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TULAMEEN COAL PROJECT

Surface Work Permit #C-115

Annual Reclamation Report, 1978

Coal Licences Nos. 69, 70, 71, 125, 126, 145,
146, 147, 154, 158, 159, 3663, 3664, 3665

N.T.S. 92-H-7, 10

Lat.: 49°30'

Long.: 120°45'

By:

T. J. Adamson

CYPRUS ANVIL MINING CORPORATION

February, 1979

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SYMBOLS

MAIN GEOLOGICAL CONTACTS
1977 DIAMOND DRILL HOLES

LEGEND

Tertiary

4 UPPER VOLCANICS; brown to black basalt
UNCONFORMITY

3 COAL BEARING SEDIMENTS; mudstone, shale, sandstone, conglomerate

2 LOWER VOLCANICS; andesite to felsite
UNCONFORMITY

Upper Triassic
NICOLA GROUP; metamorphosed volcanic and sediments

AREA OF 1977 PHYSICAL WORK
RECLAMATION IN 1978

AREA OF 1978 PHYSICAL WORK
RECLAMATION IN 1978

CYPRUS ANVIL MINING CORPORATION KEY MAP TULAMEEN COAL PROJECT

SCALE 1:50,000 ÉCHELLE

NTS 92 H. 7, 10

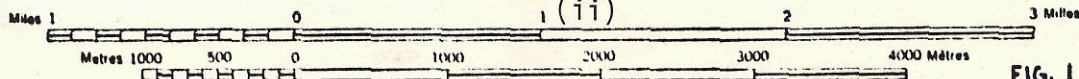


FIG. 1

TULAMEEN COAL PROJECT

Surface Work Permit #C-115 Annual Reclamation Report, 1978

INTRODUCTION

During 1977, Cyprus Anvil Mining Corporation carried out a field exploration program within the Tulameen Coalfield.

Work carried out during the program included the following:

- topographic control survey,
- new aerial photography,
- preparation of base maps and orthophotos,
- geological mapping,
- bulldozer and backhoe trenching,
- diamond drilling,
- electrologging of drill holes,
- bulk sampling,
- extensive analyses and testing of bulk and core samples,
- geophysical resistivity and I.P. survey.

The location and extent of all physical work done during the 1977 program, which resulted in surface disturbance, was reported in a Reclamation Report for 1977 which was submitted on January 6, 1978. As was noted in that report, reclamation of 1977 work sites was deferred until 1978, as it was anticipated that many of the roads, trenches, and drill sites could be re-occupied during the 1978 exploration program.

Surface work continued on the Tulameen licences during the 1978 field season. Work carried out at this time included the drilling and electrologging of eight rotary drill holes and the excavation of 21 small back-hoe test pits. This work was done in an area to the south of the No. 3 underground mine and was removed from the area of our 1977 field work. All of the 1978 work was carried out along existing accessible roads and

resulted in only minimal surface disturbance.

This report covers the reclamation that was carried out, during 1978, of areas that were disturbed during the 1977 and 1978 exploration programs on the Tulameen coal licences.

SURFACE DISTURBANCE

	<u>Area Disturbed</u>
1. 1977 Field Work - see previously submitted "Reclamation Report - Coal Exploration" for calendar year 1977.	17,552 m ²
2. 1978 Field Work -	
(a) Drill Sites - all drilling was carried out using a truck-mounted rotary drill rig. Six sites involved no surface disturbance. Two sites required minor levelling.	65 m ²
(b) Back-hoe Test Pits - 21 small pits along existing roads.	125 m ²
3. Large bulldozer trenches, pre-dating Cyprus Anvil's involvement in this area, in which, during 1977, the floors of the trenches were cleaned out to facilitate mapping without increasing the original disturbed area.	5,900 m ²
	<hr/>
	23,642 m ²
	= 2.36 ha.

RECLAMATION

Main Access Road:

This road was left in a stable, non-erosive condition.

Water bars were constructed on steep pitches where necessary. As advised by A. L. O'Bryan, Reclamation Inspector (letter of July 24, 1978), this road was not revegetated.

Branch Roads leading to drill sites and trenches:

All branch roads were seeded and fertilized.

Drill Sites:

All drill sites were recontoured, seeded and fertilized.

Back-hoe trenches and pits:

All back-hoe excavations were completely backfilled, seeded and fertilized.

