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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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February 8, 1994

TO: File

THRU: Daron Haddock, Permit Supervisor

FROM: Sharon Falvey, Senior Reclamation Hydrologist SKF

RE: Wellington Midterm Response Submittals March 26, 1993, June 25, 1993 and December 10, 1993, Castle Valley Resources, Wellington Preparation Plant, File #2, ACT/007/012, Carbon, Utah

SUMMARY:

The operators February 12, 1993 response and R645-301-112.230 - 112.400, 301-114, and 301-120 #1 through #3 are not reviewed because the operator has submitted a Chapter 1 amendment which is currently under review. Other deficiencies not identified by myself are not included herein.

The operator has adequately responded to some deficiencies. Other deficiencies remain inadequate. The major problems with the existing document include characterizing the fine slurry and course refuse piles and, the potential for toxic constituents. Other areas lacking adequacy are in the summary analysis of the ground water and surface water, and drainage and sediment control measures for the reclamation plan. None of the submitted versions of the permit facilities map are complete. However the version submitted on June 25, 1993 is the most legible.

The operator has proposed changes to pond designs including, increasing the spillway height on the Road Pond and constructing a new Dryer sediment pond. The operators plan will also include construction of concrete structures for petroleum storage.

ANALYSIS

R645-301-120. Permit Application Format and Contents. Be clear and concise; and Current.

February 12, 1993

Previously Identified Deficiency:

4. *Provide a legible picture of the screening plant.*

5. *Clearly state what operations are proposed for this 5 year term. Make all references to past, present, and future proposed operations clear and consistent throughout the*

plan.

6. *Correct the sections indicating fines removal is a post mining land use.*

7. *The permit area should be correctly reflected on all maps.*

8. *Provide clear and legible design information photocopies in Volume II, Hydrology Appendix.*

9. *Indicate that the suspension bridge on Diagram E9-3430 does not exist.*

Response and Analysis :
General

4. Exhibit 6 shows the screening plant that was moved to the Wellington site for load out operations in 1989. The photo provided is a clear and legible color photo copy.

5. The response for this deficiency was not addressed within the memo. The operator did not clarify present use of the existing facilities within the description of the facilities Section 5.26.

6. Section 4.12, page 1, states that grazing, cropland or industrial use are pre-mining land uses. Croplands and grazing are currently present in the property boundaries of the Wellington area. Recently the operator decided to develop the area as an industrial site. The Operator also includes a discussion of proposed fines removal in conjunction with the industrial site. It is not clearly stated what the operator will do for postmining land use. The operator has not made it clear that fines removal is considered a mining operation: not, a post mining land use. The operator implies that removal of fines is not considered a reclamation measure but, ties the mining activity to a proposed post mining land use.

7. Map G9-35-10, as well as others incorrectly illustrates the permit area. **This deficiency was not addressed here.**

8. The operator resubmitted pages 6/12, 7/12, 8/12, 9/12, 10/12, 11/12, for Watershed #7 and 2/10, 3/10, 4/10, 5/10, in Watershed 8, pages 3/3 in Watershed 10, and page 5/7 in ASCA #5, Volume II Hydrology Appendix. Photocopies provided are more legible with some portions remaining non-legible. Determination of need to clarify additional information will be based on individual review requirements.

9. Diagram E9-3430 shows a diversion dam suspension bridge and sluice way to the pumphouse. The suspension bridge does exist. The identified deficiency was in

error.

New

10. The operator has moved the label for the Bridge on Exhibit E9-3341(12/10/93). The bridge, the operator is considered responsible for, is located at the north west portion of the site. Not, on the county road. The operator has adjusted the permit boundary in this area so that it no longer includes the bridge.

11. The operator does not provided labels that are clear and easy to locate on the presented Exhibit E9-3341(12/10/93). No north arrow is shown and, the map is not certified. The label "X " described as the course refuse pile could not be located. However, both course refuse piles are shown under other labels on Exhibit E9-3341(12/10/93).

    The Siaperas Ditch label "Y" on map E9-3341(6/25/93) could not be found. Other labels are present but, are in some cases difficult to locate. The labels are easier to read on revision 6/25/93 than revision 12/10/93.

12. The operator has not identified the location of the Septic Tank and Drain Fields.

Deficiencies:

5. The operator did not clearly identify the present use of existing structures. Specifically, present and past use should be described in the existing facilities description Section 5.26.

7. Illustrate the correct permit area on Map G9-35-10.

New Deficiencies

10. The operator should justify why the label of the bridge and permit boundary have been moved or, retain the previously approved information on Exhibit E9-3341.

11. The operator must provide labels that are clear and easy to locate on Exhibit E9-3341(12/10/93). North arrows and map certification must be provided.

12. The operator must identify the location of the Septic Tank and Drain Fields on map E9-3341.

R645-301-542.1 Reclamation Time Table
March 25, 1993

Proposal:

The operator submitted a new time table in response to Deficiency R645-301-542.

Analysis:

The operator indicates the sedimentation controls will be removed West of the Price River, in year 3-5, when adequate vegetation is established. The operator should include the remainder of the requirements as identified in R645-301-763.100.

The operator should include the removal of monitoring wells within the reclamation time table. It is not clear if or when the operator is proposing to fill in the siltation structures.

New Deficiency:

1. Include the requirements of R645-301-736.100 in discussion of removal of siltation structures. Include the removal of water monitoring wells within the structure of the reclamation time table.

R645-301-700. Hydrology.
R645-301-712. Certification: Cross-sections, Plans, Maps
Response 3/26/93

Previously Identified Deficiencies

1. *Provide certification on all applicable maps plans and drawings.*

2. *Provide the sediment volume and existing storage capacity for the Upper Refuse Piles and Clear Water pond.*

Proposal:

1. Certification will be provided on all maps needing certification.

2. Capacity for the Clearwater pond is 190 acre-feet to the spillway, as included in the Hydrologic Appendix for Watershed #7. The Upper Refuse Basin is about 50 -acre feet at spillway elevation. See Section 7.33 pp. 1 through 4. Comparison of new mapping and mapping from the 1980's reveals there is negligible sediment deposition in the upper refuse basin.

Analysis:

1. All cross-sections plans and maps submitted in this section requiring certification included E9-3460 - Lower Refuse Dike, E9-3443 - Vegetation Study, E9-3343- Current land use, E9-3342(1) - Restoration Map, E9-3341- Facilities and Disturbed Area, D5-0163- Pipeline Sediment Pond, F9-177 (2 of 2) and (1 of 2) - Hydrologic evaluation map. Other Applicable maps and designs required to be certified are not included in this revision. Maps E9-3341 and F9-178179 submitted December 10, 1993 were not certified.

