February 10, 2017. The deadline for identification of all exhibits and witnesses to be used or called at the time of trial along with expert disclosures is February 10, 2017. The

deadline for filing any motions to strike, motions in limine etc. is February 10, 2017 and responses shall be filed no later than February 13, 2017 at 8:30 a.m.

The parties may file prehearing memorandum no later than February 10, 2017.

DATED this 2nd day of February, 2017.

Tim Flitner, Henring Officer Environmental Quality Council

#### **CERTIFICATE OF SERVICE**

I, Joe Girardin, certify that at Cheyenne, Wyoming, on the 2<sup>nd</sup> day of February, 2017, I served a copy of the foregoing <u>Amended Order</u> by electronic mail addressed to the following:

Andrew Kuhlmann Asst. Attorney General andrew.kuhlmann@wyo.gov

Alan Edwards
Deputy Director, DEQ
Alan.edwards@wyo.gov

Isaac Sutphin
Attorney for Brook Mine
INSutphin@hollandhart.com

Lynn Boomgaarden
Attorney for Big Horn Coal
<a href="mailto:lboomgaarden@crowleyfleck.com">lboomgaarden@crowleyfleck.com</a>
jwacker@crowleyfleck.com

Brook Collins 38 Monarch Rd Ranchester WY 82839 bpcharlie@wbaccess.net

wdrake@crowleyfleck.com

Todd Parfitt Director, DEQ Todd.Parfitt@wyo.gov

Shannon Anderson
Powder River Basin Resource Council
sanderson@powderriverbasin.org

Mayor Peter Clark
Town of Ranchester
mayor@ranchesterwyoming.com

Jay Gilbertz Attorney for Mary and David Brezik-Fisher jgilbertz@yonkeetoner.com

Toe Girardin, Council Business Coordinator

Environmental Quality Council 122 W. 25<sup>th</sup> Street

Herschler Bldg., Rm. 1714

Cheyenne, WY 82002 Phone: 307-777-7170

### **EXHIBIT E**

Filed: 2/7/2017 9:24:09 AM WEQC

# BEFORE THE ENVIRONMENTAL QUALITY COUNCILED STATE OF WYOMING FEB 0 7 2016

IN RE BROOK MINE APPLICATION	)	Jim Ruby, Executive Secretary DOCKET 17 Highmental Quality Gounce
TFN 6 2-025	)	

### ORDER VACATING CONTESTED CASE HEARING AND SETTING ORAL ARGUMENT

Upon review of the recent pleadings filed by Powder River Basin Resource Council, Mary Brezik-Fisher and David Fisher, and Big Horn Coal Company, and upon review of Wyo. Stat. Ann. § 35-11-406(k), I believe the parties need to address the issue of whether there is a proper appeal before the Council at this time necessitating a contested case. As a result, the parties are asked to brief the issue of whether there is a proper appeal before the Council at this time that necessitates a contested case. Because I want to provide the parties time to brief this issue and for the Council to fully consider and decide the issue, the contested case set for February 13 and 14 is vacated.

THEREFORE, the motion hearing and final contested case hearing scheduled for February 13 and 14, 2017 is vacated. Further, the parties have until February 15, 2017, by 5:00 p.m. to file briefs on the issue set forth above. A teleconference before the Council to hear oral arguments on this issue will be held on February 21, 2017, at 1:30 p.m. in Room 1699, 1st Floor West, Herschler Building 122 West 25th St. Cheyenne WY. The parties may participate by phone by providing advance notice to the Council.

SO ORDERED this 7th day of February, 2017.

Tim Flitner, Hearing Officer 12 Environmental Quality Council Environmental Quality Council Room 1714 1st Floor West Herschler Building 122 West 25th St. Cheyenne WY 82002

#### **CERTIFICATE OF SERVICE**

I, Jim Ruby, certify that at Cheyenne, Wyoming, on the 2<sup>nd</sup> day of February, 2017, I served a copy of the foregoing <u>ORDER VACATING CONTESTED CASE HEARING AND</u> <u>SETTING ORAL ARGUMENT</u> by electronic mail addressed to the following:

Andrew Kuhlmann
Asst. Attorney General
andrew.kuhlmann@wyo.gov

Alan Edwards
Deputy Director, DEQ
Alan.edwards@wyo.gov

Jeff Pope
Isaac Sutphin
Attorneys for Brook Mine
jspope@hollandandhart.com
INSutphin@hollandhart.com
jmkelley@hollandhart.com
csvec@hollandhart.com

Lynn Boomgaarden
Attorney for Big Horn Coal
Iboomgaarden@crowleyfleck.com
jwacker@crowleyfleck.com
wdrake@crowleyfleck.com

Todd Parfitt Director, DEQ Todd.Parfitt@wyo.gov

Shannon Anderson Powder River Basin Resource Council sanderson@powderriverbasin.org

Brooke Collins 38 Monarch Rd Ranchester WY 82839 bpcharlie@wbaccess.net

Jay Gilbertz
Attorney for Mary Brezik-Fisher and David Fisher jgilbertz@yonkeetoner.com

Jim Ruby, Concil Pasinoss Cooplinger

**Environmental Quality Council** 

122 W. 25th Street

Herschler Bldg., Rm. 1714 Cheyenne, WY 82002

Phone: 307-777-7170

# EXHIBIT F

Lynnette Boomgaarden

237 Storey Blvd. Suite #110 Cheyenne, WY 82009 Phone: 307-772-4100

Fax: 307-426-4099

lboomgaarden@crowleyfleck.com

CROWLEY FLECK PLLP

February 15, 2017

VIA: Kyle.Wendtland@wyo.gov Todd.Parfitt@wyo.gov

Kyle Wendtland, Administrator Land Quality Division Wyoming Department of Environmental Quality 200 W. 17<sup>th</sup> Street, Suite 10 Cheyenne, WY 82002

Todd Parfitt, Director Wyoming Department of Environmental Quality 200 W. 17<sup>th</sup> Street Cheyenne, WY 82002

> RE: Renewed Request for an Informal Conference regarding Big Horn Coal Company's Written Objections to Brook Mining Co., LLC's Coal Mining Permit Application, DEQ File No. TFN 6 2-025

Dear Mr. Wendtland and Mr. Parfitt,

On behalf of Big Horn Coal Company ("Big Horn"), and for the reasons stated in Objector Big Horn Coal Company's Brief Addressing Whether the Environmental Quality Council Presently has Jurisdiction over this Matter, I am renewing Big Horn's previous request for an administrative informal conference pursuant to Wyo. Stat. Ann. § 35-11-406(k) and Wyo. Admin. Code ENV PP Ch. 3 § 3.

The requested conference shall be for the purpose of considering Big Horn's written objections to Brook Mining Company's surface coal mining permit application, DEQ File No. TFN 6 2-025, filed with Mr. Wendtland on January 25, 2017. In accordance with the Rules and Regulations, the primary issues to be addressed at this conference shall include: (1) whether Brook Mine has or can meet its burden of satisfying all requirements for permit approval

Request for Informal Conference February 15, 2017 Page 2

pursuant to Wyo. Stat. Ann. § 35-11-406(n) and the related Rules and Regulations; and (2) the merits of Big Horn's technical objections to Brook Mine's permit application, which primarily relate, but are not limited, to hydrologic data and impacts, material testing and data, sloughing, existing subsurface fire activity and related controls, and subsidence. Big Horn staunchly believes these issues can be best addressed, and possibly resolved or narrowed, in the context of an open, candid, informal conference with Big Horn representatives, Brook Mine and its consultants, and the DEQ technicians who reviewed and will take action on Brook Mine's mine and reclamation plans and any accompanying data. Pursuant to Wyo. Admin. Code ENV PP Ch. 3 § 1, Big Horn requests that a record of the conference be made.

Big Horn does not request that the conference be held in the locality of the proposed mining operation and does not request access to the proposed permit area. However, if another interested party requests these accommodations, Big Horn has no objection thereto.

Big Horn requests that the informal conference be held as soon as practicable.

Sincerely,

CROWLEY FLECK PLLP

LYNNE BOOMGAARDEN

<sup>&</sup>lt;sup>1</sup> A copy of Big Horn's objections to the Brook Mine permit application filed in this matter is attached hereto as **Exhibit A**.

## **EXHIBIT A**



#### BIG HORN COAL COMPANY 10980 SOUTH JORDAN GATEWAY SOUTH JORDAN, UT 84095

January 25, 2017

Wyoming Department of Environmental Quality Land Quality Division 200 W. 17<sup>th</sup> Street Cheyenne, WY 82002

ATTN: Mr. Alan Edwards, Assistant Administrator

RE: Objections to Proposed Brook Mine Permit Application, Sheridan County, Wyoming

Dear Mr. Wendtland,

Big Horn Coal Company (BHCC) writes to provide objections to the Brook Mine permit application.

During the course of our review, we discovered that the information was inconsistent among the locations noted in the public notice. We advised Brook Mine's legal counsel of the inconsistency on December 20, 2016. We are not aware if the information was updated to correct the inconsistency between the locations.

