2008

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Department of Mines and Patroleum Resources ASSESSMENT REPORT NO. **2008** MAP

APPENDIX "A"

Statement of Costs of the Soil Sampling Survey

Line Cutting

Labour Maintenance in field Transportation in field	\$ 2,512.28 587.13 380.70	\$ 3,480.11
Soil Sampling		
Labour Maintenance in field Transportation in field Sampling equipment	\$ 2,752.87 783.00 497.00 284.03	4,316.90
Analysis of samples	3,995.42	
Supervision, line cutting and sampling	1,346.21	
Mapping, engineering, drafting, airphotos	58 5.92	
Administration and head office expense		
(37% of labour, line cutting, sampling)		2,046.43
Total		\$ 15,770.99

I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act".

Declared before me at the bity)
of Vancouver, in Province of British Columbia, this	the	D. 1.
Province of British Columbia, this	25th	Johnah Worran
	A.D.	

A Commissioner for taking Affidavits within British Columbia or a Notary Public in and for the Province of British Columbia.

APPENDIX "B"

Statement of Costs of Line Cutting and Soil Sampling

Line Cutting Cos	ts	Rate/		Time expended
Name	Category	Month	Dates Worked Wages	-
Baglole, R.A.	Linecutter	\$400.00	Aug. 17-Sept. 26 \$390.33	25
Berland, A.	11	425.00	Aug. 18-Aug. 31 303.16	
Davis, G.	11	450.00	Aug. 23-Aug. 30 208.10	8
Heemskerk, N.P.	` ff	400.00	Oct. 4-Oct. 16 195.52	10
Klaassen, H.	11	675.00	Aug. 19-Sept. 1 429.04	13
Mather, K.R.	. 11	400.00	Oct. 4-Oct. 16 197.02	10
Nichol, J.	` н	400.00	Aug. 19-Sept. 15 487.95	29
Rogers, L.	11	400.00	Sept. 8 17.82	1
Stuki, E.	11	400.00	Aug. 19-Sept. 5 283.34	21
•			\$2,512,28	130
Gail Gamaling Ca	• • •	•	+	
Soil Sampling Co	sts			¢
Baglole, R.A.	Sampler	\$400.00	Sept.27-Sept.30 \$ 70.70	4
Burgoyne, A.A.	ិ	950,00	Sept.16-Oct. 7 .497.68	- 11
Heemskerk, N.P.	11	400,00	Oct. 17-Oct. 20 69.37	3
Mather, K.R.	11	400.00	Oct. 17-Oct. 20 70.87	* 3
Nicholls, J.	- - 15	450.00	Sept.17-Nov. 20 228.75	14
Staniforth,R.	11	400.00	Oct. 5-Oct. 15 256.00	8
Gonzales, R.	n	850,00	Sept.15-Dec. 1 1412.82	44
McAndrew, J.	T1	950.00	Sept.18 42.46	1
Ott, B.	11	400.00	June 25-July 2 103.62	
•		100000	\$2,752.87	
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I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the bity of Vancouver derich been , in the Province of British Columbia, this $25^{t/1}$

Province of British Columbia, this 25th day of fam June, 1969, A.D.

A Commissioner for taking Affidavits within British Columbia or a Notary Public in and for the Province of British Columbia.

ANACONDA AMERICAN BRASS LIMITED

Geochemical Survey of the Empress Claim Group

Introduction

The 152 claim Empress Claim Group was staked in June, August and October of 1968 as a contiguous block of claims. It is located on Shinish Creek in the Similkameen Mining Division at longitude 120-05, 49-38 (south-east corner). Claims were staked by company personnel as agents for Anaconda American Brass Limited. The elevation of the claim block varies from 4300 feet to 6100 feet above sea level.

Stream sediment sampling on Shinish Creek and some of its tributaries indicated a source of molybdenum and copper ions existed north of Shinish Creek and east of the head of Empress Creek. It was therefore decided to conduct a systematic soil sampling survey of the Empress Claim Group with the object of searching for areas of concentrations of molybdenum and copper ions as a first step in the investigation of those claims.