2. The Operator has consistently indicated the Upper refuse pond and Clear water pond have unknown impounding capacity in inspection reports. The Operator has new flight maps and has attempted to delineate the material in the upper refuse basin for the proposed fines removal. This material should be utilized to determine the existing volume of refuse in the upper refuse pond. The deficiency will be considered complete at this point.

Deficiencies:

1. Maps E9-3341 and F9-178, 179 submitted December 10, 1993 were not certified. Until full all maps are approved and certified this deficiency should be considered incomplete.

R645-301-713. Inspection. Impoundments will be inspected as described under R645-301-514.300.

March 26, 1993

Previously Identified Deficiency:

1. If the operator addresses the inspection requirements, a discussion of all applicable inspection requirements should be included to provide a clear and accurate document.

Response:

1. Attached 5.14 (3/26/93) replaces 5.14 in the MRP. "Most inspections are done quarterly, kept on site and submitted to the Division annually." is removed from the operators comments

Analysis:

1. The Operator should be aware that all impoundments require quarterly inspections as

well as the weekly requirements meeting MSHA size criteria. Page 1 Section 15.13, page 1,(6/25/93) and page 2 indicate the Ponds and impoundments will be inspected quarterly. The Operator is required to inspect all MSHA impoundments weekly. It may behoove the Operator to identify the requirements of each of their impoundments, refuse piles and ponds.

Deficiencies:

1. Correct Section 15.13, page 1 and 2, which indicate that ponds and impoundments will be inspected quarterly. All applicable inspection requirements should be included in the sections where inspection requirements are referenced to provide a clear and accurate document.

R645-301-721 General Requirements-Hydrologic Resources

Previously Identified Deficiency:

1. *The permittee should include, in Section 7.21 of the MRP, a description of the Price River and of the alluvial aquifer as hydrologic resources. Information given elsewhere in the MRP may be summarized here and references given to sections where more detailed information is already included.*

Response:

1. A brief description of the alluvial aquifer and Price River hydrologic resources is added to section 7.21, references section 7.22.1 and 7,28,2 for ground water location and extent. Ground water quality is discussed in Section 7.22.2, 7.24.2 and 7.28.2.

Analysis:

1. The operator has included the information requested in Section 7.21.

Deficiency:

None.

R645-301-724. Baseline Information.
March 26, 1993

Previously Identified Deficiency:

1. *The Applicant should remove or clarify duplicate water rights points, and the status of rights for water users within the cumulative impact areas.*

2. *The Operator must identify which water right is specific to the track hopper.*

Proposal:

1. Two points shown with the same water right number define either multiple diversion points or, the beginning and end of a reach where water may be diverted. Water rights described, in the legend of Drawing NO. G9-3507, as being unapproved are going through the approval process.

2. Based on the location of the diversion point it appears that water right 91-254 is associated with the track hopper. It allows water withdrawn from the underground sump for industrial use.

Analysis:

1. The Operator should make the information on the legend of G9-3507 reflect the clarification as provided in the cover letter.

2. The operator appears to have a water right associated with the track hopper.

Deficiencies:

1. The Operator should make the information on the legend of G9-3507 reflect the clarification provided in the cover letter.

R645-301-724.100. Ground Water Baseline Information
R645-301-724.200. Surface Water Baseline Information
March 26, 1993

Previously Identified Deficiency:

1. *The Permittee should provide clear and concise information to allow correlation of water rights, especially water well locations, from Tables 7.24-1 and 7.24-4 to locations shown on Drawing G9-3507.*

Response:

1. Table 7.24-1 is updated to include the Township, Range and Section no. of the groundwater sources. Table 7.24-4 was not updated due to its voluminous nature.

Analysis:

1. Table 7.24-1 and 7.24-4 list water rights. The information presented for 91-4396 appears to have an incorrect section number identified as S13 and should be S14. Because of other water diversion information on Drawing G9-3507, Water User Claim Numbers from Tables 7.24-4 are difficult to locate on Drawing G9-3507 and information cannot be readily correlated between the two sources.

   Water rights for areas should be easily correlated within a range of potential impact. If an accidental spill or other water quality or quantity impact was detected the Water user may need to be notified. This information should be easily determined through this plan. Points of diversions could be easily obtained from the Department of Water Rights.

Deficiencies:

1. The Permittee should provide clear and concise information to allow correlation of water rights, from Tables 7.24-1 and to locations shown on Drawing G9-3507 for those areas which could be within a range of potential impact.

R645-301-724.700. Permit area or adjacent area that includes any stream will meet the requirements of R645-302-320.

March 26, 1993

Previous Deficiency:

1. Summarize the AVF information located throughout the document. Provide mapping and documentation as required by R645-302-320.

Response:

1. Section 7.24.7 references information found in Section 2.0 and summarizes information found within the permit. Wellington load out appears to be located on alluvial deposits and there is evidence of historic flood irrigation to the fields between the DRG&W railroad and the Price River. Subirrigation in this area is however not highly beneficial because of poor ground water quality.

The General map unit is Ravola Billings Hunting unit (Figure G9-3510) and are described to be salt and alkali affected in some areas. A letter from the State Conservationist states "no prime farmland occurs " and "without irrigation water the moisture requirement for prime farm land cannot be met." Figure E9-3443 shows riparian and agricultural habitat.

The water in the loadout area is classified as a strong sodium-sulfate type water according to the operators description. Alluvial flood plain deposits are underline by Blue Gate Shales and alluvial aquifers are of limited use.

Analysis:

1. The operator has presented information to be used by the Division to determine whether an AVF exists in the permit area. The existing permit states that Coal Processing Plants not located at or near the mine site or within the permit area for a mine are not required to investigate the presence of AVF's (UMC 785.19, UMC 827). The current regulations R645-302-320 applies to any person who conducts or intends to conduct coal mining and reclamation operations on areas or adjacent to areas designated as alluvial valley floors. Coal mining and reclamation operations include preparation plants. The Division should make the determination on the basis of the presented information to be included in the permit findings and CHIA area.

Deficiency:

No deficiencies are recognized at this time.