Bulk sample test pits:

Two pre-existing bulldozer trenches, which were substantially deepened for bulk sampling, have been left open as it is probable that additional bulk samples will be required. The banks and margins of these pits have been seeded and fertilized.

Bulldozer trenches:

All pre-existing bulldozer trenches, which were cleaned out for mapping during 1977, have been partially backfilled, seeded and fertilized.

Slash control and timber disposal:

During the course of road construction, drill site preparation and trenching, all timber of marketable size which was cut was recovered and decked along the main access road. The B.C. Forest Service was unable to commercially dispose of this timber and it will now be burned by B.C. Forest Service at some appropriate time.

All leaners and other damaged timber along roads and around drillsites have been bucked into short lengths and laid flat on the ground or piled for burning by the B.C. Forest Service.

REVEGETATION PROCEDURE

Seeding and fertilizing were carried out during September, 1978. A hand-held cyclone spreader was used for seed and fertilizer distribution.

Seed Mixture:	Creeping Red Fescue	-	40%	by weight.
	Climax Timothy	-	25%	" "
	Smooth Broom	-	10%	" "
	Alfalfa	-	10%	" "
	White Clover	-	7%	" "
	Alsate	-	8%	" "

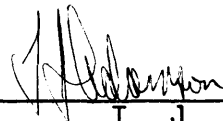
Seed Application Rate: Approximately 57 kg/ha. (50 lbs./acre).

Seed Supplier: Richardson Seeds, 7342 Winston Street,
Burnaby, B.C.

Fertilizer: 20-24-15.

Fertilizer Application Rate: Approximately 225 kg./ha.
(200 lbs./acre).