Our objections are based upon what BHCC believes to be the most accurate, up-to-date information and relate primarily to the permit application's lack of adequately addressing hydrologic issues that could significantly affect existing and future water rights, the quantity and quality of surface water and groundwater within and adjacent to BHCC, the potential for coal seam fires to erupt in both the open pit and subsurface openings and the potential for miner safety and environmental harm proposed in the permit Mine Plan. The objections are referenced to text section headings, exhibits and addenda of the permit application Mine and Reclamation Plan.

#### Objection No. 1 – Mine Plan & Rec Plan Review

Big Horn Coal has reviewed the proposed mine and reclamation plan and is concerned with the general lack of detail contained in the proposed plan. It appears that no sampling, testing or analytical work of any sort has been performed to support the surface and highwall mine designs and plans. It is Big Horn Coal's opinion that excavating in the area, surrounding the Big Horn Mine will create a large safety concern and environmental

liability as the TR-1 trench cut could become inundated with water from the historic backfill of the BHCC spoils of Pit 1 and Pit 2.

BHCC would like to put on record that it is providing written notice of its concerns so Brook Mine and other affected parties have notice and are aware of these issues and that Big Horn Coal is not responsible for any personal, property or environmental damage or other loss due to the disturbance activities associated with the Brook Mine, its affiliated companies or successors in interest.

BHCC has not consented to overlapping permit boundaries nor has it been indemnified of any disturbance related to Brook Mine's proposed activities as it relates to the reclamation obligations and BHCC's reclamation liabilities.

### Objection No. 2 – Section MP.4; Exhibit MP.4-1; Section MP.5; Section MP.13; Addendum MP-6

Section MP.4 and Exhibit MP.4-1 provide plans for the development of a highwall mining trench through and the development of highwall mining panels beneath reclaimed backfill of BHCC Pits 1 and 2 adjacent to Goose Creek and the Tongue River in the southeastern portion of the Brook Mine permit area. The trench would penetrate through the bottom of the backfill allowing mining of Carney coal found about 70 feet beneath the backfill. The backfill of the proposed trench area averages about 90 feet thick. The northeast corner of the highwall panel area appears on Exhibit MP.4-1 to be equivalent to the Brook Mine permit boundary, and would be less than 100 feet from the bank of the Tongue River. On Figure MP-6.1-1 of Addendum MP-6, the highwall mining panels are shown even closer to the Tongue River channel, and the reason for the disparity between the figure and Exhibit MP.4-1 is unexplained. BHCC is very concerned over and objects to the permit's disturbance, affected and permit boundaries all being equivalent to the mining panel boundary in this most environmentally sensitive area adjacent to the bank of the Tongue River. The affected area boundary shown on Exhibit MP.4-1 around the other proposed mining panels typically extends well beyond the disturbance boundary for reasons unexplained in the Mine Plan.

Mine Plan Section MP.4, together with all Mine Plan text inclusive of Section MP.13 and Addendum MP-6, are silent on the subject of the special textural and hydrologic characteristics of the proposed southeastern highwall mining area in Sections 15 and 22. T57N, R84W. The area is unique in that the strata overlying the coal to be mined includes a thick layer of unconsolidated, saturated backfill exhibiting shallow groundwater elevations of 20 feet or less below ground surface where existing ground elevations are 3600 feet and lower. The water surface in BHCC's postmining Reservoir 14 in the SESE Sec. 15 is an expression of the groundwater table. The groundwater throughout Pits 1 and 2 is directly connected to and recharged by Goose Creek and the Tongue River, as documented in the Big Horn Mine's Reclamation History, Groundwater Restoration Demonstration (GRD) approved by the WDEQ/LQD as Change No. 9 to Permit 213-T5 in August 2002. The GRD verifies that the Pits 1 and 2 backfill resaturated very rapidly, indicative of unconsolidated, porous material connected to perennial stream recharge sources nearby. Mine Plan Section MP.4 is silent on the subject of managing massive sloughing that may occur in the saturated and nonsaturated backfill of the southeastern highwall mining area as the highwall mining trenches are excavated through the backfill to the base of Carney coal. Section MP-5 of the Mine Plan also fails to present an

alternative water management and treatment plan to be followed should groundwater inflow volumes exceed infrastructure design capacities.

BHCC finds the assessment of potential land subsidence and the remediation plan presented for land subsidence in Addendum MP-6 to be inadequate relative to protecting the value and function of its lands, particularly for protecting the stability of the Tongue River and the quality of shallow groundwater connected to the river. Addendum MP-6 does not absolutely discount the possibility of land subsidence above the highwall miner holes, nor does it provide a plan for the discontinuation of any southeastern area highwall mining should subsidence occur in the lowlands contiguous to Tongue River or Goose Creek. The environmental implications of subsidence developing adjacent to Tonque River and Goose Creek are so severe as to warrant, at a minimum, a permit commitment to temporarily or permanently cease all mining throughout all of the southeastern highway mining area should any subsidence develop in any of the area at any time. The permit's plan for "backfilling will commence within 12 months of a subsidence location being identified if self-healing is not providing sufficient remediation" (Section MP-6.4, Addendum MP-6) is environmentally unacceptable for the southeastern highwall mining area because: 1) the stability and alignment of Goose Creek and Tongue River could be jeopardized should subsidence occur, and; 2) any groundwater quality impacts associated with underground coal fires developing in mine openings would have direct and essentially immediate access to Goose Creek and Tongue River via the shallow groundwater table.

The subsidence control plan presented in Addendum MP-6 is inadequate. It appears that no analytical work of any sort (sampling, material testing, etc.) has been performed in support of the highwall mining design presented in the mine plan. Additionally, it also appears that no geotechnical work of any sort has been performed. Addendum MP-6 discusses general assumptions for highwall mining penetration depths, entry widths, cutting heights and support pillars. This information is presented somewhat anecdotally and in the case of the support pillars, it states that "Support pillars will be designed to have a width equal to or exceeding the maximum extraction thickness anticipated in a highwall mining hole based on the mine's geologic model. This width-to-height ratio of at least 1:1 results in pillar stability factors that exceed recommended values suggested by National Institute for Occupational Safety and Health's (NIOSH) ARMPS-HWM stability program for the overburden thicknesses expected. Pillar dimension will also be in accordance with Brook Mine's Ground Control Plan approved by MSHA."

No material strength data (coal strength, overburden strength, interburden strength, etc.) is provided in the mine plan document. BHCC suspects that no material strength information has been gathered or determined. Can the NIOSH stability factors actually be achieved? This is unknown at this point as no definitive geotechnical and material strength data has been presented in the mine plan. The coals present in this area are of a younger age. Younger age coals have much weaker strengths than older age, deeper coals and it is quite possible that the safety and stability factors needed to safely and effectively execute the highwall mining approach presented in the mine plan cannot be achieved. BHCC insists that further analysis be performed to definitively prove that the web and barrier pillars dimensions are appropriate and that they will meet NIOSH's minimum stability factor of 1.3.

Very little highwall mining has been performed in Wyoming. Highwall mining has been performed relatively recently at the Bridger Mine, which is located in Southwest Wyoming.

While the exact details are unknown, BHCC is aware of at least one "cascading pillar failure" at that operation and fortunately, there were no injuries. It is suspected that this failure was caused by improper pillar layout and design. BHCC is concerned that the anecdotal mine design presented in this document is inadequate and must be performed with proper analytical data.

#### Objection No. 3 - Section MP.5.9; Section MP.6.2; Addendum MP-3; Section MP.8

The groundwater model of Addendum MP-3 was improperly constructed and executed because the model does not recognize the unique textural and hydraulic characteristics of saturated backfill in BHCC's Pits 1 and 2, but instead simulates the backfill in the same fashion as native overburden strata (see Section 4.0 of Addendum MP-3). Section 2.5.1 of Addendum MP-3 states "no site-specific hydraulic conductivity information is available for the over/interburden (model) layers". In fact, hydraulic conductivity data are available for the backfill from former monitor wells in the Pit 1 and Pit 2 area and for the Plachek Pit backfill. That data are provided in the GRD referenced under Objection No. 1 above. Hydraulic conductivity values assigned to the spoils together with all other "overburden" strata in the model are very small (less than one tenth) relative to those shown for backfill in the GRD. The groundwater model ignores determination of the spatial extent of drawdown in the water table of Pit 1 and Pit 2 backfill that is connected to the water table in Tongue River and Goose Creek alluvium, which in turn is supplied by flows in both streams. The text of Section MP.6.2.3 states "Drawdowns of the overburden were not modeled and only isolated sands where encountered are expected to be affected".