R645-301-728. Probable Hydrologic Consequences (PHC) Determination.
March 26, 1993/December 10, 1993

Previously Identified Deficiencies:

1. *Provide an estimate of current and long term potential water use based on operational procedures.*

2. *Discuss how the present operations prevent hydrocarbons from entering the ground water. Provide sizing of containment berms for storage tanks areas.*

3. *Include mapping, using adequate scale, for all potential contamination sources including truck wash down areas, steam cleaning area where de-greaser are used, oil changing area, and the oil and antifreeze storage area adjacent to the office, any other potential storage areas with contamination sources.*

4. *Clarify suitability of the surface facilities map location EE for storage of Non-Coal waste, clarify types of noncoal waste storage at the area. Identify all other waste sites.*

5. *Identify all potential contaminates including antifreeze.*

6. *Expand the discussion of trends of water quality to operations as a result of dilution of water infiltration at the slurry ponds. Include discussion of potential post mining conditions related to water availability and climatic changes. Specify what parameters are expected to respond to those conditions.*

7. *Discuss potential impacts of high Sodium/SAR, Boron, Selenium etc. from the slurry cells on water quality.*

8. *Include a discussion of the previous locations and recent removal where PCB transformers were located.*

9. *Discuss potential impacts from the Track Hopper basement which is open to the water table. Provide measures to protect the water at this point.*

Response:

The operator states that the response to R645-301-728 was provided in March 1993 submittal. The operator only provided a response summary for parts 728-200 discussions. However, the presented information was reviewed for these deficiencies.

1. No foreseeable changes in operations are planned. The Operator has stated Water and Rights and uses are included in the hydrologic section of the permit.

2. Clarifications have been made to Section 7.28. pg 15. The gasoline and diesel fuel storage tanks will be modified as follows: tanks will be moved and any contaminated soil currently found will be removed and properly disposed of, rectangular concrete bases will be constructed with 1.0 ft sides.

3. Map E9-3341 provides the facilities mapping showing the oil storage area, fuel storage building, and the non-coal waste storage area. The operator has also failed to include the septic tank with drain fields.

4. Information on Site EE is clarified in the December 10 submittal. In the PHC, Table 7.28.4, states that all chemicals are currently stored within the beltline and power building.

5. The operator states that no acid-toxic materials are used within the permit area.

6. The Acid Toxic impacts are discussed for the site in section 7.28.3.1. The operator reviewed Analysis of leachate from Tables 7.28.5 and 7.28-6. According to Section 7.28 page 19, "...little water quality impact should occur as a result of acidity either during operations or reclamation. In short it appears that water quality impacts should be less than those currently experienced."

7. The operator reviewed Analysis of leachate from Tables 7.28.5 and 7.28-6.

8. No reference was made to the removal of the PCB transformer previously existing at the pumphouse.

9. This deficiency could not be found within the text of the MRP.

Analysis:

1. The operator has not included an estimate of current water use for mining operations but, implies that the use is small.

2. Provide sizing of containment berms for storage tanks areas. The operators proposed pad area should demonstrate that it is able to contain the volume of the largest container within the pad area. The operator should also have a locking drain or method available to drain the structure should it become filled with water or oil.

3. Map E9-3341 provides the facilities map showing an oil storage area, fuel storage building, and the non-coal waste storage area. It does not identify all potential contamination sources including truck wash down areas, oil changing area, or the steam cleaning area where de-greaser are used. There is some question as to whether the mapping scale provided is appropriate as a defined storage area can not be determined.

4. The operator has not clarified this deficiency for site EE. The map included in the December 10, 1993 submittal was not approved. Therefore, this deficiency must be considered incomplete.

5. The operator states that no acid-toxic materials are used within the permit area. See further discussions R645-310-731. The operator states that chemicals are stored within the Beltline and Power Building. A list of these chemicals should be provided.

6. The Acid Toxic impacts are discussed for the site in section 7.28.3.1. The operator reviewed Analysis of leachate from Tables 7.28.5 and 7.28-6. The Fine Refuse sample is analyzed for Total Sulfur Acid-Base potential but, does not address toxic parameters or SAR. The lab reports and methodology should be provided in an

appendix or referenced if already provided. The operator's summary paragraph indicates little water quality impact should occur as a result of acidity but, ignores other potential impacts.

A discussion in section 7.28 indicates concentration of many parameters was reduced during the period of operations prior to 1985 as a result of ground water infiltration and dilution. Current operations and post reclamation operations will not provide the dilution factor indicated to be present prior to 1985. The operator has not provided reasoning supporting the concluding statement that water quality impacts should be less than those currently experienced. A discussion of potential post mining conditions related to water availability and climatic changes should be included. Specify what parameters are expected to respond to the changing climatic conditions.

7. The operator's analyses does discuss the high SAR in the Plant Refuse Pile as well as basic pH. However, the operator does not address the occurrence of Boron, Selenium and other metals which may occur under basic pH and high SAR conditions. The operator states that the dilution factor 1:52 for low flow years and 1:962 for high flow years could result in an increase between 8 and 150 mgl a 0.4 to 7.5 % increase for TDS levels and other water quality parameters would be similar.

8. The operator did not provide a discussion on removal of the PCB containing transformer removed from the pumphouse site in 1992. This information may be included for historical reference in the text of the Technical Analysis Deficiency.

9. The operator has not addressed the deficiency within the text of the plan. See R645-301-731 #5.

Deficiency:

2. Provide sizing of containment structures for storage tanks areas. The operators proposed pad area should demonstrate that it is able to contain the volume of the largest container within the pad area. The operator should also have a locking drain or method available to drain the structure should it become filled with water or oil.

3. Identify all potential contamination sources including truck wash down areas, steam cleaning area where de-greaser are used and oil changing area. There is some question as to whether the mapping scale provided is appropriate as a defined storage area can not be determined.

6. Expand the discussion of trends of water quality to operations as a result of dilution of water infiltration at the slurry ponds. Provide reasoning supporting the concluding

statement that water quality impacts should be less than those currently experienced. Include a discussion of potential post mining conditions related to water availability and climatic changes. Specify what parameters are expected to respond to those conditions.

7. Discuss potential impacts of high Boron, Selenium etc. from the slurry cells on water quality.

R645-301-731. General Requirements.
March 26, 1993

Previously Identified Deficiencies:

1. *Include quarterly monitoring for all surface water sites. Commit to sample collection during storm precipitation events for ephemeral drainages and include copies of the UPDES DMR in quarterly reports.*

2. *Provide a discussion of pertinent operation methodologies, such as flow and water table depth measurements, used to gather data that have significant bearing on the data analysis.*

3. *Identify pertinent methodologies/information on the data sheet, for the depth to water in wells and surface flow.*

4. *Include the Cation-Anion balance, Boron and Selenium on the quarterly water quality monitoring parameter list.*

5. *Include the track hopper in the water monitoring plan. Sample for a complete extended parameter list including hydrocarbon sampling to aid in assessing necessary quarterly parameters for the monitoring plan. Discuss results.*

Response:

1. Statements have been modified to state that surface water monitoring stations will be monitored quarterly. It is anticipated that these stations will not be monitored during local precipitation events for the following site specific reasons. The applicant will agree to collect water quality samples from the straw bale and silt fence area adjacent to station SW-4. Section 7.31.2 pp.3-6 is modified.

