

File Copy



Soldier Creek Coal Company
HIDDEN VALLEY MINE

Telephone 801 - 637-4429

P.O. Box AS
Price, Utah 84501 *

December 21, 1979

Mr. Ronald W. Daniels
Coordinator of Mined Lands
Department of Natural Resources
Division of Oil, Gas, and Mining
1588 West North Temple
Salt Lake City, Utah 84116

Subject: Amendments to Surface Mining and Reclamation Plan
Interim Program - Hidden Valley Mine

Dear Mr. Daniels:

Enclosed you will find amendments to our Surface Mining and Reclamation Plan that was submitted on September 7, 1979. These modifications were made in response to your letter dated October 29, 1979. A copy of this letter is enclosed for your convenience.

Your prompt attention to this matter will be greatly appreciated.

Very truly yours,

HIDDEN VALLEY MINE

A handwritten signature in cursive script that reads "J. T. Paluso".

J. T. Paluso
Project Engineer

JTP:dw
Enclosure



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

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October 29, 1979

Mr. Tom Paluso
Soldier Creek Coal Company
Hidden Valley Mine
P.O. Box AS
Price, Utah 84501

RE: Interim Program Mine Plan
Review of the Hidden Valley Mine.

Dear Tom:

The Division has completed the initial review of the Interim Period Mine Plan submitted for the proposed Hidden Valley Mine. Comments to the submittal and items of additional information or clarification required are listed below:

1. Cover Letter: All contents within the submittal cannot be held as confidential. Only information relating to the size, nature or location of the "ore body" can be so held from public information. Please indicate which sections of the report that deal with this information you wish to be held as confidential.
2. Page i: The Division would like to point out, at this time, that the proposed railroad site at Levan appears to be subject to regulation under the permanent program, and when the permanent program comes into effect, a permit application would be required for the site.
3. Page i: If the need for discharge of preparation plant water should arise, how will the discharge be contained, and if discharged be treated?

4. Page 2-2: Specifically, what flow measure techniques and equipment will be utilized? What lab will be contracted to perform the water analysis? Please indicate on a map all surface and groundwater monitoring stations. Concerning the ponds, details for the decant systems are required. Also, seepage collars are required on pipes passing through embankments and oil skimmers are required on the primary discharge mechanics.
5. Page 4-11: As no primary discharge system is shown for the portal area pond, a pump capable of decanting the treated water will be required to be available.
6. Pages 4-7 & 4-15: Cross-sections for the surface facility sedimentation pond embankment and the refuse pile sedimentation pond embankment do not show Keyway cuts at the foundation interface. These will be required.
7. Page 5-2: Refuse disposal. A. What thickness of surficial material will be removed prior to depositing refuse material? B. When will the surficial material be stockpiled and how will it be stabilized? C. What is the slope of the presently existing ground surface in the refuse area? D. What will the surface configuration of the refuse pile be and in what sequence will refuse be deposited? E. What procedures will be used to compact the refuse material and what is its contemplated static safety factor? F. Segregation, stockpiling, and protection of topsoil, or surficial material, will be required in all areas to be disturbed, unless it can be adequately demonstrated that an insufficient amount of material exists making it impractical to do so or analysis shows that the material can not be used as a medium for revegetation. Please submit a map showing locations of all topsoil stockpiles and specific measures to be taken for protection of the stockpiles. Using available topsoil as fill material and covering with asphalt is not an acceptable means of stockpiling and protection. Several soil samples should be collected and analyzed from each area to be disturbed to obtain an adequate representation of the soils existing in that area. Subsurface soils, where they exist, should also be analyzed to determine their potential for revegetation.
- 8. Page 5-3: Revegetation - A. The seed mix proposed for use does not include any shrubs or half shrubs referred to in Appendix #6. B. Supplemental watering, mulch and fertilizer treatments are not mentioned as a possibility to achieve revegetation success. C. Amounts of seed to be used should be increased to 20 pounds per acre. D. Thickness of surficial material to be stockpiled and respread is not indicated. E. Disturbed areas not directly required for mining such as sediment pond embankments, diversions cut in unconsolidated material, and outslopes of permanent fill slopes must be revegetated as soon as possible.