Section 4.9 and Figure 4.9-11 of Addendum MP-3 shows where the groundwater model was used to predict water table drawdown in Tongue River valley alluvium at "alluvial target" points distributed over nearly a six-mile reach of the valley floor. Section 4.9 states that "the maximum impact to the Tongue River alluvium is conservatively estimated to reach 2.5 feet of drawdown near the river". Addendum MP-3 and Section MP.6.2 provide no description or drawing of the spatial distribution of drawdown during mining in BHCC's saturated backfill or in the alluvium of Tongue River and Goose Creek that is hydraulically connected to the backfill. Neither does the groundwater model explore potential permanent groundwater elevation changes associated with the highwall mining panels acting as drains to the backfill and alluvial water table via the highwall trench pits. Water table drawdown approaching 2.5 feet in the alluvium of Tongue River valley over a valley distance of nearly six miles would in fact represent a very large volume water loss that would likely cause stream flow losses.

The groundwater model of Addendum MP-3 fails to report groundwater inflow rates to any of the proposed mine excavations. Section MP.8 of the Mine Plan states "It is estimated that the total water use will be approximately 400 million gallons per year." This is equivalent to an average daily use rate of 760 gallons per minute, about 3.36 acre-feet per day, or about 1,226 acre-feet per year. The Mine Plan does not identify the specific source(s) of the water beyond mentioning that "Industrial water will be obtained from groundwater wells or from water collected in sediment and flood control reservoirs". The groundwater model of Addendum MP-3 does not include the effects of withdrawing any groundwater from wells for industrial or other uses, nor does it include the effects of dewatering wells mentioned in Section MP.5.9. In short, the Mine Plan is devoid of a hydrologic budget identifying specific groundwater sources, the quantity of industrial

water projected to be available from flood control reservoirs and sediment ponds, and the determination of what would remain of groundwater and surface water supplies while supplying the industrial water needs. BHCC is concerned that the value of its surface estate and future options for developing its surface estate could be marginalized by such a large water use demand, especially considering that water demands at Wyoming coal mines are primarily consumptive.

#### Objection No. 4 - Section MP.11; Addendum MP-5

The fire control plan referenced in Section MP.11 and presented in Addendum MP-5 describes measures to be taken to prevent and control fires in the mine pits, fires in the mine's processing and shop facilities, equipment fires and rangeland fires. BHCC objects, however to the Mine Plan and Addendum MP-5 not providing plans to control and extinguish new subsurface coal fires that may develop or existing subsurface coal fires that may become rekindled or enlarged as a result of the highwall mining panels that will be opened outboard of the highwall trench openings.

Attachment 1 provided with this Objection No. 4 is a drawing showing the approximate extent of underground coal mine fires in the area of proposed highwall mining in Sections 10 and 15, T57N, R84W, as reported by the U.S. Geological Survey in 1980. The fires in this particular area originated with mining of the Monarch coal. This and other nearby historic underground mines have long been known to exhibit numerous subsidence features and underground coal mine fires, and in the late 1980s BHCC received approval from the WDEQ/LQD to permanently place nearly 10 million bank cubic yards of overburden over the area shown on Attachment 1 in an attempt to reclaim the subsidence and control the fire. That unique reclamation feature is known as the Pit 3 Subsidence Dump in Big Horn Mine's reclamation history. The proposed highwall mining will develop mine openings in the Carney and Masters coal seams beneath the Monarch seam in areas that are known to still exhibit evidence of underground coal fires. Plumes of steam and smoke have been observed again over the general area of Sections 10 and 15 this winter of 2016-2017. These observations indicate that, in places, the perimeter of the historic subsurface coal seam fires has expanded notable distances from the referenced 1980 boundary delineation.

The subsidence control plan of Addendum MP-6 does little to guarantee the long-term protection of BHCC's surface estate especially where highwall mining panels will be driven beneath underground coal mine fires having a long history of activity. Section MP-6.2 of Addendum MP-6 provides numerical calculations for subsidence chimney heights, but there is no investigation of the potential that the historic mine fires may have compromised the structural integrity of strata underlying the fires and overlying the coals targeted for highwall panel mining (the interburden), leaving the interburden more prone to subside than normal. BHCC is particularly concerned and objects to highwall mining beneath or adjacent to pre-existing underground mine fires because of the potential for oxygen and water to be transmitted from the highwall mining openings to "hotspots" in the seams already burning via highwall trenches or via fractured or subsided interburden above the panel openings. BHCC strongly disagrees with the legitimacy of the plan stated in Section MP-6.4 of Addendum MP-6 which states "Backfilling will also be performed if it is determined that the introduction of water and oxygen could contribute to spontaneous ignition of the remaining coal not extracted from the highwall mining operations". BHCC

contends it to be common knowledge in the mining industry that oxygen and water are key catalysts in causing spontaneous combustion in coal, whether the coal be in mine openings or in stockpiles. BHCC also believes that the introduction of additional water and air to a coal seam already on fire is especially problematic.

Section MP-6.3 of Addendum MP-6 commits to maintaining highwall mining mapping and subsidence documentation in a subsidence report that will be available for inspection. BHCC objects to the Mine Plan not committing to freely submitting the highwall mining mapping and subsidence documentation report to all owners of surface estate within the Brook Mine permit area. BHCC also objects to the fact that the Subsidence Monitoring and Assessment reporting of Section MP-6.3 does not include mapping, photographing and describing all evidence of surface or underground coal fires occurring within the Brook Mine permit area whenever such evidence becomes available throughout the life of the mining and post-mining periods.

#### Objection No. 5 - Section MP.1.3; Exhibit MP.1-1

The mine plan on Page MP-5, identifies the "disturbance boundary includes all lands that will be physically and directly disturbed during mining." Exhibit MP.1-1 shows the disturbance boundary as a dashed orange symbol that outlines an entire pink hatched polygon, identified as "DISTURBANCE FOR YEAR 2016," located in Sections 15, 21, 22 and 27 of Township 57 North, Range 84 West.

Within the pink hatched polygon, there are existing assets to Big Horn Coal Company. These assets include a rail spur, water tank, pump house, access roads, fences and land owned by BHCC. Also within the pink hatch polygon is the mainline of the Burlington Northern Railroad and associated lands owned by Burlington Northern.

Based on the definition of Disturbance Boundary as indicated on page MP-5, does Brook Mine indeed have the rights to physically and directly disturb these lands within the pink hatched polygon? From the public record, BHCC has not been able to determine whether Brook Mine has secured surface owner consent from all surface owners, including the railroad, for these activities

#### Objection No. 6 - Section MP.1.5

The mine plan states on Pages MP-5 and continue onto page MP-6 that "Coal will either be temporarily stored in the pit or directly hauled off site."

There is no mention in the permit as to where the coal will be hauled off site. Additionally there is no known agreement with the County of Sheridan, indicating approval to haul mineral across county roads.

#### Objection No. 7 - Section MP.1.9

The mine plan states on Pages MP-7 that "The Brook Mine will operate in conjunction with Taylor Quarry (Permit No. SP-757)... The Mine will work with Taylor Quarry to minimize impacts on Taylor Quarry's operation."

The following paragraph states "The Brook Mine will not obstruct Big Horn Coal's (Permit 231-T8) Shop, Bridge, and Rail Road Siding as they exist in Big Horn Coal's 2015 Annual Report. An access road equivalent to the existing improved road will be provided if proposed stockpiles or pits should restrict the existing access as shown on Exhibit MP.1-1.

To remain consistent with the statements made in regards to the Taylor Quarry, Big Horn Coal requests that the paragraph referencing Big Horn to be replaced and restated as follows:

"The Brook Mine will operate in conjunction with the Big Horn Mine and that the Brook Mine will work with Big Horn Coal to minimize impacts to Big Horn Coal operations. Specifically, Brook Mine will not obstruct Big Horn Coal's (Permit 213-T8) Shop, Bridge, and Rail Road Siding as they exist in Big Horn Coal's 2015 Annual Report. An access road equivalent to the existing improved road will be provided if proposed stockpiles or pits should restrict the existing access as shown on Exhibit MP.1-1."

Big Horn Coal requests that the text be updated in the previous paragraph to reference the correct permit number for Big Horn Coal Company as (Permit 213-T8).

#### Objection No. 8 - Section MP.3.1, Section MP.3.1.3 - Roads; Exhibit MP.3-1

As stated in the mine plan on Page MP-11, "Primary roads are any road used for transporting mineral or spoil, or frequently used for access or other purposes for a period in excess of six months, or roads to be retained for postmining use."

WDQ/LQD Rules and Regulations (R&R) Chapter 4, Section 2(j)(vii):

Primary roads.

(A) Certification. The construction or reconstruction of primary roads shall be certified in a report to the Administrator by a registered professional engineer. The report shall indicate that the primary road has been constructed or reconstructed as designed and in accordance with the approved plan. The report shall be available for review at the mine site within 30 days following the completion of construction of each primary road.

Mine plan Exhibit MP.3-1, titled Transportation Network identifies proposed primary haulroads as a solid black line, for the use of transporting mineral or spoil. Yet, there are no haulroads identified in the SE quarter of Section 15, Sections 21, 22 or 27. If the Brook Mine plans to haul mineral or spoil materials from the proposed Trench Cut (TR-1), there should there be indication of a primary haul road leaving TR-1, accompanied by a certification of the road design. Unless there are no plans of transporting mineral or spoil from the TR-1 area.