2. Clarifications have been made to Section 7.31.2, regarding sampling procedures for ground and surface water stations.

3. Sampling data collections sheets will be modified to include pertinent information for depth to water in wells and surface flows.

4. The Cation-Anion Balance as well as boron and selenium have been added to the quarterly monitoring lists.

5. The operator indicates in the cover letter that it is believed the Track Hopper does not need to be sampled as part of ongoing water monitoring program because:
   a. Water in the track hopper is relatively stagnant. Evaporation in the hopper will continue to create a water demand scenario and therefore a continued seepage into the hopper.
   b. No physical evidence exits of either a visual or odorous nature.
   c. Containers and materials floating on the surface have been removed there has been no historical visual appearance of oils or grease.
   d. Earlier sample collected by the Division showed no anomalous data for the limited parameters analyzed.
   e. The track hopper is a totally enclosed structure with limited access to human or animal activity. Little potential for contamination exists.
   f. Water being pumped from the hopper will not contaminate the source but will maintain inflow to the hopper.

Analysis:

1. The operator states that it is anticipated that these stations will not be monitored during local precipitation events for the following sight specific reasons. The operator does not follow this statement with site specific reasons, nor is it indicated what stations are referred to. Further clarification of this issue can be found in section 7.28 page 5. The operator should reference this section in Section 7.31.2 pp.3-6. The information on surface water monitoring indicates the operator will monitor 1 surface site quarterly and (7)semi-annually. on 7.31 page 5. The operator's commitment to monitor quarterly conflicts with this statement.

2. Clarifications have been made to Section 7.31.2, regarding sampling procedures for ground and surface water stations. The context of these procedures was not thoroughly reviewed at this time.

3. Prior to indicating the depth to the water surface is measured from the collar to the water elevation the operator indicates 3 casing volummes of water will be bailed Section 7.31, page 3. The operator does not clarify that the water elevation should be obtained prior to bailing the well. Information added to the groundwater stations included the datum elevation and ground surface elevation. Surface water stations will include flow calculation method used and flow calculations.

4. The operator has met this requirement.

5. The operator indicates that the water will continue to seep into the hopper because of a constant evaporation draw. However, the gradient in the alluvial aquifer is likely toward the price river. (The map of water surface in the area shows the lowest water elevation to be in the area of the supports the lowest water elevation being in the area of the track hopper however, the water surface profile seems to ignore the controlling effect of the river elevation and geology on the alluvial groundwater elevations). The operator has not met the requirements of this deficiency. The operator has not demonstrated protection of the water source or provided a monitoring commitment or included the discussion of why the water source is not monitored within the text of the PHC.

Deficiencies

1. The operator must remove conflicting and clarify statements regarding surface water monitoring in this submittal. For instance: the operator states that it is anticipated that these stations will not be monitored during local precipitation events for the following site specific reasons: this statement is not followed with site specific reasons nor, is it indicated what stations are referred to; the information on surface water monitoring on 7.31 page 5. conflicts with the operator's commitment to monitor quarterly.

5. Include the track hopper in the water monitoring plan. Sample for a complete extended parameter list including hydrocarbon sampling to aid in assessing necessary quarterly parameters for the monitoring plan. Discuss results. Or, provide a valid discussion of why the water source is not monitored based on a one time full baseline analysis to be placed within the text of the PHC. Protect the water source providing a statement that the hopper will remain locked unless used by a company representative and provide a commitment to monitor at a minimum the 5 year baseline.

R645-301-731.200. Water Monitoring

Previously Identified Deficiency:

1. If the Permittee is actually following an operational sampling program similar to that outlined in DOGM's Guidelines for Establishment of Surface and Ground Water Monitoring Programs for Coal Mining and Reclamation Operations (1986) rather than measuring for the entire extended or "baseline" list of parameters on pages 6-7 of Section 731.200, then the Permittee should submit for DOGM's approval an amended

Section 7.31 that clarifies and updates the water monitoring program. The Permittee should make note that the Guidelines recommend measurement of all parameters on the extended list during the year preceding repermitting.

2. *The Permittee should consider adding measurement for dissolved iron and manganese to the water monitoring parameters. This addition should be included in the amendment of Section 7.31.*

3. *The Permittee should make reference in Section 7.31 to parts of Section 7.24 that pertain to the operational monitoring program, specifically the proposals to improve the sampling program, or incorporate that information directly into this section.*

Response:

1. The Baseline and operational sampling has been modified to correspond to those currently recommended by the Division. Parameters for quarterly ground water and quarterly and semi-annual surface water analysis are given in Section 731.200.

2. Dissolved iron and manganese have been added to the water quality monitoring program.

3. A booklet of sampling procedures is added to the appendix of Section 7.31, and to parts of Section 7.24.

Analysis:

1. The operator is missing the following parameters from the current list recommended by the Division lead, pH, and Specific Conductance as a groundwater laboratory parameter, and pH, and Specific Conductance as a surface water parameter. On Page 7.31 the operator commits to monitoring baseline parameters prior to the renewal period.

2. The requested Dissolved Iron and Manganese parameters are included in the monitoring plan.

3. A booklet of sampling procedures is added to the appendix of Section 7.31, and to parts of Section 7.24.A. Reference to appendix Section 7.31 was found in sections 7.31.2. The context of Appendix 7.31 was not reviewed.

New Issues

4. The operator indicates that the water monitoring will continue through bond release. However, the operator has not indicated how the monitoring wells will be protected

during regrading. The operator has not provided a monitoring plan for the reclamation period demonstrating regulatory requirements for surface water are met. The operator should provide an additional monitoring point at the inlet of the impoundments during the reclamation period. The operator might want to consider the addition of perforated PVC pipe for specific monitoring of water within the slurry cells.

Deficiencies:

1. The operator should include or, justify the exclusion of, the following parameters; Lead, pH, and Specific Conductance as a groundwater laboratory parameter; and pH, and Specific Conductance as a surface water parameter.

4. The operator should provide a reclamation monitoring plan designed to achieve the objectives for bond release which will adequately demonstrate whether pollution of surface and subsurface water might occur. The operator should provide a method for monitoring well protection during regrading. The operator should provide an additional monitoring point at the inlet of the impoundments during the reclamation period. The operator should consider the addition of perforated PVC pipe for specific monitoring of water within the slurry cells.