Mr. Tom Paluso
October 29, 1979
Page Three

9. Page 6-1: The Division cannot approve the project without a mining plan. The mining plan affects the development of a subsidence monitoring plan and the groundwater monitoring plan. In addition, surface effects of underground mining may require certain areas to be left supported. The Division will require a subsidence monitoring program for this project.
10. Appendix A: Topographic detail on this appendix is very poor, more detail on this area is needed. Supplying a mylar or other reproducible and transparent print would be helpful.
11. Appendix B: Specifications on diversions are required, ie., profile and dimensions. As shown on the map, drainage from part of the raw coal pile does not flow into a sediment pond. This must be corrected.
12. General comments:
 - A. More information is required showing final proposed reclaimed land configuration and proposed postmining land use.
 - B. A commitment to have sediment ponds operational prior to major disturbance and prior to coal production is needed.
 - C. All proposed topsoil stockpiles must be shown on a map.
 - D. An archeological survey is recommended prior to site disturbance.
 - E. Please be reminded that the permanent program requires more detailed soils information such as a complete soil survey and soils map. It would be to Soldier Creek Coal Company's benefit to obtain this information prior to disturbing the area.

If you have any questions please feel free to call.

Sincerely,



RONALD W. DANIELS
COORDINATOR OF MINED LAND DEVELOPMENT

cc: John Hardaway,
Office of Surface Mining
Steve McNeil,
Utah State Div. of Health

RWD/te

1. *Cover letter. All contents within the submittal cannot be held as confidential. Only information relating to the size, nature or location of the "ore body" can be so held from public information. Please indicate which sections of the report that deal with this information you wish to be held as confidential.*

Information relating to the size and nature of the minable coal seam was presented in the geology section. This information is considered confidential and should not be released to the public.

2. *The Division would like to point out, at this time, that the proposed railroad site at Levan appears to be subject to the regulations under the permanent program, and when the permanent program comes into effect, a permit application would be required for the site.*

The possible submission of a permit application for the proposed loadout site is hereby acknowledged.

3. *Page i: If the need for discharge of preparation plant water should arise, how will the discharge be contained, and if discharged be treated?*

Preliminary engineering on the preparation plant design has indicated that the plant will be a closed system with no anticipated discharge. However, if the need for discharge should ever arise, it would be directly discharged into the surface facility sedimentation pond. Preliminary design of this pond has called for a total containment volume of 2.93 acre-ft. This is 0.73 acre-ft. in excess of what is required for the design precipitation event and sediment load. This excess volume would be more than adequate containment for any preparation plant discharge.

All water discharged from the sediment pond will be in accordance to the effluent limitations determined by the N.P.D.E.S. permit required for such discharge.

4. *Page 2-2: Specifically, what flow measure techniques and equipment will be utilized?*

Flows along Ivie Creek will be determined by the installation of two standard contracted rectangular weirs. One installation will be near the east property boundary and the other near the west property boundary.

Groundwater flows are determined by the amount of time required for the flow to fill a container of known volume.

What lab will be contracted to perform the water analysis?

Ford Chemical Laboratory, Inc.
40 West Louise Avenue
Salt Lake City, Utah 84115

Please indicate on a map all surface and groundwater monitoring stations.