#### Objection No. 9 - Section MP.4.2.3 - Stockpiles; Exhibit MP.4-3

The mine plan states on Page MP-16, "Stockpiles will not be constructed on unsuitable backfill."

Mine plan Exhibit MP.4-3, Stockpile Locations identifies Topsoil Stockpile TS-1B proposed location within an area known as the Placheck Pit. This area was mined by Big Horn Coal from 1956 through 1963. It is Big Horn Coal's understanding that the proposed area beneath TS-1B is indeed unsuitable material and that topsoil should not be placed in the area as proposed on Exhibit MP.4-3. Additionally, Big Horn Coal is not aware of a surface owner consent document between Brook Mining Company and the Burlington Northern Railroad that would allow the crossing of the mainline with loaded haul trucks.

#### Objection No. 10 - Section MP.6.1; Exhibit MP.7-1

Exhibit MP.7-1 represents the operational Surface Water and Groundwater Monitoring Program. There are only two downstream surface water monitoring sites, identified as Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir. The text on page MP-41 of the Mine Plan states "However, the Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir will be disturbed by facilities disturbance."

Big Horn Coal believes there is inadequate downstream monitoring in the proposed plan. Upon disturbing of Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir, there will be no sites downstream of the Brook Mine to collect adequate surface and groundwater data to prove that there are no off site environmental impacts from the proposed operation.

#### Objection No. 11 - Addendum MP-2, Exhibit MP-2

The proposed Sediment Pond SP-8 is located within the current postmine approved Reservoir 14 constructed by BHCC. The bottom elevation of Reservoir 14 is currently at 3575 with a peak elevation at 3589. Sediment Pond SP-8 bottom elevation is proposed at 3585 with a high water elevation proposed at 3590. It is noted below the area capacity table on Exhibit 13, "1. Pond is entirely incised. No Spillway hydraulics are provided."

These elevations lead BHCC to believe the plan for construction of SP-8 will require Reservoir 14 to be completely backfilled prior to construction of SP-8. BHCC requests that the reconstruction and the water quality within Reservoir 14 be restored to pre-mining conditions before final bond release is allowed.

#### Objection No. 12 - Exhibit MP.4-1; Exhibit MP.4-2; Exhibit MP.4-5; Exhibit RP.5-1

The proposed mine plan indicates that topsoil and overburden removal will occur upon the BHCC Property and within the TR-1 area in years 1 and 2 of operation. Exhibit MP.4-1 shows coal removal to occur over the same first two years of operation. Exhibit MP.4-5 shows the overburden backfill sequence within TR-1 will occur in year 2. Exhibit RP.5-1 shows the topsoil replacement sequence within the BHCC Property occurring in years 12-16.

BHCC objects to this timeline of topsoil replacement upon its property. The BHCC property is the first to be disturbed and the last to be reclaimed. BHCC asks the question as to why every other proposed disturbance area is backfilled and topsoiled within a 2 to 3 year time frame except around the BHCC facilities area. The topsoil replacement timeframe is unacceptable and not contemporaneous in accordance with the Surface Mining Control and Reclamation Act. (SMCRA) and it is requested that the final

reclamation around the BHCC Property be within the 2 to 3 year time frame, similar to all other areas around the mine.

#### Objection No. 13 - Section MP.1.2.1; Figure MP.1-2.

Section MP.1.2.1 discusses the work that will be done to "prepare for highwall mining" and describes how the "trenches" will be constructed to "create working areas for highwall mining equipment". This section of the mine plan states that "The highwalls will have a 65-degree bench slope to provide a stable trench environment. Where the trench intersects the burnt Monarch coal seam, a 35-foot wide safety bench will be added. Where the Carney and Masters coal seams come close to convergence, a vertical wall will be used to maintain the desired pit width." Earlier, under Objection No. 2, BHCC discussed the presence of saturated backfill where trench TR-1 is planned to be excavated. Section MP.1.2.1 does not address in any fashion the fact that trench TR-1 will be constructed in an area containing a significant amount of saturated backfill material. In our opinion, utilizing a 65-degree bench slope in this material will be impossible as the saturated backfill will not safely at this angle. Furthermore, no geotechnical information (sampling, testing or analysis) supporting slope stability assumptions for the surface mining or highwall mining operations have been provided in the mine plan. BHCC finds the information regarding highwall bench slope angles presented in MP.1.2.1 to be inadequate given the variability of non-coal material that will be encountered during excavation of trenches in support of the highwall mining operation.

#### Objection No. 13 – Section MP.1.2.1; Figure MP.1-2.

Section MP.1.2.1 discusses the work that will be done to "prepare for highwall mining" and describes how the "trenches" will be constructed to "create working areas for highwall mining equipment". This section of the mine plan states that "The highwalls will have a 65-degree bench slope to provide a stable trench environment. Where the trench intersects the burnt Monarch coal seam, a 35-foot wide safety bench will be added. Where the Carney and Masters coal seams come close to convergence, a vertical wall will be used to maintain the desired pit width." Earlier, under Objection No. 2, BHCC discussed the presence of saturated backfill where trench TR-1 is planned to be excavated. Section MP.1.2.1 does not address in any fashion the fact that trench TR-1 will be constructed in an area containing a significant amount of saturated backfill material. In our opinion. utilizing a 65-degree bench slope in this material will be impossible as the saturated backfill will not safely stand at this angle. Furthermore, no geotechnical information (sampling, testing or analysis) supporting slope stability assumptions for the surface mining or highwall mining operations have been provided in the mine plan. BHCC finds the information regarding highwall bench slope angles presented in MP.1.2.1 to be inadequate given the variability of non-coal material that will be encountered during excavation of trenches in support of the highwall mining operation.

#### Objection No. 14 - Section MP.4.4.1

It is a well-known fact within the mining industry that the term "Reserves" connotes that the mineral being extracted can be done so economically. BHCC opines that the mining approach presented in the mine plan cannot be done economically. Based on our internal

knowledge; the operating cost for a contractor to perform highwall mining is in the \$8/Ton to \$12/Ton range, which is very close to the domestic spot price for this type of coal. By the time the other costs for the surface mining to develop the highwall mining, transportation, G&A, etc. are taken into consideration, this operation appears to be completely uneconomical.

The market for this coal is unclear. The two closest coal mines, Decker and Spring Creek, serve the domestic and international market. Port capacity to the international market is constrained and it is unlikely that Brook Mine will secure access. Domestic demand has been in decline and is significantly oversupplied. Without a definitive market, the Brook Mine is at risk of commencing operations, producing product it cannot sell economically, and reclamation obligations that it cannot fund.

#### Objection No. 15 - Section MP.15

Objection No. 4 above introduces the fact that the underground mine fires in this area are still burning and have expanded. Section MP.15 does not, in any way, address that the burned areas have expanded. A surface mine excavation that comes in contact with a historic mine fire could be catastrophic in many ways, including: impacting the safety of mine workers, damage to equipment, wildfire initiation, etc. BHCC believes this mine plan has not adequately addressed surface mining activities that will occur near underground mines and insists that the Brook Mine operators must perform the necessary testing and analysis to prove that the proposed mine plan will not be impacted by historic mine fires. Specifically, attachment 1 provided with Objection No. 3 above shows that trench TR-2 is planned very near an area that was burning and is likely still burning. Given that the burned area has likely expanded, this area should not be disturbed at all.

In conclusion, Big Horn Coal Company feels strongly that the Brook Mine permit application should not be approved or deemed technically complete. The mine and reclamation plan lack a significant amount of detail that is required for a technical completeness determination, as stated in the above mentioned objections.

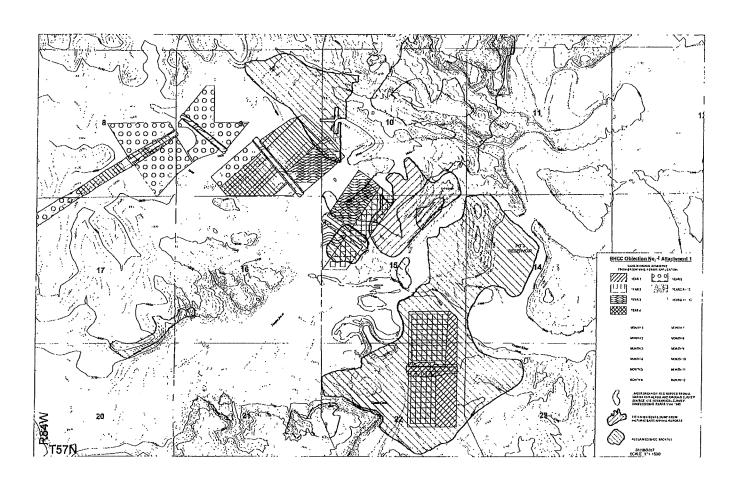
Sincerely

Jordán Sweeney

General Manager

Big Horn Coal Company

Attachment: BHCC Objection No.4 Attachment 1



# EXHIBIT G

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Clayton H. Gregersen (WSB# 7-5677)
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ATTORNEYS FOR OBJECTORS
BIG HORN COAL COMPANY

### BEFORE THE ENVIRONMENTAL QUALITY COUNCIL STATE OF WYOMING

IN RE BROOK MINE APPLICATION	)
	) Docket No
	)
TFN 6 2-025	)

### OBJECTOR BIG HORN COAL COMPANY'S PETITION FOR A HEARING BEFORE THE ENVIRONMENTAL QUALITY COUNCIL

Big Horn Coal Company ("Big Horn"), by and through it undersigned counsel, Crowley Fleck PLLP, hereby submits this Petition for Hearing before the Environmental Quality Council (the "Council").