R645-301-731.300. Acid- and Toxic-forming Materials.

1. *The Permittee should identify dates, sampling locations, laboratories, and methods of analysis. Reference can be made to original data if they are in the Appendices, but enough information should be included within this section to confirm the applicability of the summaries, averages, etc. to the requirements of the MRP.*
2. *Include information on toxic materials in the fine refuse materials. Discuss how the Operator will avoid drainage of toxics into surface water and groundwater.*

Response:

1. A sampling history and summary has been added to section 2.22. The only available data for table 7.28.5 appears to be page E-2 and E-3 in appendix E. Attached pages 6 & 7 replace 6 through 9 in section 7.31 dated 3/26/93. The MRP states that no acid- or toxic-forming materials have been identified at the Wellington plant.

2. All available information on toxic materials in the fine refuse is presented on Table 7.28 .6 and in Appendix E. Attached section 7.31 pates 6 & 7 replace pages 6 through 9 3/26/93.

Analysis:

1. The operator has not updated section 7.31.3 to include the pertinent information from the available data in Appendix B as part of the PHC summary. Those results indicate a toxic amount of Boron and Selenium may be present which does not support the conclusion stating that no acid- or toxic-forming materials have been identified. The presented information is not adequate to describe the nature of the materials. Further analyses are needed to characterize the materials.

2. Section 2.24 states coarse slurry will be placed in some areas to be reclaimed. These areas must be identified to provide information should the potential of toxic and acid forming materials be presented. The Operator states indications of high boron, selenium, salinity and other detrimental conditions possibly exist in the fines page 2 of Appendix B, this information should be included in the PHC.

   The Operator references Appendix E. Pages E-2 (date is not legible), E-7 dated 6/19/85, and E-3 dated 11/2/83. One sample is provided for acid-toxic forming materials which does not account for variability. The analysis do not indicate where the samples were collected or what methodology is used.

   The operator dug between 5 test pits in the coarse refuse pile to complete a toxicity test some time prior to the November 24, 1992 inspection (see: inspection report and notes). The piles were approximately 15' deep. My notes discuss visual observation including banding of Iron and salt precipitates .

   Some time prior to a November 13, 1991 inspection the operator obtained several samples to characterize the slurry cells. In my conversations with employees I understood that approximately 21 samples were obtained in the slurry cells for characterization. I was informed that water was present at 8 ft depth from the surface to 20 ft where the fines were mostly saturated. No discussion or inclusion of the test results from either sampling plans have been submitted to date.

Deficiencies:

1. The operator must include the sampling information in Appendix B within the context of the PHC. High levels of boron and selenium are shown to be present in some samples. The operator must provide an adequate demonstration and characterization that the materials in the course and fine coal refuse impoundments is not acid and toxic forming.

2. Include information on toxic materials in the fine refuse materials. Discuss how the Operator will avoid drainage of toxics into surface water and groundwater.

R645-301-731.612. Permanent stream channel diversion.

1. *The Operator should recognize the "so-called" Permanent diversion as well as the Siaperas ditch as permanent intermittent stream channel diversions and address and applicable portions of this regulation.*

Response:

1. Section 731.600 is changed to read " No temporary or permanent price river channel diversions are planned. The Siaperas Ditch and Permanent Diversion are permanent intermittent stream channel diversions. See discussions 742.320.

Analysis:

1. The Operator is considered to have clarified the nature of the proposed permanent drainages and the description under this section at this time. Further review of other applicable portions of the regulation was not reviewed at this time.

Deficiencies:

No deficiencies are recognized at this time.

R645-301-731.710. A map showing the locations of water supply intakes
March 26, 1993

Previous Identified Deficiency:

1. Provide a map that clearly labels and identifies all water supply intakes including the Track Hopper.

Response:

1. The track hopper is shown on Drawing E9-3341 along with other supply intakes and facilities. Water supply intakes are shown on Drawing E9-3430.

Analysis:

1. The Operator indicates the track hopper is shown on Drawing E9-3341 along with other supply intakes and facilities. It should be noted that these areas are not identified on the drawing as water supply intakes. The first sentence of 731.700 has been changed to read "The water supply intake from the Price River to the River Pump house is shown on Drawing E9-3430". The track hopper is not shown on this

map.

Deficiencies:

1. Provide a map that clearly labels and identifies all water supply intakes including the Track Hopper.

R645-301-731.720. Locations of each water diversion, collection, conveyance, treatment, storage and discharge facility to be used.

1. Include the sewage plant and maps or references to maps showing all underground pipe lines and water conveyances used.

Response:

1. No response to this deficiency could be located.

Analysis:

1. According to the PHC, Section 7.28 page 1, the Operator had a sewage treatment plant constructed at the north west corner of the property in 1986. Drawing E9-3341 should include all points of conveyance including underground pipelines. Although some of the other water facilities to be used such as water pipes connected to the main office may be located on other maps, the maps are not referenced in this section.

Deficiencies:

1. Include the sewage plant and maps or references to maps showing all underground pipe lines and water conveyances used.

R645-301-731.750. Cross-sections.
Response to this deficiency was not addressed.

1. For impoundments without current cross-sections matching the existing conditions at the site the Operator will provide new cross-sections using current information and estimate the sediment retained in the ponds from earlier pond design information.

2. Provide certified maps for E9-3460, D5-0163, A9-1464.

Response:

1. The response to this deficiency could not be located.

2. Certified maps were provided for E9-3460, D-50163, and A9-1454

Analysis:

a. Sheet (map) 712A shows the minimum elevation on the lower refuse basin dike at an elevation of 53 ft. (Changes pertaining to this map could not be located).
b. A certification was not included for the new hydrology designs submitted in response to the deficiencies.
c. Drawing C9-1285 states no cross-section is available. The Operator must provide a cross-section for this pond.
d. Drawing E9-3453, is out dated because it does not match current elevations indicated on Sheet 712e.
e. Drawing E9-3460 only provides a cross-section of the lower refuse pond dike and does not provide cross-sections of the clear water pond.
f. No typical cross-section is provided in the identified maps for the refuse dike between the upper and lower basin.