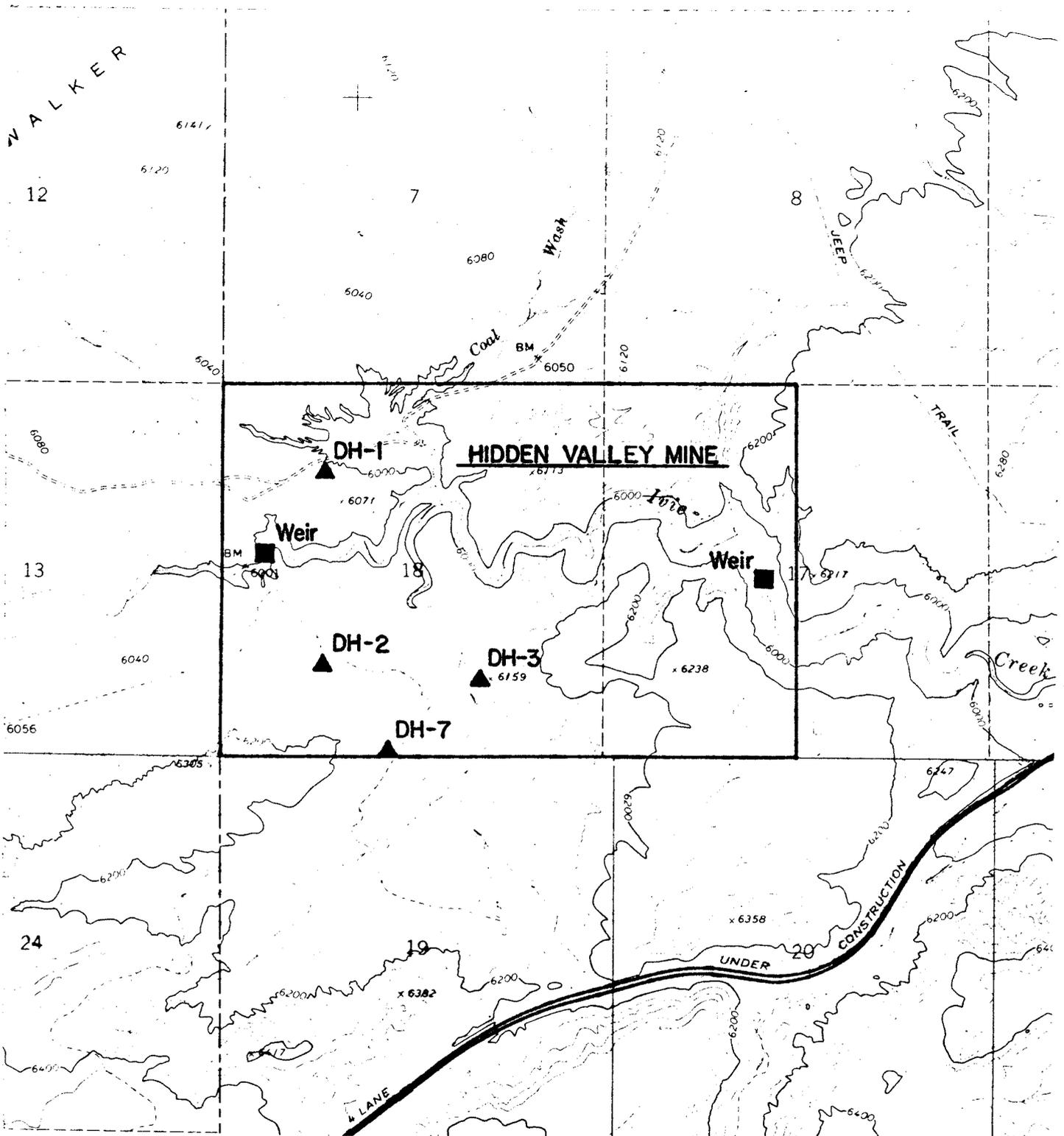
See Figure 1.

Concerning the ponds, details for the decant system are required. Also, seepage collars are required on pipes passing through embankments and oil skimmers are required on the primary discharge mechanics.

Appropriate plans and details will be submitted to the Division, for their approval, prior to the construction of any sedimentation control facilities. These plans will include details on seepage collars, oil skimmers, trash racks, etc.

5. Page 4-11: *As no primary discharge system is shown for the portal area pond, a pump capable of decanting the treated water will be required to be available.*

Preliminary plans call for a pump to be used as the primary decanting system for the portal area sedimentation pond. However, a more conventional decanting system is being considered as an alternative. Upon design completion the appropriate plans and details will be submitted to the Division, for their approval prior to any construction.



- ▲ - Groundwater monitoring station.
- - Proposed surface water monitoring station.

Figure 1. Surface and groundwater monitoring stations.

6. Pages 4-7 & 4-15: Cross-sections for the surface facility sedimentation pond embankment and refuse pile sedimentation pond embankment do not show Keyway cuts at the foundation interface. These will be required.

