



Canyon Fuel Company, LLC
Skyline Mines
 HC 35 Box 380
 Helper, Utah 84526
 (435) 448-6463 Fax: (435) 448-2632

October 28, 2002

Pam Grubaugh-Littig
 Permit Supervisor
 Utah Division of Oil, Gas and Mining
 1594 West North Temple, Suite 1210
 Salt Lake City, Utah 84114-5801

Response
McComig
C/007/005
Copy Baron: Mike

RE: Response to the Division's October 2002 TA AM01K-1 and 1A, James Canyon Road and Wells Amendment, Canyon Fuel Company, LLC, Skyline Mine, C/007/005

Dear Ms Grubaugh-Littig:

Please find enclosed with this letter seven clean copies and four redline/strike-through copies of the modified text to the Skyline Mine and PHC Addendum that addresses the James Canyon wells and road issues. A copy of the redline/strike-through and clean text will also be delivered to the Price OGM Field Office. These modifications have been made in response to the Division's October 2002 TA AM01K-1 and 1A.

Attached to this letter is a copy of the Division's deficiencies and a brief narrative response prepared by Skyline Mine. The majority of the PHC Addendum text has been provided since only a few pages did not have modifications. Also, a portion of Section 2.5.3 of the M&RP has been modified to address Water Replacement issues for the existing permit area.

We appreciate your patience and help in considering this submittal. If you have any questions, please call me at (435) 448-2669.

Sincerely,

Chris D. Hansen
 Environmental Coordinator
 Canyon Fuel Company, LLC

enclosures

RECEIVED

OCT 29 2002

DIV. OF OIL, GAS & MINING

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change New Permit Renewal Exploration Bond Release Transfer

Permittee: Canyon Fuel Company, LLC

Mine: Skyline Mine **Permit Number:** C/007/005

Title: Response to October 16, 2002 James Canyon TA, AM01K-1 and 1A

Description, Include reason for application and timing required to implement:

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

- | | |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ <input type="checkbox"/> increase <input type="checkbox"/> decrease. |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 2. Is the application submitted as a result of a Division Order? DO# _____ |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 4. Does the application include operations in hydrologic basins other than as currently approved? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 6. Does the application require or include public notice publication? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 7. Does the application require or include ownership, control, right-of-entry, or compliance information? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 9. Is the application submitted as a result of a Violation? NOV # _____ |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 10. Is the application submitted as a result of other laws or regulations or policies?
<i>Explain:</i> _____ |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 11. Does the application affect the surface landowner or change the post mining land use? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2) |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 13. Does the application require or include collection and reporting of any baseline information? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 15. Does the application require or include soil removal, storage or placement? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 16. Does the application require or include vegetation monitoring, removal or revegetation activities? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 17. Does the application require or include construction, modification, or removal of surface facilities? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 18. Does the application require or include water monitoring, sediment or drainage control measures? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 19. Does the application require or include certified designs, maps or calculation? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 20. Does the application require or include subsidence control or monitoring? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 21. Have reclamation costs for bonding been provided? |
| <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream? |
| <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 23. Does the application affect permits issued by other agencies or permits issued to other entities? |

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

DOUGLAS E. JOHNSON
Print Name

Douglas Johnson, TECH. MGR, 10/28/02
Sign Name, Position, Date

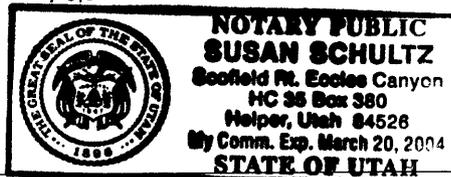
Subscribed and sworn to before me this 28 day of Oct, 2002

FOR DAN MEADORS, MINE MGR.