Deficiencies:

1. For impoundments without current cross-sections matching the existing conditions at the site the Operator will provide new cross-sections using current information and correcting the following:
   a. Sheet (map) 712A shows the minimum elevation on the lower refuse basin dike at an elevation of 53 ft. This does not correspond to newly presented information.
   b. A certification was not included for the new hydrology designs submitted in response to the deficiencies.
   c. Drawing C9-1285 states no cross-section is available. The Operator must provide a cross-section for this pond.
   d. Drawing E9-3453, is out dated because it does not provide current information as indicated on Sheet 712e.
   e. Drawing E9-3460 only provides a cross-section of the lower refuse pond dike and does not provide cross-sections of the clear water pond.
   f. No typical cross-section is provided in the identified maps for the refuse dike between the upper and lower basin.

R645-301-733. Impoundments.
March 27, 1993

1. Provide the MSHA with proposed design changes and submitted copies to the Division.

2. *Correct text to indicate all impoundments will be maintained as required by R645-301-733.210.*

Response:

1. The proposed decant changes to the Lower Refuse Basin will be submitted to MSHA and Copied to DOGM. The proposed decant changes to the Lower Refuse Basin are the only proposed changes to the ponds meeting MSHA requirements.

2. The second paragraph of R645-301-733.210 has been deleted and the following sentence substituted in it's place: Each of the impoundments will be maintained as required by the referenced sections in R614-301-733.210 of the regulations (Section 7.33 p.4.).

Analysis:

1. The operators response is considered adequate at this time.

2. See : R645-301-713

Deficiencies:

None.

R645-301-738. Temporary Casing and Sealing of Wells.
March 27, 1993

1. Provide a description on how the Operator is meeting this requirement.

Proposal:

1. All monitoring wells are constructed to prevent the introduction of surface contaminants. All casings extend vertically above the ground surface and are installed with caps without locking devices. The track hopper water is stagnant and contained within the structure with little potential for discharge except for evaporation. Little potential for contamination into the facility or groundwater exists.

Analysis:

1. Prudent design of monitoring wells includes the placement of a locking cap.

Deficiencies:

1. Provide locking water tight caps for monitoring wells.

R645-301-742. Sediment Control Measures.
March 27, 1993

1. *The discussion of ASCA's should be moved to a section on Sediment Control measures.*

2. *Address the known problems with sediment control measures along the Siaperas ditch in ASCA #7. Provide a new alternative measure for sediment control at ASCA #7.*

3. *Provide a design diagram for standard installation procedure for silt fences and straw bales.*

4. *Summarize the total Alternate Sediment Control areas and the ASCA as a percentage of the total disturbed areas.*

Response:

1. Information on ASCA's was moved to section 7.52 Sediment Control Measures.

2. Because the silt fence is currently functioning as intended no new sediment treatment is proposed. If, in the future, sediments bypass the silt fence, these areas will be bedded with straw bales and straw bales will be used upstream.

3. A typical installation guide for silt fence and straw bails is provided.

4. A summary of the total ASC areas is presented in section 7.52 page 3/26/93 and is about 29% of the total disturbed site within the permit area.

Analysis:

1. The Operator has placed the information for alternate sediment control areas under section 7.52 Sediment Control Measures.

2. The operator indicates the silt fence is currently functioning. The past years of inspection noted problems of piping under the silt fence along the Siaperas drainage ditch at ASCA #7. The Operator must provide for another alternate sediment control measure at this area as the present silt fences are known to be unsuccessful at this location during some rain events.

3. The Operator has provided a standard for installation procedures for the silt fence and straw bales and summarized the total area and the percentage of total disturbed areas included as ASCA's. The area ASCA #1 is larger than is normally accepted for ASCA however, the operator will be placing a pond in the area below the ASCA and the area will then be treated by the pond.

4. A summary of the total ASCA's is presented in Section 7.52 and is about 29% of the total disturbed area within the permit boundary. This percentage will decrease when ASCA #1 is routed to the new pond.

Remaining Deficiencies:

2. Provide alternative measures for sediment control at ASCA #7.

R645-301-742.300. Diversions.
June 25, 1993

Previously Identified Deficiency:

1. *Provide the erosion control design according to the required design event, and provide protection according to that design.*

2. *Provide designs for the spreader at the downstream end of UD-1A.*

3. *Provide a discussion in the text of the MRP for Ditches located at the Slurry Pipeline Sediment Pond.*

Response:

1. The permanent Diversion was constructed approximately 10 years ago. It was designed to have a 10 ft bottom width 1.5H : 1V side slope and 4 inch riprap base. A two foot deep head cut has formed at the head of a pool (see figure in hydrologic appendix). A grouted rock grade control structure is proposed for stabilization of the head cut. Attached Section 7.42 pages 6, 7 and 8 and computations for watershed #10 are provided for Volume II.

2. Hydraulic analysis reveals that the riprap spreader at the end of the ditch is not needed. Reference to the spreader should be removed from Section 7.42 page 6.

3. The ditches located at the Pipeline Slurry Pond were analyzed and submitted in Volume II Hydrologic Watershed #8. The steepest section has a design velocity of about 5.2 fps. This section has historically experienced erosion. Some maintenance measures have been taken to stabilize these channel, these measures may have been

successful.

Analysis:

1. Attached Section 7.42 pages 6, 7 and 8 and computations for watershed #10 are provided for Volume II. The grouted grade control structure proposed for stabilization of the head cut is not considered the most prudent design. The reason for the head cut is probably due to decreasing the base elevation of the stream through re-routing. It may be more prudent and long lasting to provide a series of pools created by check dams upstream of the head cut rather than the proposed approach as, grouted riprap does not last as permanent structures.

   Attached Section 7.42 pages 6, 7 and 8 and computations for watershed #10 are provided for Volume II. The computations attached provide an analysis of the Hydrologic Soil Group. According to the SCS Soil Survey of the Carbon Area the soil hydrologic group used is in error for reach area A and B. Reach A is comprised of soil # 58 in the hydrologic group B. Reach B is comprised of Soil #35 is a Gerst Badland Complex which is predominately hydrologic group D and is composed of Stormett soil of Hydrologic type B. However the unit is described to be composed of only 15 % of the Stormett map unit. The operator does not appear to have used the correct hydrologic group for these soil units.

2. The reference to UD-1A spreader at the downstream end of the ditch is not located on the submitted page and is assumed to be removed from the plan.

3. The operator has not provided stable designs for the Pipeline Slurry Sediment Pond. Observations on site visits have been noted indicating some areas of the ditch with a lower grade fill with upstream sediments decreasing capacity. The operator has not provided for stable designs in this area. The operator sites a velocity of 5 fps to be erosive however in this soil the erosive velocity may be closer to 3 according to Barfield and Waner and Haan).