A typical Keyway design for small dams is shown in Figure 2. The following equation gives the relation used:

$$W = H - D$$

Where W is the bottom width of the trench; H is the reservoir head above the ground surface; and D is the depth of the trench excavation below the ground surface.

The above design will be incorporated into the construction plans for the surface facilities and refuse pile sedimentation dams. However, final design may vary somewhat due to site specific conditions encountered.

7. Page 5-2: Refuse disposal.

A. What thickness of surficial material will be removed prior to depositing refuse material?

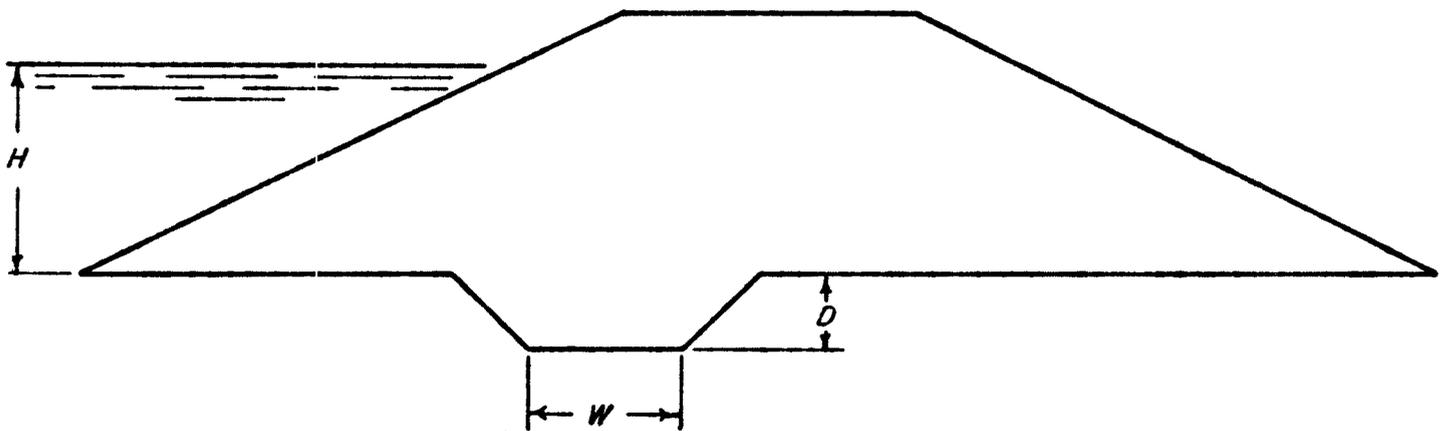
The total amount of surficial material removed will be equal to that amount required for final reclamation. This will provide adequate soil depth for plant growth while minimizing the flow of air and water through the refuse pile. Actual thickness of the material removed will be site specific, varying from 0 to 10 feet.

B. When will the surficial material be stockpiled and how will it be stabilized?

Stockpiling of surficial will commence immediately preceding the actual deposition of any refuse material. The desired stabilization for the stockpiles will be revegetation.

C. What is the slope of the presently existing ground surface in the refuse area?

*Figure 2.
Typical Key Trench or Cutoff Trench Design for
Small Dams*



$W = H - D$

Where:

W = bottom width of trench

H = reservoir head above ground surface

D = depth of trench excavation below ground surface

REVISIONS				Soldier Creek Coal Company	
NO.	DATE	BY		HIDDEN VALLEY MINE	
1.					
3					
SCALE: None			TITLE: Key Trench Design		DRAWING NO. Figure 2
DRAWN BY DGS	DATE 11-8-79	CHECKED	DATE	APPROVED	DATE

The association between the proposed refuse area and the existing slope is as follows:

<u>% of Disposal Area</u>	<u>Terrain</u>	<u>% Grade</u>
50%	Flat	0 - 10%
35%	Low Hills	10 - 25%
15%	Moderately Steep Hills	25 - 60%

D. What will the surface configuration of the refuse pile be and in what sequence will refuse be deposited?

Please refer to Appendix A of the Mining and Reclamation Plan submitted September 7, 1979, for an illustration of the proposed refuse disposal site.

