

HAT CREEK PROJECT  
1983 RECLAMATION REPORT

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B.C. Hydro  
Environmental and Socio-economic Services

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## 1.0 INTRODUCTION

During 1983 B.C. Hydro did not undertake any additional exploration or mining activities in conjunction with the Hat Creek coal reserve. The areas disturbed and reclaimed in previous years were monitored. Information on water quality in the Hat Creek and Bonaparte River, and meteorological parameters continued to be collected during 1983.

The status of the Hat Creek Project remains as indefinitely deferred. The site will continue to be inspected monthly as part of a maintenance and monitoring program required by the local Inspector of Mines. Included in the program are inspections of drainage and reclaimed areas.

## 2.0 RECLAMATION

Reclamation activities during 1983 were limited to inspections of the coal pile leachate sumps and a survey of the condition of vegetation on areas which were previously revegetated. A summary of all areas disturbed and reclaimed to 31 December 1983 is recorded in Table 1.

A detailed field survey was conducted on 24 June 1983. The vegetation planted on areas disturbed in the excavation of Trench D in 1982 was found to be satisfactory.

Previously reclaimed areas at Trench A, Trench B, Trench C, Aleese Lake, Houth Meadows and Medicine Creek were found to be in good condition.

Drainage from the sites was inspected. Accumulations of runoff were found within the fenced area of Trench B and Trench D, however no pumping was required to maintain water levels within these trenches. The leachate sumps on the various coal piles were checked and found to be dry.

The appendix to this report details the 24 June 1983 site survey.

TABLE 1

SUMMARY OF ALL AREAS DISTURBED AND RECLAIMED TO 31 DECEMBER 1983

Disturbance	Area Disturbed (ha)	Area Recontoured (ha)	Area Seeded/Planted (ha)	Area Fertilized (ha)	Area Receiving Work (ha)	Total Area of Completed Reclamation (ha)
Roads	42.8	-	17.9	17.9	-	17.9
			(Many roads are still being used)			
All drill holes and trenches	56.0	8.0	48.1	46.1	-	48.1
Waste dumps	17.3	3.3	17.3	17.3	-	17.3
Stockpiles	1.0	-	-	-	-	-
<b>TOTAL</b>	<b>117.1</b>	<b>11.3</b>	<b>83.3</b>	<b>81.3</b>		<b>83.3</b>

APPENDIX A

JUNE 1983 FIELD SURVEY - HAT CREEK

APPENDIX A  
JUNE 1983 FIELD SURVEY - HAT CREEK

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JUNE 1983 FIELD SURVEY - HAT CREEK

A.1 PURPOSE

To review environmental matters related to project closure and monitoring as per the agreement with the Ministry of Energy, Mines and Petroleum Resources. Areas of specific concern were drainage and reclamation.

A.2 REVEGETATION

(a) Trench D

Disturbed areas were seeded in the fall of 1982 as part of the 1982 Site Investigations Program.

Main Dump - For the most part the catch was most satisfactory. No differences were noted between the seed mixes used. There were small patches without growth, but this was probably due to uneven distribution of seed. There were no obvious signs of nutrient deficiency.

Silt Pile - Generally, germination has been satisfactory through there remain patches with little growth. This pile was seeded in rows of individual species and does not appear to have been raked after seeding. Chlorosis was evident on some plants.

Medicine Creek - Very little sustained growth. Germination clearly took place only marginally, but since then the plants have dried out.



In summary, the main dump should proceed well in future years. The silt and Medicine Creek piles will need to be monitored especially the latter since sustained growth may be difficult to achieve.

Waste Coal Pile - Shows good start overall. The area where topsoil was spread contains weed species but not in concentrations likely to seriously outcompete the agronomics as has happened elsewhere. There were no weeds on the nontopsoiled area.

Road Embankment on Trench Mouth - Excellent catch is present in the furrows. Some native species are present.

(b) Trench A

3120 Dump - The dump face is now almost completely covered with vegetation. This has been a continuing improvement from initial seeding in 1977 and is particularly impressive considering the steep slopes along some sections 37° (i.e. free dumped waste).

The dump top is lightly productive and again the patches originally present have continued to fill in with only the odd bare patch now present.

3140 Dump - The face has excellent growth and rotting debris from previous years growth is now reducing the surface colour from orange to brown.

Top shows excellent growth as in previous years.

3160 Dump - Face remains patchy though some improvement is evident.

Top - topsoiled area - plants appeared dried out though improved agronomic species performance and reduced weed density is evident.

Nontopsoiled area continues to have vegetation only in the furrows.

Leachate Pile - Minimal growth; suspect that area was not raked after seeding and hence poor germination.

(c) Trench B

Subsoil and topsoil piles were well grazed by cattle. Gravel dump was fenced and appeared in satisfactory condition, not greatly changed from previous years. Dumps were not fertilized in 1983.

(d) Trench C

The new leachate pile showed a fair catch. This pile benefits initially from impervious nature of material since minor ponding assists germination. Time progress to complete reclamation will be slow. Other Trench C dumps were not fertilized during 1983.

(e) Aleese Lake

Plots generally in stable good condition though baked clay and colluvium showed slow recovery (still) from 1981 harvesting. Gravel and gritstone were in very good shape and on the coal pile and ash pile vegetation continued to close gaps. These plots were not fertilized in 1983.

(f) Houth Meadows

Although chlorotic plants were noted, the area seemed much the same as previous years. The fence was down and a tree had been blown over. This area was not fertilized in 1983.

(g) Medicine Creek

The area was not visited. It was not fertilized during 1983.

### A.3 DRAINAGE

#### (a) Trench D

The pool in the trench bottom was clear and contained water boatman; ducks were also present. The source of water was runoff from roads and from within the trench. Ditching about the trench has clearly been effective in directing water into the trench. Some flows from outside the trench did occur, i.e. from the south side of 3140, 3120 dumps of Trench A. However, additional ditching now diverts this runoff away from the trench. There was no water seeping from the exposed coal measures in the trench. This is notable since during 1982 this was the source of water in the trench.

#### (b) Leachate Piles

Four new leachate collection facilities were constructed during 1982, namely silt and medicine clay material from Trench D, gritstone from Trench A and bentonitic material from Trench C. None of these had collected any seepage.

#### (c) Other Areas

All other drainage facilities including the coal processing area were in good condition. There was no reason to pump any out.