Deficiencies:

1. The operator must use a design appropriate for long term stability. The use of grouted riprap is not considered durable for a permanent structure. It is strongly recommended the operator consider using a series of pools and grade structures rather than the proposed grouted riprap.

2. None.

3. Provide for stable designs of drainages in the area of the Pipeline Slurry Sediment

Pond.

R645-301-744. Discharge Structures.

1. *Provide emergency spillway designs including cross-sections of the emergency spillway, discharge to a water conveyance and erosion control measures or demonstrate the requirements of R645-301-742.225 can be met.*

Response:

1. The road Pond and Auxillary Pond should have a combination spillway that will safely discharge a 25 year 6 hour event. The analysis demonstrates the earth lined emergency spillway for the Road and Auxillary pond have non-eroding velocities even if the primary spillways are plugged. Section 7.42 page 5, Section 7.44 and Watershed No. 4 computations, as well as, the attached spillway computations are provided.

Analysis:

1. The operator discusses and includes designs for the primary spillways. However, the operator did not include the designs and design values used to arrive at the peak flow. The designed emergency spillway will spill out the south end of the Road Pond. The control point is set by the road elevation. The emergency spillway is assumed to occur over the south part of the Auxiliary Pond. Although the operators proposed analysis is not a conventional design, it indicates the velocity across the site in a flood event is not expected to be of a significant nature to cause damage due to the design of the pond. The operator should provide a reference location for the cross section provided for the Road Pond and Auxiliary Pond emergency spillways. The operator should include cleanout and sediment volummes on the Pond Stage Capacity Curves.

Deficiencies:

1. The operator should provide a reference location for the cross section provided for the Road Pond and Auxiliary Pond emergency spillways. The operator should include cleanout and sediment volummes on the Pond Stage Capacity Curves and include the designs and design values used to arrive at the peak flow.

R645-301-745. Excess Spoil.
March 26, 1993

Deficiencies:

1. *Clarify the discrepancy between the map and text descriptions (regarding excess spoil).*

Response:

1. The Operator removed the identification of spoil piles from Map E9-3341 (rev 2).

Analysis:

1. The operator has removed the spoil identification on Map E9-3341.

Deficiency:

None.

R645-301-746. Coal Mine Waste.

1. *Correctly reflect activities of handling Coal Mine Waste at the Wellington site.*
2. *Clarify the handling procedures acid and toxic testing and location for storage of this waste.*

Response:

1. The handling procedures have been clarified in Section 5.28, page 5-6. In Section 7.46 the Operator indicates coal mine waste has been placed in a controlled manner. In Section 5.13, page 1, the Operator states underground development waste, coal processing waste and excess spoil are not developed at the site. The Operator includes the Temporary Rock and Coal Waste Storage area as one time 600 cys. (Section 5.28 page 5). On page 6, the Operator says CVR has a proposed site for Genwal sediment pond waste material as a permanent storage for life of mine 10,000 cys.

Analysis:

1. In Section 5.13, page 1, the Operator states underground development waste, coal processing waste and excess spoil are not developed at the site. The Operator has recently received an estimated total of 1,100 cubic yards from Genwal mine according

to the inspection on 8/19/92. The operator is also approved for permanent storage of the Genwal mine sediment pond cleanout material. It is estimated that a life of mine storage of 10,000 cys is necessary. Testing of this material is discussed.

Deficiencies:

None.

R645-301-746.200. Refuse Piles.
December 10 submittal

1. *The Operator should acknowledged that there are 2 refuse piles on page 2, of Section 7.28.*

2. *Map the extent of the coarse refuse pile.*

3. *Provide drainage of run off from the refuse pile and drainage surrounding the refuse pile. Detailed drainage ditch designs must be based on the runoff calculation for a 100-year 6-hour event per R645-301-746-212.*

4. *Provide construction and engineering details. Address ponding and grading on the surface of the refuse pile.*

5. *Submit information gathered from MSHA, which is pertinent to the construction of the Pond Refuse Pile, to the Division.*

6. *Provide a commitment to include a discussion of dates waste materials are received and volummes received to be included in the inspection report. Address R645-301-528 for handling the waste approved to be received from Genwal.*

Response:

1. There is one permanent refuse pile and one temporary refuse pile. The temporary pond coarse slurry refuse pile had been identified on map E9-3341. Section 7.28 page 2 is provided.

2. The temporary pond coarse slurry refuse pile had been identified on map E9-3341. The Operator has not included information on the maps outlining the area of the course slurry refuse pile.

3. Drainage control designs for the course refuse pile is provided in Volume II

Hydrologic Appendix for Ditch UD-1A and runoff from the surface is included in watershed No. 5. Drainage is tributary to the refuse basin.

4. As-built specification designs, approval letters and other information for coal refuse piles and impoundments was added to Hydrologic Appendix in June 1993. The plant refuse pile was started in March 1958 and consists of 1/4 inch mine reject from a heavy media plan. There is about 230 feet on the south west side and about 230 feet on the north east side with side slopes between 1.3 horizontal to 1 vertical. Those areas with slopes steeper than 2:1 will be regraded.

5. Available pertinent information was added to the Hydrologic Appendix in June 1993. No further information was produced through MSHA files.

6. The operator commits to include dates waste materials are received and volummes received in the inspection reports. Reference R645-301528 is added. Page 1 of Section 7.46 is included.

Analysis:

1. The text refers to the temporary slurry pond course refuse pile on page 2, Section 7.28.

2. The location of the course refuse pile is identified and cross hatched to identify the extent of the course refuse pile on Exhibit E9-3341.

3. The information discussed in the context of the response discussion is located on Section 7.46, page 1. Information regarding drainage from the face of the pile and directly above the temporary course refuse basin pile was not found in the text of the MRP document.

4. The information added in the appendix provides useful information. The grading of the pile is included in text on Section 7.46, page 1 for the plant refuse pile. Information regarding surface grading and ponding on the temporary course refuse basin was not found in the text of the MRP document.

5. Available pertinent information was added to the Hydrologic Appendix.

6. The operator commits to provide dates waste materials and volume of materials received in the inspection reports. Reference to Section R645-301-528 does not include text committing to provide the dates, for waste materials received, in the inspection reports.

Deficiencies:

3. Provide information and designs regarding drainage from the face of the pile and directly above the temporary course refuse basin pile for incorporation into the text of the MRP document.

4. Provide information regarding surface grading design and prevention of ponding on the temporary course refuse basin pile for insertion to the MRP document.

6. Include text committing to provide dates waste materials are received within the inspection reports as referred to in the response memo in Section R645-301-528.