The surface configuration of the proposed refuse pile is as follows: The northern boundary of the refuse pile will begin approximately 450 feet south of the sedimentation dam. The east-west width at this point would be approximately 700 feet, increasing to 1400 feet at the southern boundary. The total north-south length would be approximately 1400 feet. From this boundary refuse will be deposited on a slope not to exceed 1v:2h, and to an elevation of approximately 6150 feet. The maximum height above the existing ground elevations will be 125 feet. Also the surface configuration of the interior of the pile will remain at an elevation of approximately 6150 feet and be generally flat to slightly sloping.

Refuse material will be deposited in a controlled and systematic manner. The refuse pile will be constructed in compacted layers not exceeding 2 feet in thickness and will not have any slope exceeding 1v:2h.

E. What procedures will be used to compact the refuse material and what is its contemplated static safety factor?

Disposal of underground development and coal processing waste will comply with the requirements of the Mine Safety and Health Administration, 30 CFR 77.215. The Technical Support Branch of MSHA has determined that refuse deposited in accordance with these regulations will have a static safety factor which is equal to or greater than 1.5.

F. Segregation, stockpiling, and protection of topsoil, or surficial material, will be required in all areas to be disturbed, unless it can be adequately demonstrated that an insufficient amount of material exists making it impractical to do so or analysis shows that the material can not be used as a medium for revegetation.

Surface facilities

Due to the limited amounts and poor quality of surficial materials in the proposed surface facility area, Hidden Valley Mine reserves the right to use this surficial material for any required use, i.e., construction, fill material, berm, etc. Such usage would be with the understanding that if substantial degradation of the revegetation potential of these soils did occur, Hidden Valley Mine would amend or replace these soils. Final condition of the soils will be either comparable to the original soils or of adequate quality to support the required vegetative growth.

Any soils which are determined by Hidden Valley Mine as being of irreplaceable quality, necessary for the reclamation of temporarily disturbed sites, or excess soils, will be stockpiled in a designated area.

Refuse disposal area

Initially, some stockpiling of the surficial material in the refuse disposal area will be temporarily required. However, as the refuse pile increases in size, additional surficial material removed will be used directly for reclamation of the completed portions of the pile. This would eliminate the need for any further stockpiling.

Please submit a map showing locations of all topsoil stockpiles and specific measures to be taken for protection of the stockpiles.

The proposed stockpile location for the surface facility area is shown in Figure 3. Stockpiles in the refuse disposal area will be very temporary and located where they will best complement reclamation work.

Stabilization and protection of stockpiled soils will be accomplished by establishing an effective vegetative cover. Temporary stockpiles may require little or no stabilization, depending on the amount of time needed before redistribution.

