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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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January 14, 1993

Mr. Tom Paluso
Soldier Creek Coal Company
P. O. Box I
Price, Utah 84501

Dear Mr. Paluso:

Re: SC3 and Division Meeting January 8, 1993, Soldier Creek Coal Company, Soldier Canyon Mine, ACT/007/018, Folder #2, Carbon County, Utah

A meeting was held on January 8, 1993 between you and Dave Spillman of SC3, Tom Suscoski of Earthfax, Jim Smith and myself of DOGM. The intent of the meeting was to clarify questions arising from deficiencies identified in the November 25, 1992, D.O. 92A response.

The **main** issues clarified are summarized below. These issues do not replace the original deficiencies.

1. **R645-301-722 and 731 #1**

The water rights from the Anderson Reservoir to the Price River will be re-addressed during the waste rock site review.

R645-301-722 and 731 #2, and R645-301-730 #4

Clarify what information the existing water monitoring wells provide for PHC determination. Discuss how each water bearing unit above and below the coal to be mined is adequately monitored. Discuss how the completion of the wells within different water bearing units of the formation are affected by mining and, provide clarification of the information provided by piezometric maps submitted to date.

2. **R645-301-742**

Provide a discussion summarizing seasonal use and seasonal quantity. The seasonal quantity would include analysis of seasonal baseline flows. Current operational flows may also provide useful information.

3. **R645-301-728**

Provide a commitment to monitor Spring 7 both prior to and during the period where the spring is most likely to be affected by longwall (subsidence) mining.

4. **R645-301-728**

Provide a discussion on the PHC of flooding and sediment loading downstream of the mine. A discussion of resources/land uses and utilities that exist downstream were not identified during the meeting but should be included in the discussion. Probability analysis of an event larger than the design event(s) should also be addressed.

5. **R645-301-731.200**

The operator should justify the proposed in-mine monitoring plan. A new monitoring method discussed included using mapping and commentary to describe in-mine flows, with water quality sampling for the larger significant flows.

6. **R645-301-731.220**

The operator should include a 5 year analysis for the extended baseline list. (Current DOGM baseline list is enclosed.) Include clarification of Banning Loadout coal analysis, and the relation of constituents that are, or are not, likely to exist at the site. Geologic presence or absence of elements in the strata may also be used to justify sampling parameters.

Regarding Map E064, Exhibit 7.32-1, new information was included on the map not previously approved in the expansion review. This issue was addressed in the technical deficiency memo summary but was not carried forward into the permit renewal. SC3 has asked for an extension and expects to complete these deficiencies with D.O. 92A

1. The existing Disturbed Area Boundary and the Limits of Disturbance identified for reclamation must be clarified. If the Disturbed Area Boundary varies from that identified in the approved pond and drainage designs, the operator will need to re-analyze the disturbed area hydrology for the additional disturbance.

2. The operator must provide labels for drainage designs and corresponding

culverts, ditches, and berms. Labels must be present on maps.

3. The west end of watershed 7 shows an asphalt berm or ditch. The operator must clarify which design exists on the site and provide a label. Identify where this design calculation is located in the plan.

4. All watersheds do not match previously identified watersheds used in approved hydrologic design reviews. Make watersheds consistent throughout the plan.

5. Clearly identify each drainage design change that varies from the approved road expansion design in the cover letter attached to the D.O. 92A response submittal.