R645-301-746.311. Coal Mine Waste impounding structure

1. *Provide design information that addresses R645-301-746.311 for the fine slurry cells.*

2. *If the Operator is intending to retain the road and heat dryer pond, as permanent structures, address R645-301-733.220 and other applicable regulations or, provide clarification of pond removal in the text of the MRP.*

Proposal:

1. The upper and lower refuse dikes will be graded even with the surface of the refuse basin. The North dike which is not constructed of refuse will continue to provide protection from run on from the Siaperas ditch after final reclamation. Section 5.40

2. The Road Pond and Heat dryer Pond will not be maintained as permanent. The heat dryer pond will be maintained until revegetation of the plant area is successful and, then the outlet works will be removed. Attached Section 7.46, page 3 and Section 5.40 are included.

Analysis:

1. Section 746.311 states no impounding structures will be maintained after final reclamation. R645-301-746.311 specifically states "Such structures may not be **retained** permanently as part of the approved postmining land use." The operator should correct the typo found in this description. The Operator proposes that the dikes will be left in place permanently. The final reclamation map legend states it shows the 5' contour elevations but they are not shown. No indication of surface drainage across the lower refuse pond is evident thus allowing potential of ponding in the lower impoundments. In order to meet this regulation requirement the Operator

must have a free draining structure. The operator does not provide for a free draining (non-impounding) structure for this proposal.

2. The operator indicates the Road pond and Auxiliary pond will be graded to final contours while, the Dryer pond will be maintained until vegetation is established in Section 5.40. The removal of the Plant sediment pond should be in the reclamation time table.

Deficiency:

1. The operator should correct the typo that no impounding structures should be **maintained** after final reclamation. The operator must provide for a non-impounding free draining structure.

2. Include the reclamation of the Plant sediment pond within the reclamation time table.

R645-301-747. Noncoal Mine Waste.
Response December 10, 1993

1. *Provide a description of areas where all types of waste are stored prior to removal to the appropriate disposal facility.*

2. *Expand discussion to include all Non-coal waste storage sites, and reference text where noncoal waste is discussed further.*

Response:

1. There are presently no-non coal waste storage sties except for small amounts of garbage hauled to the County Land fill.

2. Map E9-3341 is amended to rename area EE. Section 7.47 is provided.

Analysis:

1. This issue is considered adequately addressed. Other portions of the plan were not reviewed for this information.

2. See R645-301-120 #10.

Deficiencies:

None.

R645-301-760. Reclamation.
Response December 10. 1993

1. *The Operator must submit a plan for reclamation with information based on currently approved actions, and current conditions at the site.*

2. *The Operator must further address the R645-301-760 with complete drainage plans and sediment treatment for the site and all phased reclamation including final grading.*

3. *Provide a map of adequate scale to determine the details of grading and reclamation drainage.*

4. *Remove the reference limiting rill and gully repair to anything greater than 9".*

Proposal:

1. Drawing E9-3342 has been revised to reflect reclamation with currently approved actions and current conditions.

2. Proposed drainage plans and sediment treatment for reclamation are shown on the revised E9-3342 and described in section 7.60.

3. Drawing E9-3342 has been revised and details have been added.

4. References to limiting rill and gully repair to anything greater than 9" is removed. Revegetation success standards are discussed in the Section 3.41.

Analysis:

1. The operator has incorporated current site conditions in the proposed reclamation plan.

2. No drainage plan is provided. It is not clear how the water will reach the clear water pond during interim or how drainage will reach the price river at final reclamation. The operator has not provided information on the sediment control measures and final contouring of the proposed borrow areas. No disturbed area boundary is located on the proposed reclamation map. No Sediment control measures are provided for areas to be reclaimed which do not report to sediment ponds.

   The operator provides a plan for grading of the sediment pond dike on exhibit E9-3342. However, this design sends drainage toward the railroad. This design does not

provide for the protection of downstream structures. It is unclear where the drainage is coming from or what the design flow is. The Auxiliary pond will be filled and blended with surrounding areas.

3. The operator does not provide adequate contour information across the refuse basin to determine slope or drainage.

4. The operators revegetation plan does not include a criteria for demonstrating that adequate erosion control is met in regard to bond release. The operator should incorporate this type of criteria into the plan.

Deficiencies:

1. None.

2. The operator must provide a Reclamation drainage plan at the slurry impoundments. A drainage plan needs to be developed for the area draining to the sediment pond on exhibit E9-3342. The designs should provide for the protection of downstream structures at the Preparation plant sediment pond. The operator must provide information on the sediment control measures and final contouring of the proposed borrow areas and include the disturbed area boundary on the proposed reclamation map.

3. The operator must provide adequate contour information across the refuse basin which is adequate to determine slope and drainage.

4. The operators revegetation plan should include a criteria for demonstrating that adequate erosion control is met in regard to bond release. The operator should incorporate this type of criteria into the plan.

R645-301-738. Temporary Casing and Sealing of Wells.
R645-301-748. Casing and Sealing of Wells.
R645-301-765. Permanent Casing and Sealing of Wells.
March 26, 1993

1. *The Permittee needs to make a commitment on permanent casing and sealing of wells in Section 7.65, and correct the description for closure of the pump house well.*

Response:

1. A commitment has been added for permanently sealed wells to Section 7.65. Closure does not prohibit the use of backfield material for shallow well closure. The

permittee reserves the right to use fill or cement grout.

Analysis:

1. The operator commits to fill wells with clean surface materials or cement grout.

Deficiencies:

None.

RECOMMENDATION

Many original deficiencies remain within the operators plan. The Division may wish to focus the operators attention on the larger problems such as the facilities map, reclamation plan, and characterization of the course and fine refuse materials. Although the operators monitoring plan is partly addressed the operator has retained conflicting statements. Deficiencies in the monitoring plan should be addressed within a reasonable time period so that the operator may begin collecting data according to the current monitoring requirements.

The operator has presented information to be used by the Division to determine whether an AVF exists in the permit area. The existing permit states that Coal Processing Plants not located at or near the mine site or within the permit area for a mine are not required to investigate the presence of AVF's (UMC 785.19, UMC 827). The current regulations R645-302-320 applies to any person who conducts or intends to conduct coal mining and reclamation operations on areas or adjacent to areas designated as alluvial valley floors. Coal mining and reclamation operations include preparation plants. The Division should make a determination on the basis of the presented information to be included in the permit findings.

The operator has proposed changes to pond designs increasing the spillway height on the Road Pond and constructing a new Dryer sediment pond. Other agencies should be provided with a copy of the plan to review the proposed changes if, they haven't already been notified.