Susan Schultz
Notary Public

My commission Expires: 3-20, 2004

Attest: State of UT } ss:
County of Cannonville



For Office Use Only: 	Assigned Tracking Number: 	Received by Oil, Gas & Mining <div style="font-size: 24px; font-weight: bold; margin: 0;">RECEIVED</div> <div style="font-size: 18px; font-weight: bold; margin: 5px 0;">OCT 29 2002</div> <div style="font-weight: bold; margin: 0;">DIV. OF OIL, GAS & MINING</div>
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SUMMARY OF RESPONSES TO THE DEFICIENCIES

Regulations

R645-301-230, 1) Correct the discrepancy between statements made on pages 4-30(b) and 2-120 (j) concerning the amount of topsoil removed from the pipeline disturbance. 2) The plan reports an average of 6.5 inches salvaged from the 20,000 sq ft drill pad on page 2-120 (f). This should have created a pile containing 400 cu yds, but the plan reports a 100 cu yd of topsoil stored. Correct the statement on page 2-120 (f) to reflect that an average of one inch of topsoil was salvaged from the site. Provide an explanation for the limited amount of topsoil stored for reclamation of the site and develop a reclamation plan to reduce compaction and enhance the drill site pad with organic matter amendments since very little topsoil was salvaged from the site. 51

These discrepancies have been corrected in Section 2.11 and 4.20. The statement on page 2-120(f) has been corrected.

R645-301-240, The plan must indicate that the top four feet of reclaim surface will not be compacted. 55

Section 4.20 has been modified to indicate the top four feet of the reclaim surface will not be compacted.

R645-301-244, The Plan indicates on page 2-63(b) that reclamation work was completed by September 14, 2001. The seed mix was not developed for the site until October 15, 2001. If the seeding was accomplished by September 14, 2001, please indicate what seed was used in reclamation of the site. If the seed mix described on page 2-63(e) was used, please indicate the correct date of seeding. 57

The confusion regarding the seed mix used was clarified in Section 4.20.

R645-301-321, Pre-coal mining disturbance diversity and productivity adequate to predict the potential for reestablishing vegetation must be provided. 13

This information is provided in Section 2.7 and was prepared by Patrick Collins of Mt. Nebo Scientific.

R645-301-322.360, A map showing farm fields in Pleasant Valley that could be affected by the high flows in Mud Creek, including information on ownership, size of the operation, the crop grown, the historical yield of that crop and the value of the crop, relationship of the acreage in Pleasant Valley to the total farm acreage as defined by R645-302-323.400. 17

This information is provided in the modified portions of Section 2.12.

SUMMARY OF RESPONSES TO THE DEFICIENCIES

R645-301-333, The MRP must provide a reference to the report titled A Compilation and Comparison of Eccles Creek Macro-Invertebrate Data for the Period of 1979 – 2002..... 49

Section 2.8 was modified to include this reference.

R645-301-333, The Permittee must continue macroinvertebrate sampling in Eccles and James Canyon until a trend in populations can be established. Permanent sampling stations must be identified. Permanent sampling stations and methodology for current and any future macroinvertebrate sampling must be described in the MRP..... 49

The commitment to continue the macroinvertebrate studies in Eccles and James Creek is included in Section 2.8.

R645-301-342.100, Fish and wildlife enhancement measures used during reclamation must be described. 54

Fish and wildlife enhancement measures to be used during reclamation are discussed in Section 4.18.

R645-301-355, The Permittee must provide a commitment to remove the waterbars at Phase II bond release or at reclamation. 57

A commitment to remove the water bars from the reclaimed James Canyon road has been provided in Section 4.20.

R645-301-355, The Permittee must provide a rate of hydromulch application if used as surface mulch during reclamation in James Canyon. 56

The rate of Hydromulch application, if used, is discussed in Section 4.20.

R645-301-356, The Permittee must correctly describe the success standard required for bond release. 56

The success standard required for bond release was described by Patrick Collins of Mt. Nebo Scientific and incorporated in Section 2.7.

