

ACT/015/032  
#2

**GENWAL MINE - CRANDALL CANYON**

**Soil Salvage Practices  
Summer, 1997**

**October, 1997**

**Submitted to:**

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## Genwal Resources, Inc., Culvert Expansion

### Soil Salvage Project Summer, 1997

#### 1.0 Introduction

The soil recovery operation at Genwal was supervised and monitored by privately contracted environmental consultant, Patricia K. Johnston, Reclamation Specialist and closely scrutinize by Division of Oil and Gas Mining, Soil Reclamation Specialist, Robert Davidson, July through September, 1997. This was to fulfill the requirements outlined in Chapter 2.0 of the M&RP to maintain, protect and redistribute stockpile topsoil and subsoil of the Genwal disturbed area as described and mapped in Figure 8B of Appendix 2-3B, Supplemental Soil Inventory, revision 6/19/97.

Soil recovery volumes and location of soil resources was determined through extensive soil sampling and mapping conducted in the summer of 1995 and 1996. It was agreed that soil recovery would be maximized in those areas where depth would allow for additional soil salvage, recognizing that soil recovery may not be met in other map units where soil resources may be more limited. An additional soil salvage area was identified by Davidson of DOGM and Gary Gray of Genwal, Inc. The soils recovered from this area would contribute to the established target volume required. This area has been identified as "Soil Salvage Area D." It is located in the southwest corner of the Forest Service Special Use Permit Area for this project.

Additionally, a new topsoil storage pile was established at the mouth of Crandall Canyon and marked Topsoil Pile #4. This topsoil stockpile will conform to DOGM and U.S. Forest Service regulations.

The presence of rock and vegetative material in the top soil stock pile was considered acceptable and desirable. (Personal Communication, Robert Davidson, DOGM Soil Reclamation Specialist.) These components were incorporated in the top soil stock pile as available during the soil stripping and recovery process.

#### 2.0 Methodology

Topsoil and subsoil was removed using the island method. Figure 8B, Soil Salvage Area served as a guide for soil removal volumes and locations.

The reclamation specialist contracted by Genwal examined each truckload of soil for quality and quantity. An accounting of the amount of soil recovered from the various sites within the mine was also documented.

Soil resource volumes were arrived at by keeping a daily record of truck loads that deposited material in top soil stock pile #4. Each vehicle would hold a capacity of 12 cubic yards of soil, all trucks were loaded to capacity.

### 3.0 Observations and Discussion

<u>Soil Salvage Area</u>	<u>Acreage</u>	<u>Volume Salvaged</u>
Map Unit A (N. Slope Area)	0.11	180 cubic yards
*Map Unit B (S. Slope Bench Area)	0.23	
*Map Unit C (Coal Pile Area)	0.25	1,728 cubic yards
Map Unit D (SW corner Permit Area)	0.50	1,872 cubic yards
<b>TOTAL SOIL SALVAGED (August-September, 1997)</b>		<b>3,780 cubic yards</b>

\*Soil Salvage Areas B & C were combined and made contiguous during salvage operation.

Target soil salvage volume projected was 3,480 cubic yards. Actual soil salvage operation exceed target volume with a figure of 3,780 cubic yards.

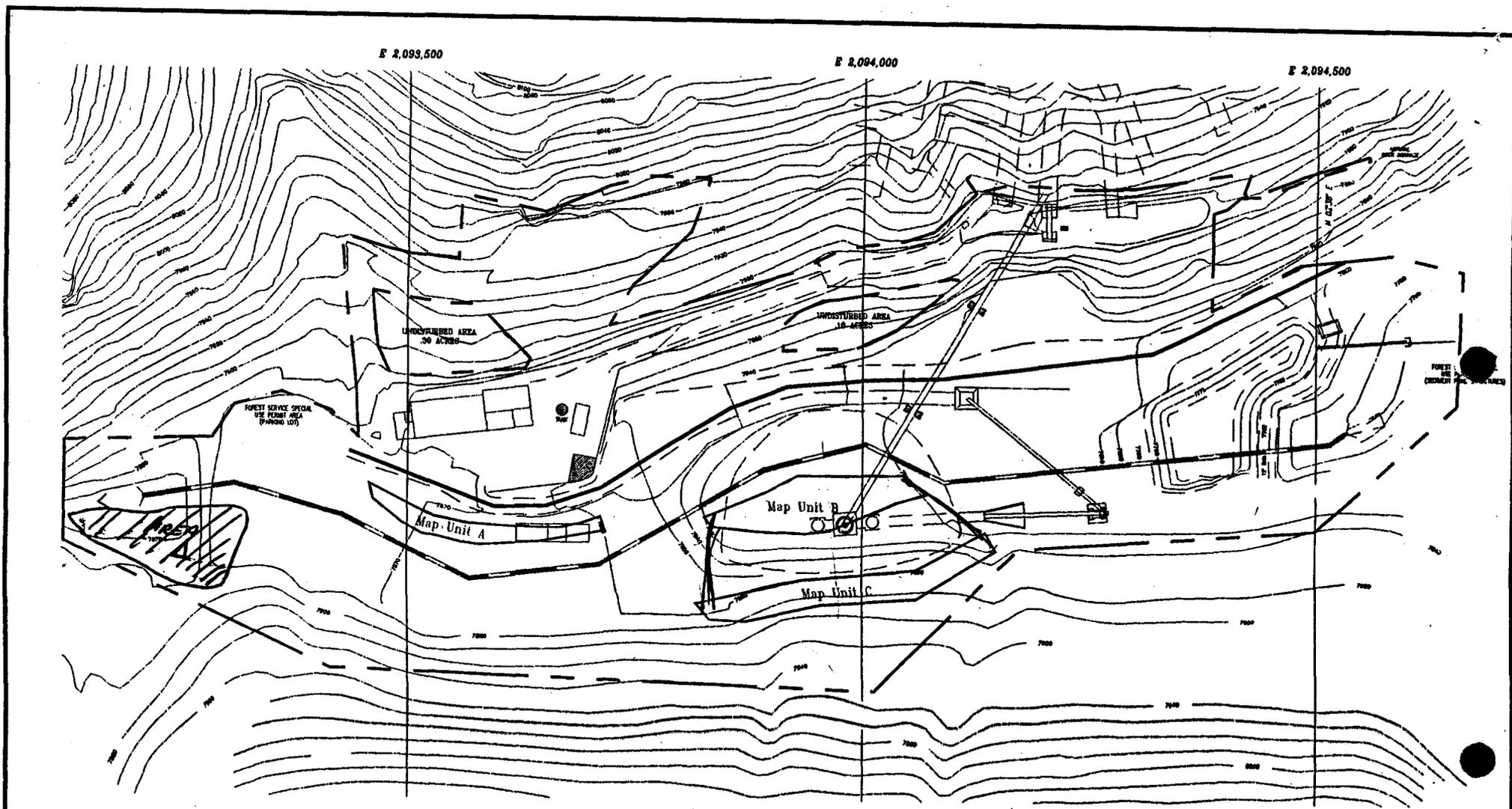


FIGURE 8B  
SOIL SALVAGE AREAS

SOIL SALVAGE AREAS

	Acreage	Volume	<i>Depth</i>
Map Unit A (N. Slope Area)	0.11 ac	1,084 cu. yd.	2'
Map Unit B (S. Slope Bench Area)	0.23 ac	1,860 cu. yd.	4'
Map Unit C (Coal Pile Area)	0.25 ac	536 cu. yd.	< 1'
MAP UNIT D (SW CORNER OF PERMIT AREA)	≈ 0.50 ac		