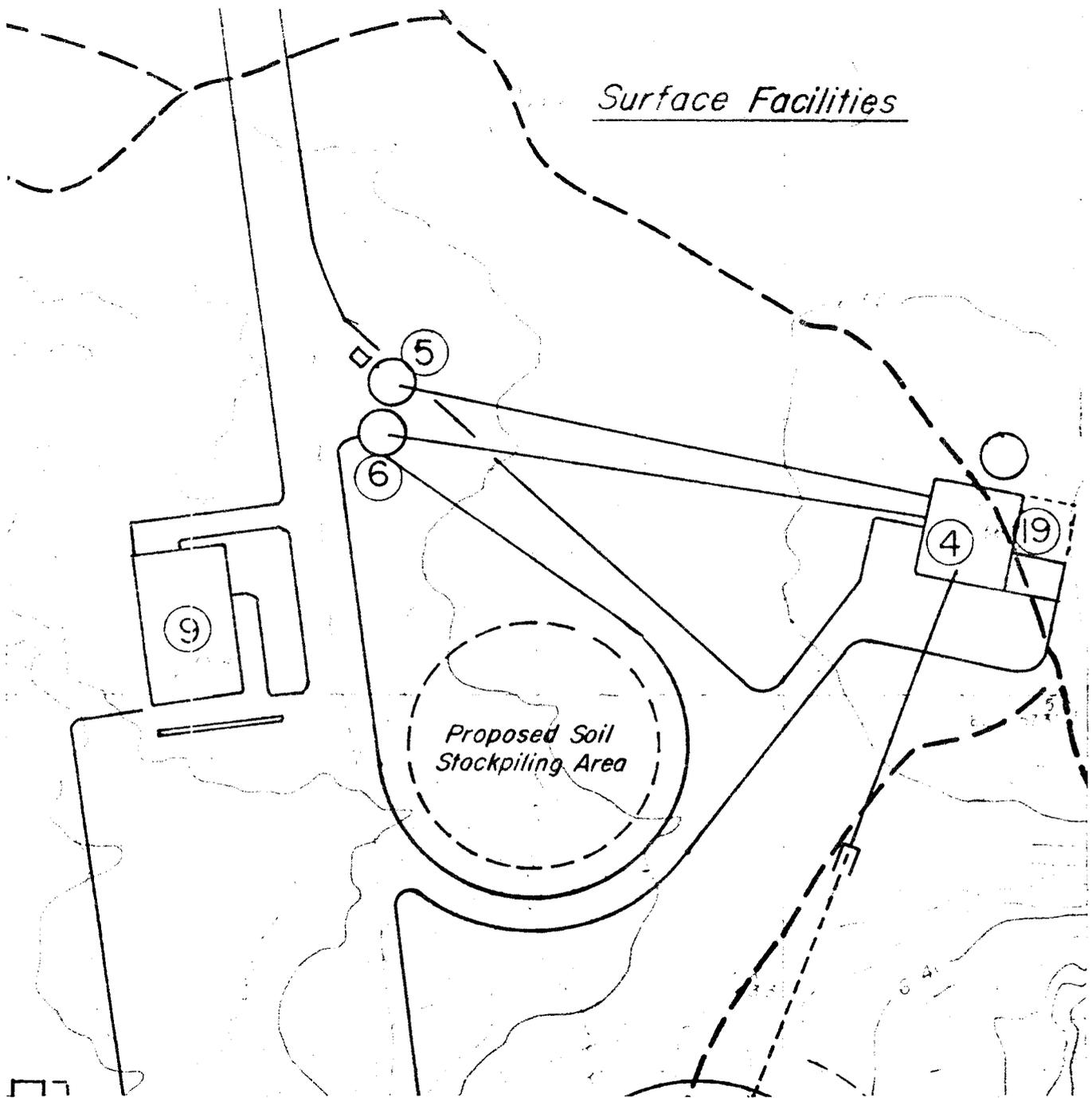


Figure 3. Proposed surface facility soil stockpiling area. Revision of Appendix B of the Mining and Reclamation Plan.

Using available topsoil as fill material and covering with asphalt is not an acceptable means of stockpiling and protection.

The possible revegetation problem resulting from the compaction and sealing of surficial material is hereby acknowledged.

Several soil samples should be collected and analyzed from each area to be disturbed to obtain an adequate representation of the soils existing in that area. Subsurface soils where they exist, should also be analyzed to determine their potential for revegetation.

Several additional soil samples of both surface and subsurface soils have been sent for analysis.

8. Page 5-3: Revegetation.

A. The seed mix proposed for use does not include any shrubs or half shrubs referred to in Appendix #6.

The seed mixture on page 5-3 of the Mining and Reclamation Plan should hereafter be disregarded and the following species and amounts are hereby adopted:

<u>Common name</u>	<u>Scientific name</u>	<u>lbs/acre</u>
Crested wheatgrass	Agropyron cristatum	3
Streambank wheatgrass	Agropyron riparium	3
Russian wildrye	Elymus junceus	3
Indian ricegrass	Oryzopsis hymenoides	2
Alkali sacaton	Sporobolus airoides	1
Fourwing saltbush	Atriplex canescens	2
Nevada ephedra	Ephedra nevadensis	2
Whitesage	Ceratoides lanata	2
Shadscale	Atriplex confertifolia	2
Total		<u>20 lbs/acre</u>

B. Supplemental watering, mulch and fertilizer treatments are not mentioned as a possibility to achieve revegetation success.