R645-301-728, 724.420, and 724.500, 1) The Operator must expand the scope of the hydrogeologic investigation beyond mining considerations to include regulatory requirements for environmental considerations, especially potential impact to the Hydrologic Balance, **2)** The Operator must provide the Porosity, Specific Yield, and Hydraulic Conductivity of the water bearing formations to justify conclusions regarding their ability or inability to hold and release underground water. This must include formations above and below the coal seams to show the nature of vertical water flow in the area. The application suggests there is better

SUMMARY OF RESPONSES TO THE DEFICIENCIES

water flow from below than from above the coal seams. Justification for this difference must be provided

This is addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 3) The Operator must provide multiple figures, or a combined figure, showing the changes in potentiometric levels as they occur over time in the mine area. That time should start before any mine water inflows occurred and continue until the most current month for which data is available,

This is addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 4) The coinciding of potentiometric surface and Electric Lake level must be shown in the amendment cross-section drawings and discussed in the Probable Hydrologic Consequences,

Drawing PHC A-4 of the PHC Addendum was modified to illustrate Electric Lake Water levels that were obtained on a date near the date water levels were measured in two of the mine's water monitoring wells.

- 5) The Operator must provide a discussion as to whether surface waters might acquire a slightly different ionic composition, as shown on Piper diagrams, as they move from the surface down through the rock layers in a fault, assuming that were taking place. Include the time-dependence of such possible action,

This issue is addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 6) Due to the small number of data points for sample sets, and the lack of any statistical evaluation of the data, several conclusions cannot be regarded as statistically valid. The Operator must provide statistical validation to support any conclusions for sampling and analyses of Stable Isotope Ratios, Tritium, and Carbon 14. This includes all data submitted in the HCI report, the PHC Addendum, and all other data presented,

This issue is addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 7) The PHC must address changes in Tritium levels and explain possible reasons for those changes,

SUMMARY OF RESPONSES TO THE DEFICIENCIES

This issue is addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 8) The Operator must consider the limitation of Tritium to age date waters in that the only differentiation that can be made is whether the waters are younger or older than 1953. Arguments and conclusions drawn must include this limitation, 9) The Operator must provide Laboratory data sheets for all the water samples analyzed for Tritium and Carbon 14,

These issues are addressed in the new Appendix G to the PHC Addendum. The response was prepared by Petersen Hydrologic.

- 10) The Operator must include Electric Lake in the ground water modeling and in the PHC. Both must include total storage capacity contributing to the groundwater, surface area contacting the ground, hydrostatic head relative to underground water systems, and faults intersecting the lake that could contribute water to underground system, especially those that intersect the lake and the mine,

The ground water model that HCI was preparing has not yet been completed. There are some difficulties in preparing a useful model since there is a lack of ground water monitoring wells and the wells present are not all completed in the same hydrostratigraphic horizon. A discussion has been provided in the text of the PHC Addendum and in Appendix G of the PHC Addendum that discusses the effects of mine dewatering on Electric Lake.

- 11) The Operator must include in their investigation, and in their modeling, the following considerations regarding the underground aquifer described in the HCI report: What is the source of the energy to develop the potentiometric surface? Where did the water in the aquifer originally come from? Where does this aquifer get its new recharge water?

As above

- 12) The Operator must address the following in their next submittal. What panels will and will not be mined in Mine 2 before operations cease in that mine? Specifically, will panels 11-Left and 12-Left be mined? What are the plans to install seals and stoppings in Mine 2? What pumping locations would be associated with such plans? Include a map showing locations and planned installation dates of the seals, stoppings, and pumps. What hydrologic changes are expected as a result of the future plans in Mine 2? Specifically, to what elevation will the water level rise in the mine, and what are the anticipated total pumping rates when the water reaches that elevation? Will this water be pumped into Eccles Creek or pumped into Electric Lake? When will all this occur? What are the plans to upgrade the James Canyon pumps? How long will the James Canyon wells continue to operate? At what pumping rates? What actions will be taken to keep Mine 2 in a condition to facilitate future mining? Given the relatively short time of 7 years it will take to mine out the North Lease (Winter Quarters), will mining continue in the Flat Canyon tract? If so, what pumping and other conditions will be needed to mine that tract? What is the estimated time frame for mining Flat Canyon?..... 44