This matter arises from the coal mining permit application of Brook Mining Company, LLC ("Brook Mine") and the numerous objections related thereto. First and foremost, Big Horn asserts that it requested and has renewed its request for an informal conference in this matter, and that DEQ should reconsider Big Horn's and

the other objectors' requests for an informal conference.<sup>1</sup> In the event that DEQ confirms its decision to deny the requests for an informal conference, Big Horn now requests a contested case hearing before the Council regarding Brook Mine's permit application and Big Horn's objections thereto pursuant to Wyo. Stat. Ann. § 35-11-112(a)(iv),(c)(ii); -406(k),(p).

#### **Facts**

- 1. Big Horn Coal Company is a Wyoming corporation, active and in good standing, with its principal office located at 110980 South Jordan Gateway, South Jordan, Utah. Big Horn is wholly owned by LHR Coal, LLC and LHR Coal, LLC is wholly owned by Lighthouse Resources, Inc.
- 2. Brook Mining Company, LLC is a Wyoming limited liability company with its principal office located at 1101 Sugarview Drive, Ste. 201, Sheridan, WY.
- 3. Brook Mine has submitted an application for a coal mining permit from the Land Quality Division of the Department of Environmental Quality for the State of Wyoming, DEQ File No. TFN 6 2-025 (the "permit application").

<sup>&</sup>lt;sup>1</sup> Big Horn asserts that numerous requests for an informal conference were made during the period for filing objections to Brook Mine's permit application pursuant to Wyo. Stat. Ann. § 35-11-406(k). In furtherance of its initial request and given the current, unique procedural posture of this matter, Big Horn has also formally renewed its request for an administrative, informal conference, attached hereto as **Exhibit A**. This request for a contested case hearing before the Council is contingent on a confirmed denial of an opportunity for informal conference and to ensure that the objections of Big Horn are properly presented and considered.

- 4. According to the public notice, the coal mining permit area will be located in: Sections 10, 11, 12, 13, 14 and 15 of Township 57N, Range 85W and Sections 7, 8, 9, 10, 15, 17, 18, 20, 21, 22, and 27 of Township 57N, Range 84W Sheridan County, Wyoming (the "permit area").
- 5. Big Horn is the owner of real property interests in the permit area that will be negatively affected by proposed mining operations.
- 6. Big Horn has existing rights and reclamation obligations pursuant to its existing Mine Permit No. 213-T8, which lies within the boundaries of Brook Mine's proposed mine permit area.
- 7. Pursuant to the Public Notice of Brook Mining Co., LLC Permit Application, written objections to the proposed mining operation were to be received by the Administrator of the Land Quality Division, Department of Environmental Quality before the close of business on January 27, 2017. See EQC Docket No. 17-4801.
- 8. Big Horn, along with several other parties, timely filed written objections to the proposed mining operation citing numerous concerns, including but not limited to, highly technical issues regarding the accuracy and completeness of Brook Mine's mine and reclamation plans due to a lack of testing, data, and analysis to support present conclusions on hydrologic impacts, material strength, sloughing, and dangers related to existing subsurface fire activity and subsidence. The objections primarily address concerns pertaining to human health, safety and

the likely environmental impacts of the proposed mining operation. See EQC Docket No. 17-4801.

#### Request for Hearing

Big Horn now requests that the Environmental Quality Council schedule and hold a contested case hearing in this matter, in accordance with the Wyoming Administrative Procedure Act, whereby the Council will make findings of fact and issue a determination on the permit application.

#### Issues to be Determined at the Hearing

- 1. Whether Brook Mine has satisfied its obligations to ensure that the permit application is in compliance with Wyoming's Environmental Quality Act and all applicable state laws, and that Brook Mine has demonstrated that is has or can meet all requirements set forth in Wyo. Stat. Ann. § 35-11-406(n).
- 2. Whether Brook Mine has met and satisfied all conditions and requirements for submission and approval of its permit application, mining plan and reclamation plan found in the Environmental Quality Act and the Rules and Regulations of the Wyoming Department of Environmental Quality, including but not limited to those from Wyo. Admin. Code ENV LQD Ch. 2 and Ch. 12.

WHEREFORE, Big Horn hereby requests that the Environmental Quality Council schedule and hold a contested case hearing in this matter whereby:

1. The Council shall issue findings of fact and a decision on the permit application within sixty (60) days after the final hearing. Wyo. Stat. Ann. § 35-11-406(p).

- 2. The Director of the Department of Environmental Quality shall issue or deny the permit within fifteen (15) days of the Council's findings and decision. *Id.*
- 3. The parties shall be afforded right of judicial review from any action resulting from this hearing as provided in the Wyoming Administrative Procedure Act. *Id.* at -406(k).

DATED: February 15, 2017.

Lynnette Boomgaarden (W8B # 5-2837)

Clayton H. Gregersen (WSB # 7-5677)

Crowley Fleck PLLP

237 Storey Boulevard, Suite 110

Cheyenne, WY 82009

(307) 426-4100

Attorneys for Objectors Big Horn Coal Company

#### **CERTIFICATE OF SERVICE**

I hereby certify that on February 15, 2017, a true and correct copy of the foregoing was served by certified mail, return receipt requested, to the following:

David Bagley Chairman, EQC 122 W. 25th Herschler Bldg. 1W, Room 1714 Cheyenne, WY 82002

Todd Parfitt, Director Wyoming Department of Environmental Quality 200 W. 17<sup>th</sup> Street Cheyenne, WY 82002 Thomas L. Sansonetti Isaac N. Sutphin Jeffrey Pope 2515 Warren Ave., Suite 450 P.O. Box 1347 Cheyenne, WY 82003-1347 Attorneys for Brook Mining Co., LLC

I hereby certify that on February 15, 2017, a true and correct copy of the foregoing was served by email to the following:

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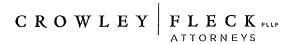
Alan Edwards
Deputy Director, DEQ
Alan.edwards@wyo.gov

Ganette Bromenarden

## **EXHIBIT A**

Lynnette Boomgaarden

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February 15, 2017

VIA: Kyle.Wendtland@wyo.gov Todd.Parfitt@wyo.gov

Kyle Wendtland, Administrator Land Quality Division Wyoming Department of Environmental Quality 200 W. 17<sup>th</sup> Street, Suite 10 Cheyenne, WY 82002

Todd Parfitt, Director Wyoming Department of Environmental Quality 200 W. 17<sup>th</sup> Street Cheyenne, WY 82002

> RE: Renewed Request for an Informal Conference regarding Big Horn Coal Company's Written Objections to Brook Mining Co., LLC's Coal Mining Permit Application, DEQ File No. TFN 6 2-025

Dear Mr. Wendtland and Mr. Parfitt,

On behalf of Big Horn Coal Company ("Big Horn"), and for the reasons stated in Objector Big Horn Coal Company's Brief Addressing Whether the Environmental Quality Council Presently has Jurisdiction over this Matter, I am renewing Big Horn's previous request for an administrative informal conference pursuant to Wyo. Stat. Ann. § 35-11-406(k) and Wyo. Admin. Code ENV PP Ch. 3 § 3.

The requested conference shall be for the purpose of considering Big Horn's written objections to Brook Mining Company's surface coal mining permit application, DEQ File No. TFN 6 2-025, filed with Mr. Wendtland on January 25, 2017. In accordance with the Rules and Regulations, the primary issues to be addressed at this conference shall include: (1) whether Brook Mine has or can meet its burden of satisfying all requirements for permit approval

BILLINGS BISMARCK BOZEMAN BUTTE CASPER CHEYENNE HELENA KALISPELL MISSOULA SHERIDAN WILLISTON

CROWLEYFLECK.COM

Request for Informal Conference February 15, 2017 Page 2

pursuant to Wyo. Stat. Ann. § 35-11-406(n) and the related Rules and Regulations; and (2) the merits of Big Horn's technical objections to Brook Mine's permit application, which primarily relate, but are not limited, to hydrologic data and impacts, material testing and data, sloughing, existing subsurface fire activity and related controls, and subsidence. Big Horn staunchly believes these issues can be best addressed, and possibly resolved or narrowed, in the context of an open, candid, informal conference with Big Horn representatives, Brook Mine and its consultants, and the DEQ technicians who reviewed and will take action on Brook Mine's mine and reclamation plans and any accompanying data. Pursuant to Wyo. Admin. Code ENV PP Ch. 3 § 1, Big Horn requests that a record of the conference be made.