Supplemental watering, mulch and fertilizer treatments are all possible methods which can be used to establish the desired revegetation results. However, the use of supplemental water and soil amendments may prove unnecessary if it can be demonstrated that alternative methods will achieve the required vegetative cover and soil stabilization. Hidden Valley Mine reserves the right to use only those methods which are necessary and practical to obtain an effective ground cover. Revegetation of temporarily disturbed sites will provide vital information on the methods and techniques required to establish an effective vegetative cover.

C. Amounts of seed to be used should be increased to 20 pounds per acre.

Refer to "A" of this section.

D. Thickness of surficial material to be stockpiled and re-spread is not indicated.

Refer to Section 7.

E. Disturbed areas not directly required for mining such as sediment pond embankments, diversions cut in unconsolidated material, and outcrops of permanent fill slopes must be re-vegetated as soon as possible.

The requirements for the revegetation of temporarily disturbed sites are hereby acknowledged.

9. Page 6-1: The Division cannot approve the project without a mining plan. The mining plan affects the development of a subsidence monitoring plan and the groundwater monitoring plan. In addition, surface effects of underground mining may require certain areas to be left supported. The Division will require a subsidence monitoring program for this project.

The proposed mine layout is shown in Figure 4. Also a proposed subsidence control plan is presented as Appendix A'. Subsidence control buffer zones will be maintained to adequately safeguard designated surface areas. These areas will include selected man made structures and natural features which are vital to the environmental balance.

Hidden Valley Mine currently has the capability to monitor any subsidence which might occur on the property. All necessary subsidence control points have been properly installed, and their locations are indicated in Appendix A'. Standard photogrammetric methods can now be used to determine the extent of any subsidence which may occur due to mining activity.

10. *Appendix A: Topographic detail on this appendix is very poor, more detail on this area is needed. Supplying a mylar or other reproducible and transparent print would be helpful.*

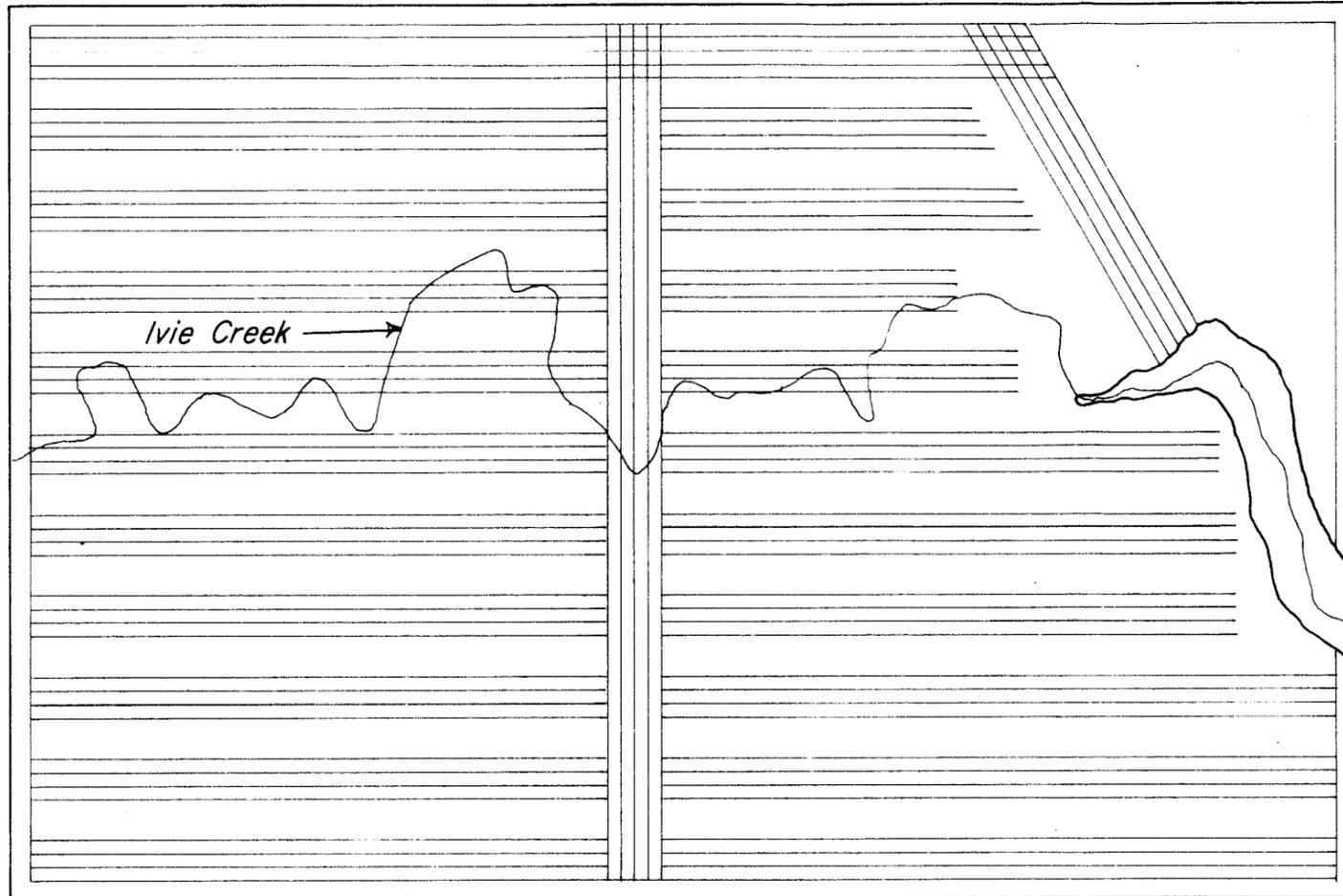
A reproducible print of adequate quality will be supplied to the Division.