Respectfully submitted,



T. J. Adamson
Geologist

APPENDIX I

CYPRUS ANVIL MINING CORPORATION

TULAMEEN COAL PROJECT

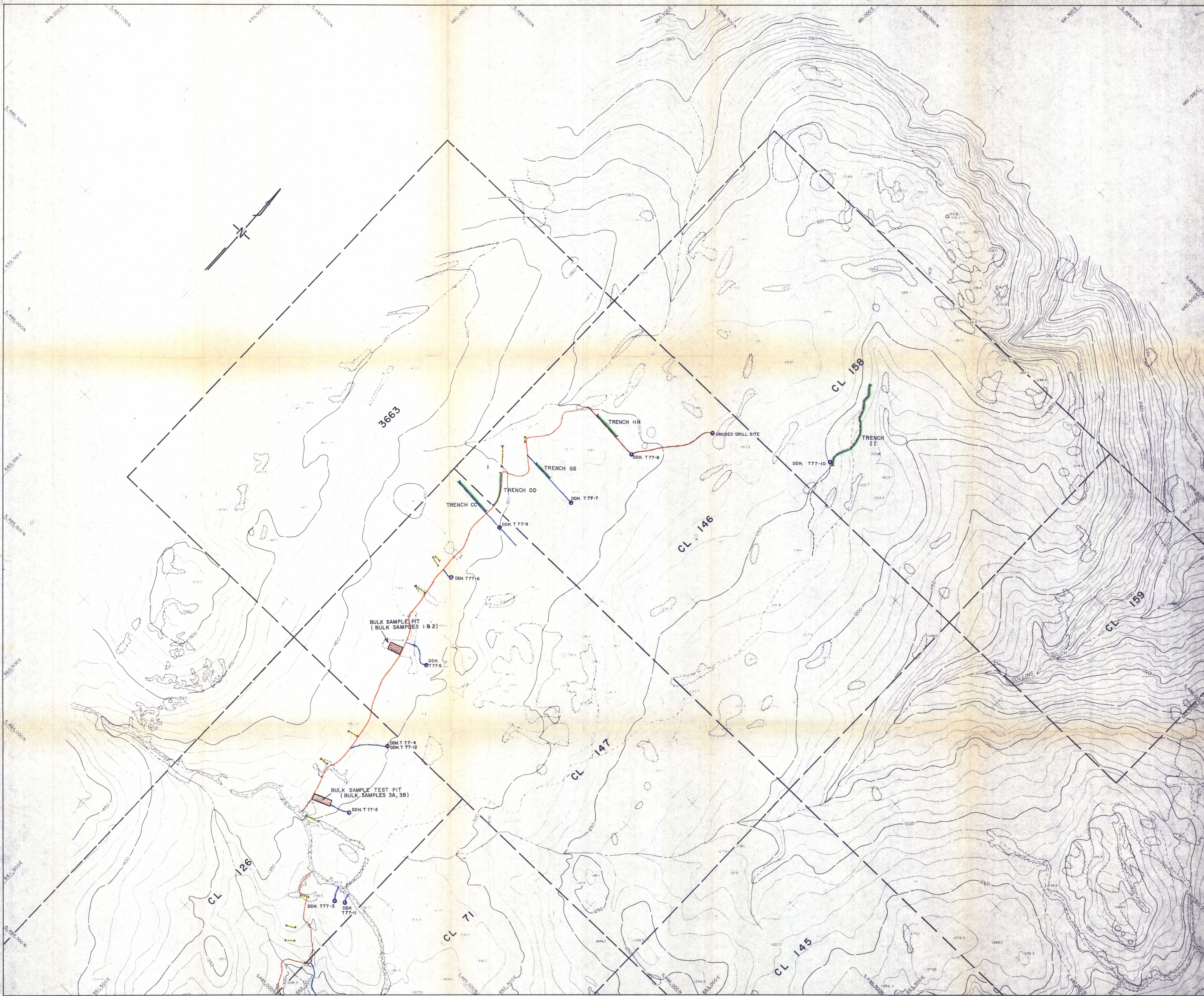
SUMMARY OF EXPLORATION AREAS DISTURBED AND REVEGETATED

TO DECEMBER 31, 1978

Type of Disturbance	Length (km)	Disturbed Area (ha)	REVEGETATION				Total Not Seeded
			Area Recontoured (ha)	Area Seeded (ha)	Area Fertilized (ha)	Total Area Receiving Work (ha)	
Roads	1,570	.78		.65	.65	.65	.13 (1)
	Number						
Test Pits (Backhoe)	21	.01	.01	.01	.01	.01	-
(Bulk Sample Pits)	2	.17		.17	.17	.17	-
Trenches (Backhoe)	5	.05	.05	.05	.05	.05	- (2)
(Pre-existing bull-dozers Adits dozer Trenches)	12	.59	.59 (partial)	.59	.59	.59	-
Drill Sites	20	.76	.76	.76	.76	.76	-
Other							

(1) Total area not seeded is on main access road.

(2) Most backhoe trenches were along new roads. The disturbed and revegetated area involved is included in road work above.



LEGEND

CONTROL POINTS
SPOT ELEVATIONS
OLD IRON PINS
PHOTO CENTRE
INTERMITTENT STREAMS

△ HV 993
○ OIP
+ 10

RIVERS
TRAILS
ROADS
TREES
CONTOURS

1:500
1:1000
1:2000
1:3000
1:4000
1:5000
1:6000
1:7000
1:8000
1:9000
1:10000

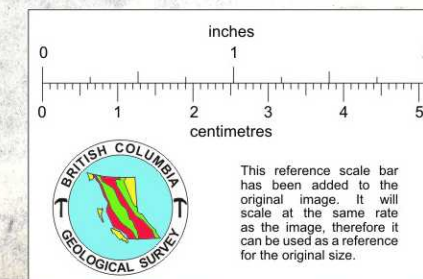
1978 Reclamation of 1977 Disturbed Areas

MAIN ACCESS ROAD
REVEGETATED ROADS
RECONTOURED AND RESEEDED BACK-HOE TRENCHES (TRENCHES UNDERLYING MAIN ACCESS ROAD BACKFILLED BUT NOT SEEDDED).
RECONTOURED AND REVEGETATED DRILL SITES.
PRE 1977 BULLDOZER TRENCHES PARTIALLY RECONTOURED, THEN SEEDDED.
BULK SAMPLE TEST PITS, REVEGETATED BUT NOT BACKFILLED.

SCALE 1:5000

METRES 100 0 200 400 600 800 METRES

burnett resources survey ltd.
BURNETT PHOTOGRAMMETRY SURVEYORS



Cyprus Anvil Mining Corporation

TULAMEEN COAL PROJECT

Date of Photography: June 17, 1977
Contour Interval: 10 meters

COMPILED BY: T.J.A. DATE: FEB. 6, 1979

SHEET 1 OF 2

MAP 1