Sincerely,

Sharon K Falvey

Sharon K. Falvey
Reclamation Hydrologist

cc: D. Haddock
J. Smith
D. Spillman, SC3
T. Suscoski, Earthfax

SC3M193.MEM

Note: this Baseline Parameter list is not fully adopted by the Division at this time, however, if SCS would like to use this list rather than the previous guide line, it would be acceptable during the interim (until the Division adopts some new version)

BASELINE WATER QUALITY PARAMETER LIST 1/14/93

OLD SURFACE WATER BASELINE	NEW SURFACE WATER BASELINE
Ammonnia (NH3)	Ammonnia (NH3)
Alkalinity (Carbonate)	Alkalinity (Carbonate)
Alkalinity (Bicarbonate)	Alkalinity (Bicarbonate)
Alkalinity (Total)	Alkalinity (Total)
Aluminium Total	Aluminium Total
Aluminium Dissolved	
Arsenic Total	Arsenic Total
Arsenic Dissolved	
Barium Total	
Barium Dissolved	
Boron Total	Boron Total
Boron Dissolved	
Cadmium Total	Cadmium Total
Cadmium Dissolved	
Calcium	Calcium
Chloride	Chloride
Chromium Total	
Chromium Dissolved	
	Conductance (Specific)
Copper Total	Copper Total
Copper Dissolved	
Flouride	
Total Hardness	Total Hardness
Iron Total	Iron Total
Iron Dissolved	Iron Dissolved
Lead Total	Lead Total
Lead Dissolved	
Magnesium	Magnesium
Manganese Total	Manganese Total
Manganese Dissolved	Manganese Dissolved
Molybdenum Total	Molybdenum Total
Molybdenum Dissolved	
Nickel Total	
Nickel Dissolved	
Nitrate	Nitrate
Nitrite	Nitrite
Oil & Grease	Oil & Grease
pH	pH
Phosphate (Ortho)	Phosphate (Ortho)
Potassium	Potassium
Selenium Total	Selenium Total
Selenium Dissolved	
Sodium	Sodium
Sulfate	Sulfate
Sulfide	
Total Dissolved Solids	Total Dissolved Solids
Total Settleable Solids	Total Settleable Solids
Total Suspended Solid	Total Suspended Solids
Zinc Total	Zinc Total
Zinc Dissolved	
Cation/Anion Balance	Cation/Anion Balance

OLD GROUNDWATER BASELINE	NEW GROUNDWATER BASELINE
Ammonnia (NH3)	Ammonnia (NH3)
Alkalinity (Carbonate)	Alkalinity (Carbonate)
Alkalinity (Bicarbonate)	Alkalinity (Bicarbonate)
Alkalinity (Total)	Alkalinity (Total)
Aluminium Dissolved	Aluminium Dissolved
Arsenic Dissolved	Arsenic Dissolved
Barium Dissolved	
Boron Dissolved	Boron Dissolved
Cadmium Dissolved	Cadmium Dissolved
Calcium	Calcium
Chloride	Chloride
Chromium Dissolved	
	Conductance (Specific)
Copper Dissolved	Copper Dissolved
Flouride	
Total Hardness	Total Hardness
Iron Total	Iron Total
Iron Dissolved	Iron Dissolved
Lead Dissolved	Lead Dissolved
Magnesium	Magnesium
Manganese Total	Manganese Total
Manganese Dissolved	Manganese Dissolved
Molybdenum Dissolve	Molybdenum Dissolved
Nickel Dissolved	
Nitrate	Nitrate
Nitrite	Nitrite
Oil & Grease	Oil & Grease
pH	pH
Phosphate (Ortho)	Phosphate (Ortho)
Potassium	Potassium
Selenium Dissolved	Selenium Dissolved
Sodium	Sodium
Sulfate	Sulfate
Sulfide	
Total Dissolved Solids	Total Dissolved Solids
Zinc Dissolved	Zinc Dissolved
Cation/Anion Balance	Cation/Anion Balance

FIELD PARAMETERS
Flow (Gallon per minute)
Specific Conductivity (umhos/cm)
Temp (H2O)
pH

Total metals will be run for surface water samples.
Dissolved metals will be run on groundwater samples.

On surface waters, total metals will be run due to the influence of suspended sediment on metals concentrations. This includes streams, ponds or mine water discharges.

On groundwater samples, dissolved metals will be run. This includes in mine samples, springs, and wells.