SUMMARY OF RESPONSES TO THE DEFICIENCIES

most of these issues are discussed in the modified text of the PHC Addendum. However, since Skyline Mine does not own or hold the Flat Canyon Lease, no time projections regarding when and if mining will occur have been provided. It is apparent that the coal in the Flat Canyon area cannot be economically mined at this time because of the potential for large volumes of water that would be expected to be encountered during mining. If the area is dewatered in the future and it is determined mining can be economically performed, a modification to the permit and PHC will be needed.

R645-302-322.421, A description of the characteristics of Mud Creek including roughness, slope and vegetation of the channel, and the physical and chemical properties of the subsoil that will endure sustained high water flows. 17

Mud Creek is characterized in Section 2.12. This work was performed by EarthFax Engineering.

R645-302-322.431, The geometry and physical character of Pleasant Valley, expressed in terms of the longitudinal profile and slope of the Valley and the channel, the sinuosity of the channel, the cross-section, slopes and proportions of the channels, flood plains and low terraces, the nature and stability of the stream banks and the vegetation established in the channels and along the stream banks and flood plains. 17

AS above

R645-302-322.432, The historical nature of surface flows of Mud Creek as shown by the frequency and duration of flows of representative magnitude including low flows and floods. 17

As above

R645-302-324.300, (1) A monitoring plan for stream bank erosion control in Mud Creek and 2) Monitoring of the flows in Mud Creek for quantity and quality and at adequate frequency to determine seasonal trends that could affect farming in Pleasant Valley. 17

As above

R645-302-433, contributions to base flow in Mud Creek from the subsurface. 17

As above

SUMMARY OF RESPONSES TO THE DEFICIENCIES

R645-301-728 and -731, 1) The Operator must provide age date testing of the mine inflow waters. This needs to include all six inflow points in the mine as shown on Dwg. PHC A-2 and the water being pumped from the James Canyon wells, JC-1. The water age data for each location should be plotted through time since the water first entered the mine to the present time. An explanation of what the data shows also needs to be included. In particular, describe whether the age of the water at each location is remaining the same or changing in any way, and

Water samples from each of the locations shown on Drawing PHC A-2 have not been obtained on a frequent enough basis to satisfy this comment. However, sufficient tritium samples have been obtained from a few selected mine inflow sites and the results of the analyses are discussed in detail by Petersen in Appendix G of the PHC Addendum.

2) The Operator must provide an updated Figure PHC A-5 including a text explanation of the slope and it's meaning, and

Figure PHC A-5 was removed from the PHC in the July PHC submittal and replaced by a similar figure in Appendix A of the PHC Addendum. A discussion regarding this well and the observed drawdown is included in the modified text of the PHC Addendum.

3) The Operator must provide a table listing parameters described above for all screened wells in the Skyline Mine area.

This Table is included with the modified text as table PHC A-2.

R645-301-121.200 and .300, 1) The Operator must provide an Index to Appendix A to facilitate finding information referred to in the text, and

A table of contents for the PHC Addendum has been included. The TOC includes an index for Appendix A.

2) There needs to be a comprehensive and thorough discussion of the data with specific reference to the figures indicating how inferences and conclusions are achieved. This applies to all technical discussions included in the submittal, and

This issue is addressed by Petersen in Appendix G of the PHC Addendum.

3) The Operator must revise Dwg. No. PHC A-4 to add a vertical scale on both sides of the drawing indicating Mean Sea Level Elevation. Leave the well casing figures as they are.

This modification was performed to Drawing PHC A-4.