Big Horn does not request that the conference be held in the locality of the proposed mining operation and does not request access to the proposed permit area. However, if another interested party requests these accommodations, Big Horn has no objection thereto.

Big Horn requests that the informal conference be held as soon as practicable.

Sincerely,

CROWLEY FLECK PLLP

LYNNE BOOMGAARDEN

<sup>&</sup>lt;sup>1</sup> A copy of Big Horn's objections to the Brook Mine permit application filed in this matter is attached hereto as **Exhibit A.** 

# **EXHIBIT A**



### BIG HORN COAL COMPANY 10980 SOUTH JORDAN GATEWAY SOUTH JORDAN, UT 84095

January 25, 2017

Wyoming Department of Environmental Quality Land Quality Division 200 W. 17<sup>th</sup> Street Cheyenne, WY 82002

ATTN: Mr. Alan Edwards, Assistant Administrator

RE: Objections to Proposed Brook Mine Permit Application, Sheridan County, Wvoming

Dear Mr. Wendtland.

Big Horn Coal Company (BHCC) writes to provide objections to the Brook Mine permit application.

During the course of our review, we discovered that the information was inconsistent among the locations noted in the public notice. We advised Brook Mine's legal counsel of the inconsistency on December 20, 2016. We are not aware if the information was updated to correct the inconsistency between the locations.

Our objections are based upon what BHCC believes to be the most accurate, up-to-date information and relate primarily to the permit application's lack of adequately addressing hydrologic issues that could significantly affect existing and future water rights, the quantity and quality of surface water and groundwater within and adjacent to BHCC, the potential for coal seam fires to erupt in both the open pit and subsurface openings and the potential for miner safety and environmental harm proposed in the permit Mine Plan. The objections are referenced to text section headings, exhibits and addenda of the permit application Mine and Reclamation Plan.

#### Objection No. 1 - Mine Plan & Rec Plan Review

Big Horn Coal has reviewed the proposed mine and reclamation plan and is concerned with the general lack of detail contained in the proposed plan. It appears that no sampling, testing or analytical work of any sort has been performed to support the surface and highwall mine designs and plans. It is Big Horn Coal's opinion that excavating in the area, surrounding the Big Horn Mine will create a large safety concern and environmental

liability as the TR-1 trench cut could become inundated with water from the historic backfill of the BHCC spoils of Pit 1 and Pit 2.

BHCC would like to put on record that it is providing written notice of its concerns so Brook Mine and other affected parties have notice and are aware of these issues and that Big Horn Coal is not responsible for any personal, property or environmental damage or other loss due to the disturbance activities associated with the Brook Mine, its affiliated companies or successors in interest.

BHCC has not consented to overlapping permit boundaries nor has it been indemnified of any disturbance related to Brook Mine's proposed activities as it relates to the reclamation obligations and BHCC's reclamation liabilities.

### Objection No. 2 - Section MP.4; Exhibit MP.4-1; Section MP.5; Section MP.13; Addendum MP-6

Section MP.4 and Exhibit MP.4-1 provide plans for the development of a highwall mining trench through and the development of highwall mining panels beneath reclaimed backfill of BHCC Pits 1 and 2 adjacent to Goose Creek and the Tongue River in the southeastern portion of the Brook Mine permit area. The trench would penetrate through the bottom of the backfill allowing mining of Carney coal found about 70 feet beneath the backfill. The backfill of the proposed trench area averages about 90 feet thick. The northeast corner of the highwall panel area appears on Exhibit MP.4-1 to be equivalent to the Brook Mine permit boundary, and would be less than 100 feet from the bank of the Tongue River. On Figure MP-6.1-1 of Addendum MP-6, the highwall mining panels are shown even closer to the Tongue River channel, and the reason for the disparity between the figure and Exhibit MP.4-1 is unexplained. BHCC is very concerned over and objects to the permit's disturbance, affected and permit boundaries all being equivalent to the mining panel boundary in this most environmentally sensitive area adjacent to the bank of the Tongue River. The affected area boundary shown on Exhibit MP.4-1 around the other proposed mining panels typically extends well beyond the disturbance boundary for reasons unexplained in the Mine Plan.

Mine Plan Section MP.4, together with all Mine Plan text inclusive of Section MP.13 and Addendum MP-6, are silent on the subject of the special textural and hydrologic characteristics of the proposed southeastern highwall mining area in Sections 15 and 22, T57N, R84W. The area is unique in that the strata overlying the coal to be mined includes a thick layer of unconsolidated, saturated backfill exhibiting shallow groundwater elevations of 20 feet or less below ground surface where existing ground elevations are 3600 feet and lower. The water surface in BHCC's postmining Reservoir 14 in the SESE Sec. 15 is an expression of the groundwater table. The groundwater throughout Pits 1 and 2 is directly connected to and recharged by Goose Creek and the Tongue River, as documented in the Big Horn Mine's Reclamation History, Groundwater Restoration Demonstration (GRD) approved by the WDEQ/LQD as Change No. 9 to Permit 213-T5 in August 2002. The GRD verifies that the Pits 1 and 2 backfill resaturated very rapidly, indicative of unconsolidated, porous material connected to perennial stream recharge sources nearby. Mine Plan Section MP.4 is silent on the subject of managing massive sloughing that may occur in the saturated and nonsaturated backfill of the southeastern highwall mining area as the highwall mining trenches are excavated through the backfill to the base of Carney coal. Section MP-5 of the Mine Plan also fails to present an

alternative water management and treatment plan to be followed should groundwater inflow volumes exceed infrastructure design capacities.

BHCC finds the assessment of potential land subsidence and the remediation plan presented for land subsidence in Addendum MP-6 to be inadequate relative to protecting the value and function of its lands, particularly for protecting the stability of the Tongue River and the quality of shallow groundwater connected to the river. Addendum MP-6 does not absolutely discount the possibility of land subsidence above the highwall miner holes, nor does it provide a plan for the discontinuation of any southeastern area highwall mining should subsidence occur in the lowlands contiguous to Tongue River or Goose Creek. The environmental implications of subsidence developing adjacent to Tongue River and Goose Creek are so severe as to warrant, at a minimum, a permit commitment to temporarily or permanently cease all mining throughout all of the southeastern highway mining area should any subsidence develop in any of the area at any time. The permit's plan for "backfilling will commence within 12 months of a subsidence location being identified if self-healing is not providing sufficient remediation" (Section MP-6.4, Addendum MP-6) is environmentally unacceptable for the southeastern highwall mining area because: 1) the stability and alignment of Goose Creek and Tongue River could be jeopardized should subsidence occur, and; 2) any groundwater quality impacts associated with underground coal fires developing in mine openings would have direct and essentially immediate access to Goose Creek and Tongue River via the shallow groundwater table.

The subsidence control plan presented in Addendum MP-6 is inadequate. It appears that no analytical work of any sort (sampling, material testing, etc.) has been performed in support of the highwall mining design presented in the mine plan. Additionally, it also appears that no geotechnical work of any sort has been performed. Addendum MP-6 discusses general assumptions for highwall mining penetration depths, entry widths, cutting heights and support pillars. This information is presented somewhat anecdotally and in the case of the support pillars, it states that "Support pillars will be designed to have a width equal to or exceeding the maximum extraction thickness anticipated in a highwall mining hole based on the mine's geologic model. This width-to-height ratio of at least 1:1 results in pillar stability factors that exceed recommended values suggested by National Institute for Occupational Safety and Health's (NIOSH) ARMPS-HWM stability program for the overburden thicknesses expected. Pillar dimension will also be in accordance with Brook Mine's Ground Control Plan approved by MSHA."

No material strength data (coal strength, overburden strength, interburden strength, etc.) is provided in the mine plan document. BHCC suspects that no material strength information has been gathered or determined. Can the NIOSH stability factors actually be achieved? This is unknown at this point as no definitive geotechnical and material strength data has been presented in the mine plan. The coals present in this area are of a younger age. Younger age coals have much weaker strengths than older age, deeper coals and it is quite possible that the safety and stability factors needed to safely and effectively execute the highwall mining approach presented in the mine plan cannot be achieved. BHCC insists that further analysis be performed to definitively prove that the web and barrier pillars dimensions are appropriate and that they will meet NIOSH's minimum stability factor of 1.3.

Very little highwall mining has been performed in Wyoming. Highwall mining has been performed relatively recently at the Bridger Mine, which is located in Southwest Wyoming.

While the exact details are unknown, BHCC is aware of at least one "cascading pillar failure" at that operation and fortunately, there were no injuries. It is suspected that this failure was caused by improper pillar layout and design. BHCC is concerned that the anecdotal mine design presented in this document is inadequate and must be performed with proper analytical data.