11. *Appendix B: Specifications on diversions are required, i.e., profile and dimensions.*

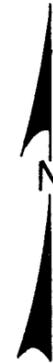
Appropriate plans, profiles, and dimensions of any major diversions will be submitted to the Division for their approval, prior to the construction of any such facilities.

As shown on the map, drainage from part of the raw coal pile does not flow into a sediment pond. This must be corrected.

The elevation contours shown in Appendix "B" of the Mining and Reclamation Plan represent the surface elevations as they currently exist. This is not an accurate representation of the final elevations after completion of the surface facilities. Elevations of the raw coal storage pile will be altered to insure proper drainage. However, it is anticipated that some elevations on the eastern fringe of the storage pile will remain unchanged and therefore, flow away from the sediment pond. The area in question would be of insignificant size to warrant the construction of a diversion through solid sandstone. A properly placed berm would be more than adequate containment for any runoff from this area.



HIDDEN VALLEY MINE
PROPOSED MINE LAYOUT



REVISIONS			 Soldier Creek Coal Company
NO.	DATE	BY	
1.			
2			
3			
SCALE: 1"=1000'			TITLE: Proposed Mine Layout
DRAWN BY: DGS			DATE: 12-20-79
CHECKED		DATE	APPROVED
			DRAWING NO. Figure 4.
			pg. 12

12. General comments:

A. *More information is required showing final proposed reclaimed land configuration and proposed postmining land use.*

The proposed surface configuration of the refuse pile is described in Section 7-D. All other disturbed sites will be reclaimed to a condition comparable to their original state.

Due to the limited surface disturbance and reclamation requirements, the postmining land use will be insignificantly altered from present land usage.

B. *A commitment to have sediment ponds operational prior to major disturbance and prior to coal production is needed.*

The proposed sedimentation ponds designed for the runoff containment of a specific area, will be operational prior to any major disturbance in that area.

C. *All proposed topsoil stockpiles must be shown on a map.*

Refer to Section 7-F.

D. *An archeological survey is recommended prior to site disturbance.*

An archeological survey is currently being conducted.

E. *Please be reminded that the permanent program requires more detailed soils information such as a complete soil survey and soils map. It would be to Soldier Creek Coal Company's benefit to obtain this information prior to disturbing the area.*

The soils information required under the permanent program is hereby acknowledged.