#### Objection No. 3 - Section MP.5.9; Section MP.6.2; Addendum MP-3; Section MP.8

The groundwater model of Addendum MP-3 was improperly constructed and executed because the model does not recognize the unique textural and hydraulic characteristics of saturated backfill in BHCC's Pits 1 and 2, but instead simulates the backfill in the same fashion as native overburden strata (see Section 4.0 of Addendum MP-3). Section 2.5.1 of Addendum MP-3 states "no site-specific hydraulic conductivity information is available for the over/interburden (model) layers". In fact, hydraulic conductivity data are available for the backfill from former monitor wells in the Pit 1 and Pit 2 area and for the Plachek Pit backfill. That data are provided in the GRD referenced under Objection No. 1 above. Hydraulic conductivity values assigned to the spoils together with all other "overburden" strata in the model are very small (less than one tenth) relative to those shown for backfill in the GRD. The groundwater model ignores determination of the spatial extent of drawdown in the water table of Pit 1 and Pit 2 backfill that is connected to the water table in Tongue River and Goose Creek alluvium, which in turn is supplied by flows in both streams. The text of Section MP.6.2.3 states "Drawdowns of the overburden were not modeled and only isolated sands where encountered are expected to be affected".

Section 4.9 and Figure 4.9-11 of Addendum MP-3 shows where the groundwater model was used to predict water table drawdown in Tongue River valley alluvium at "alluvial target" points distributed over nearly a six-mile reach of the valley floor. Section 4.9 states that "the maximum impact to the Tongue River alluvium is conservatively estimated to reach 2.5 feet of drawdown near the river". Addendum MP-3 and Section MP.6.2 provide no description or drawing of the spatial distribution of drawdown during mining in BHCC's saturated backfill or in the alluvium of Tongue River and Goose Creek that is hydraulically connected to the backfill. Neither does the groundwater model explore potential permanent groundwater elevation changes associated with the highwall mining panels acting as drains to the backfill and alluvial water table via the highwall trench pits. Water table drawdown approaching 2.5 feet in the alluvium of Tongue River valley over a valley distance of nearly six miles would in fact represent a very large volume water loss that would likely cause stream flow losses.

The groundwater model of Addendum MP-3 fails to report groundwater inflow rates to any of the proposed mine excavations. Section MP.8 of the Mine Plan states "It is estimated that the total water use will be approximately 400 million gallons per year." This is equivalent to an average daily use rate of 760 gallons per minute, about 3.36 acre-feet per day, or about 1,226 acre-feet per year. The Mine Plan does not identify the specific source(s) of the water beyond mentioning that "Industrial water will be obtained from groundwater wells or from water collected in sediment and flood control reservoirs". The groundwater model of Addendum MP-3 does not include the effects of withdrawing any groundwater from wells for industrial or other uses, nor does it include the effects of dewatering wells mentioned in Section MP.5.9. In short, the Mine Plan is devoid of a hydrologic budget identifying specific groundwater sources, the quantity of industrial

water projected to be available from flood control reservoirs and sediment ponds, and the determination of what would remain of groundwater and surface water supplies while supplying the industrial water needs. BHCC is concerned that the value of its surface estate and future options for developing its surface estate could be marginalized by such a large water use demand, especially considering that water demands at Wyoming coal mines are primarily consumptive.

#### Objection No. 4 - Section MP.11; Addendum MP-5

The fire control plan referenced in Section MP.11 and presented in Addendum MP-5 describes measures to be taken to prevent and control fires in the mine pits, fires in the mine's processing and shop facilities, equipment fires and rangeland fires. BHCC objects, however to the Mine Plan and Addendum MP-5 not providing plans to control and extinguish new subsurface coal fires that may develop or existing subsurface coal fires that may become rekindled or enlarged as a result of the highwall mining panels that will be opened outboard of the highwall trench openings.

Attachment 1 provided with this Objection No. 4 is a drawing showing the approximate extent of underground coal mine fires in the area of proposed highwall mining in Sections 10 and 15, T57N, R84W, as reported by the U.S. Geological Survey in 1980. The fires in this particular area originated with mining of the Monarch coal. This and other nearby historic underground mines have long been known to exhibit numerous subsidence features and underground coal mine fires, and in the late 1980s BHCC received approval from the WDEQ/LQD to permanently place nearly 10 million bank cubic yards of overburden over the area shown on Attachment 1 in an attempt to reclaim the subsidence and control the fire. That unique reclamation feature is known as the Pit 3 Subsidence Dump in Big Horn Mine's reclamation history. The proposed highwall mining will develop mine openings in the Carney and Masters coal seams beneath the Monarch seam in areas that are known to still exhibit evidence of underground coal fires. Plumes of steam and smoke have been observed again over the general area of Sections 10 and 15 this winter of 2016-2017. These observations indicate that, in places, the perimeter of the historic subsurface coal seam fires has expanded notable distances from the referenced 1980 boundary delineation.

The subsidence control plan of Addendum MP-6 does little to guarantee the long-term protection of BHCC's surface estate especially where highwall mining panels will be driven beneath underground coal mine fires having a long history of activity. Section MP-6.2 of Addendum MP-6 provides numerical calculations for subsidence chimney heights, but there is no investigation of the potential that the historic mine fires may have compromised the structural integrity of strata underlying the fires and overlying the coals targeted for highwall panel mining (the interburden), leaving the interburden more prone to subside than normal. BHCC is particularly concerned and objects to highwall mining beneath or adjacent to pre-existing underground mine fires because of the potential for oxygen and water to be transmitted from the highwall mining openings to "hotspots" in the seams already burning via highwall trenches or via fractured or subsided interburden above the panel openings. BHCC strongly disagrees with the legitimacy of the plan stated in Section MP-6.4 of Addendum MP-6 which states "Backfilling will also be performed if it is determined that the introduction of water and oxygen could contribute to spontaneous ignition of the remaining coal not extracted from the highwall mining operations". BHCC

contends it to be common knowledge in the mining industry that oxygen and water are key catalysts in causing spontaneous combustion in coal, whether the coal be in mine openings or in stockpiles. BHCC also believes that the introduction of additional water and air to a coal seam already on fire is especially problematic.

Section MP-6.3 of Addendum MP-6 commits to maintaining highwall mining mapping and subsidence documentation in a subsidence report that will be available for inspection. BHCC objects to the Mine Plan not committing to freely submitting the highwall mining mapping and subsidence documentation report to all owners of surface estate within the Brook Mine permit area. BHCC also objects to the fact that the Subsidence Monitoring and Assessment reporting of Section MP-6.3 does not include mapping, photographing and describing all evidence of surface or underground coal fires occurring within the Brook Mine permit area whenever such evidence becomes available throughout the life of the mining and post-mining periods.

#### Objection No. 5 - Section MP.1.3; Exhibit MP.1-1

The mine plan on Page MP-5, identifies the "disturbance boundary includes all lands that will be physically and directly disturbed during mining." Exhibit MP.1-1 shows the disturbance boundary as a dashed orange symbol that outlines an entire pink hatched polygon, identified as "DISTURBANCE FOR YEAR 2016," located in Sections 15, 21, 22 and 27 of Township 57 North, Range 84 West.

Within the pink hatched polygon, there are existing assets to Big Horn Coal Company. These assets include a rail spur, water tank, pump house, access roads, fences and land owned by BHCC. Also within the pink hatch polygon is the mainline of the Burlington Northern Railroad and associated lands owned by Burlington Northern.

Based on the definition of Disturbance Boundary as indicated on page MP-5, does Brook Mine indeed have the rights to physically and directly disturb these lands within the pink hatched polygon? From the public record, BHCC has not been able to determine whether Brook Mine has secured surface owner consent from all surface owners, including the railroad, for these activities

#### Objection No. 6 - Section MP.1.5

The mine plan states on Pages MP-5 and continue onto page MP-6 that "Coal will either be temporarily stored in the pit or directly hauled off site."

There is no mention in the permit as to where the coal will be hauled off site. Additionally there is no known agreement with the County of Sheridan, indicating approval to haul mineral across county roads.

#### Objection No. 7 - Section MP.1.9

The mine plan states on Pages MP-7 that "The Brook Mine will operate in conjunction with Taylor Quarry (Permit No. SP-757)... The Mine will work with Taylor Quarry to minimize impacts on Taylor Quarry's operation."

The following paragraph states "The Brook Mine will not obstruct Big Horn Coal's (Permit 231-T8) Shop, Bridge, and Rail Road Siding as they exist in Big Horn Coal's 2015 Annual Report. An access road equivalent to the existing improved road will be provided if proposed stockpiles or pits should restrict the existing access as shown on Exhibit MP.1-1

To remain consistent with the statements made in regards to the Taylor Quarry, Big Horn Coal requests that the paragraph referencing Big Horn to be replaced and restated as follows:

"The Brook Mine will operate in conjunction with the Big Horn Mine and that the Brook Mine will work with Big Horn Coal to minimize impacts to Big Horn Coal operations. Specifically, Brook Mine will not obstruct Big Horn Coal's (Permit 213-T8) Shop, Bridge, and Rail Road Siding as they exist in Big Horn Coal's 2015 Annual Report. An access road equivalent to the existing improved road will be provided if proposed stockpiles or pits should restrict the existing access as shown on Exhibit MP.1-1."

Big Horn Coal requests that the text be updated in the previous paragraph to reference the correct permit number for Big Horn Coal Company as (Permit 213-T8).

#### Objection No. 8 - Section MP.3.1, Section MP.3.1.3 - Roads; Exhibit MP.3-1

As stated in the mine plan on Page MP-11, "Primary roads are any road used for transporting mineral or spoil, or frequently used for access or other purposes for a period in excess of six months, or roads to be retained for postmining use."

WDQ/LQD Rules and Regulations (R&R) Chapter 4, Section 2(j)(vii):

Primary roads.

(A) Certification. The construction or reconstruction of primary roads shall be certified in a report to the Administrator by a registered professional engineer. The report shall indicate that the primary road has been constructed or reconstructed as designed and in accordance with the approved plan. The report shall be available for review at the mine site within 30 days following the completion of construction of each primary road.

Mine plan Exhibit MP.3-1, titled Transportation Network identifies proposed primary haulroads as a solid black line, for the use of transporting mineral or spoil. Yet, there are no haulroads identified in the SE quarter of Section 15, Sections 21, 22 or 27. If the Brook Mine plans to haul mineral or spoil materials from the proposed Trench Cut (TR-1), there should there be indication of a primary haul road leaving TR-1, accompanied by a certification of the road design. Unless there are no plans of transporting mineral or spoil from the TR-1 area.

#### Objection No. 9 – Section MP.4.2.3 – Stockpiles; Exhibit MP.4-3

The mine plan states on Page MP-16, "Stockpiles will not be constructed on unsuitable backfill."

Mine plan Exhibit MP.4-3, Stockpile Locations identifies Topsoil Stockpile TS-1B proposed location within an area known as the Placheck Pit. This area was mined by Big Horn Coal from 1956 through 1963. It is Big Horn Coal's understanding that the proposed area beneath TS-1B is indeed unsuitable material and that topsoil should not be placed in the area as proposed on Exhibit MP.4-3. Additionally, Big Horn Coal is not aware of a surface owner consent document between Brook Mining Company and the Burlington Northern Railroad that would allow the crossing of the mainline with loaded haul trucks.

#### Objection No. 10 - Section MP.6.1; Exhibit MP.7-1

Exhibit MP.7-1 represents the operational Surface Water and Groundwater Monitoring Program. There are only two downstream surface water monitoring sites, identified as Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir. The text on page MP-41 of the Mine Plan states "However, the Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir will be disturbed by facilities disturbance."

Big Horn Coal believes there is inadequate downstream monitoring in the proposed plan. Upon disturbing of Big Horn No. 2 Reservoir and Big Horn No. 14 Reservoir, there will be no sites downstream of the Brook Mine to collect adequate surface and groundwater data to prove that there are no off site environmental impacts from the proposed operation.

#### Objection No. 11 - Addendum MP-2, Exhibit MP-2

The proposed Sediment Pond SP-8 is located within the current postmine approved Reservoir 14 constructed by BHCC. The bottom elevation of Reservoir 14 is currently at 3575 with a peak elevation at 3589. Sediment Pond SP-8 bottom elevation is proposed at 3585 with a high water elevation proposed at 3590. It is noted below the area capacity table on Exhibit 13, "1. Pond is entirely incised. No Spillway hydraulics are provided."

These elevations lead BHCC to believe the plan for construction of SP-8 will require Reservoir 14 to be completely backfilled prior to construction of SP-8. BHCC requests that the reconstruction and the water quality within Reservoir 14 be restored to pre-mining conditions before final bond release is allowed.

#### Objection No. 12 - Exhibit MP.4-1; Exhibit MP.4-2; Exhibit MP.4-5; Exhibit RP.5-1

The proposed mine plan indicates that topsoil and overburden removal will occur upon the BHCC Property and within the TR-1 area in years 1 and 2 of operation. Exhibit MP.4-1 shows coal removal to occur over the same first two years of operation. Exhibit MP.4-5 shows the overburden backfill sequence within TR-1 will occur in year 2. Exhibit RP.5-1 shows the topsoil replacement sequence within the BHCC Property occurring in years 12-16.

BHCC objects to this timeline of topsoil replacement upon its property. The BHCC property is the first to be disturbed and the last to be reclaimed. BHCC asks the question as to why every other proposed disturbance area is backfilled and topsoiled within a 2 to 3 year time frame except around the BHCC facilities area. The topsoil replacement timeframe is unacceptable and not contemporaneous in accordance with the Surface Mining Control and Reclamation Act, (SMCRA) and it is requested that the final

reclamation around the BHCC Property be within the 2 to 3 year time frame, similar to all other areas around the mine.

#### Objection No. 13 – Section MP.1.2.1; Figure MP.1-2.

Section MP.1.2.1 discusses the work that will be done to "prepare for highwall mining" and describes how the "trenches" will be constructed to "create working areas for highwall mining equipment". This section of the mine plan states that "The highwalls will have a 65-degree bench slope to provide a stable trench environment. Where the trench intersects the burnt Monarch coal seam, a 35-foot wide safety bench will be added. Where the Carney and Masters coal seams come close to convergence, a vertical wall will be used to maintain the desired pit width." Earlier, under Objection No. 2, BHCC discussed the presence of saturated backfill where trench TR-1 is planned to be excavated. Section MP.1.2.1 does not address in any fashion the fact that trench TR-1 will be constructed in an area containing a significant amount of saturated backfill material. In our opinion, utilizing a 65-degree bench slope in this material will be impossible as the saturated backfill will not safely at this angle. Furthermore, no geotechnical information (sampling, testing or analysis) supporting slope stability assumptions for the surface mining or highwall mining operations have been provided in the mine plan. BHCC finds the information regarding highwall bench slope angles presented in MP.1.2.1 to be inadequate given the variability of non-coal material that will be encountered during excavation of trenches in support of the highwall mining operation.

#### Objection No. 13 – Section MP.1.2.1; Figure MP.1-2.

Section MP.1.2.1 discusses the work that will be done to "prepare for highwall mining" and describes how the "trenches" will be constructed to "create working areas for highwall mining equipment". This section of the mine plan states that "The highwalls will have a 65-degree bench slope to provide a stable trench environment. Where the trench intersects the burnt Monarch coal seam, a 35-foot wide safety bench will be added. Where the Carney and Masters coal seams come close to convergence, a vertical wall will be used to maintain the desired pit width." Earlier, under Objection No. 2, BHCC discussed the presence of saturated backfill where trench TR-1 is planned to be excavated. Section MP.1.2.1 does not address in any fashion the fact that trench TR-1 will be constructed in an area containing a significant amount of saturated backfill material. In our opinion, utilizing a 65-degree bench slope in this material will be impossible as the saturated backfill will not safely stand at this angle. Furthermore, no geotechnical information (sampling, testing or analysis) supporting slope stability assumptions for the surface mining or highwall mining operations have been provided in the mine plan. BHCC finds the information regarding highwall bench slope angles presented in MP.1.2.1 to be inadequate given the variability of non-coal material that will be encountered during excavation of trenches in support of the highwall mining operation.

#### Objection No. 14 - Section MP.4.4.1

It is a well-known fact within the mining industry that the term "Reserves" connotes that the mineral being extracted can be done so economically. BHCC opines that the mining approach presented in the mine plan cannot be done economically. Based on our internal

knowledge; the operating cost for a contractor to perform highwall mining is in the \$8/Ton to \$12/Ton range, which is very close to the domestic spot price for this type of coal. By the time the other costs for the surface mining to develop the highwall mining, transportation, G&A, etc. are taken into consideration, this operation appears to be completely uneconomical.

The market for this coal is unclear. The two closest coal mines, Decker and Spring Creek, serve the domestic and international market. Port capacity to the international market is constrained and it is unlikely that Brook Mine will secure access. Domestic demand has been in decline and is significantly oversupplied. Without a definitive market, the Brook Mine is at risk of commencing operations, producing product it cannot sell economically, and reclamation obligations that it cannot fund.

#### Objection No. 15 - Section MP.15

Objection No. 4 above introduces the fact that the underground mine fires in this area are still burning and have expanded. Section MP.15 does not, in any way, address that the burned areas have expanded. A surface mine excavation that comes in contact with a historic mine fire could be catastrophic in many ways, including: impacting the safety of mine workers, damage to equipment, wildfire initiation, etc. BHCC believes this mine plan has not adequately addressed surface mining activities that will occur near underground mines and insists that the Brook Mine operators must perform the necessary testing and analysis to prove that the proposed mine plan will not be impacted by historic mine fires. Specifically, attachment 1 provided with Objection No. 3 above shows that trench TR-2 is planned very near an area that was burning and is likely still burning. Given that the burned area has likely expanded, this area should not be disturbed at all.

In conclusion, Big Horn Coal Company feels strongly that the Brook Mine permit application should not be approved or deemed technically complete. The mine and reclamation plan lack a significant amount of detail that is required for a technical completeness determination, as stated in the above mentioned objections.

Sincerely,

Jordan Sweeney

General Manager

Big Horn Coal Company

Attachment: BHCC Objection No.4 Attachment 1