Description

The Empress Claim Group is made up of the following claims: Empress 1 to 54, 642 to 655, 2617 to 2676, 4562 to 4569, 5656 to 5666, 8315, and Empress 55 Fr., 56 Fr., 57 Fr. and 58 Fr.

They occupy an area on the north side of Shinish Creek from the head of Empress Creek east to the divide separating Shinish Creek from the creek draining north east into Trout Creek and an adjoining area occupying the valley of Shinish Creek and the ground south of Shinish Creek near its head. The location is approximately 6 miles south east of Osprey Lake. Seven of the 152 claims are recorded in the Osoyoos Mining Division, the balance of the group's 145 claims are recorded in the Similkameen Mining Division.

Ground cover is interior jack-pine with small patches of spruce around drainage systems. There is one large size swamp area in the vicinity of Empress Creek and several small (less than 500 feet in diameter) swampy areas on the south side of the head of Shinish Creek.

Bedrock cover is generally complete over the claims; there are small rock bluffs exposed on the north side of Shinish Creek and at rare intervals outcrops up to 20 feet by 20 feet occur. Bedrock is estimated to be shallow except adjacent to and on the north side of Shinish Creek. Here there are indications of concentrations of glacial till in the form of small moraines.

Geology

Granodiorites, Monzonites, felsite and quartz porphyries were observed during the course of the survey. There is evidence in at least one location of weathering of bedrock to a depth of two feet. Erratic float material of basic volcanic rocks observed are believed to have been transported into the area.

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Reason for the Survey

This survey was planned to locate and outline areas of anomalous copper and molybdenum ions where further investigations of the sub-surface could be concentrated.

Details of the Survey

An east-west base line was established along the projection of the centre line of staking of Empress 1 to 10; a northsouth base line was established along a line connecting the final posts of Empress 31/32, 23/24, 49/50, and the initial posts of 642/643, 2617/2618 and 2631/2632. At intervals of 800 feet north and south of the east-west base line, surveyed lines chained and picketed at 100 foot intervals were cut out, using Brunton compass and survey chain methods. Some 51.25 miles of lines were surveyed in this manner. Stations at picketed points were identified with the standard north-south, east-west grid numbering system. The survey is tied to an existing B. C. Forest Service base line at the west end of the group of claims.

Early in September an orientation survey was conducted in an area where bedrock cover occurs up to 3.5 feet. Within the surveyed area the bedrock is overlain by 4 to 16 inches of C-soil horizon, in turn overlain by a wide spread sandy clay till of 4 to 20 inches thickness. Locally the weathered bedrock is overlain by a residual B_2 -soil horizon or a B_1 -soil horizon developed from glacial till. The geochemical tests indicated the B_1 -soil horizon could be successfully used in delineating molybdenum concentrations in areas where overburden thickness is not greater than 6 feet.

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Methods of Determining Metal Content

Laboratory analyses of the samples were made by Ben Singh, graduate geochemist, in Anaconda's geochemical laboratory under the supervision of A. A. Burgoyne, Manager of the laboratory. Samples taken in the field were packed in marked manila soil sample envelopes at the sample site. Preliminary drying in air was done before shipping to the laboratory. Drying of the samples was completed in electric ovens at the laboratory, followed by screening to 80 mesh. Molybdenum was determined by the classic calorimetric thiocyanate method; all other metals were determined by standard atomic absorption techniques.

Results of the Survey

Approximately 2600 sample stations were occupied; 2550 samples were recovered and 6730 determinations were made for two or more of the following metals: molybdenum, copper, zinc and lead.

The value quoted in parts per million was plotted on an overlay of the claim map on a scale of 400 feet = 1 inch.

The geochemical survey indicates one broad north-south trending copper anomaly underlying Empress 1 to 8, Empress 12 to 20, and Empress 39 to 44; and a relatively narrow molybdenum anomaly underlying Empress 12, 4 and 16, Empress 1 to 5, Empress 37 and Empress 39. Several small isolated concentrations of copper ions are indicated elsewhere on the claims.

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An anomaly of molybdenum may underly Empress 2555 to 2558, and a copper and molybdenum anomaly may underly Empress 654 and 655.

The validity of the molybdenum anomaly was reinforced by finding molybdenum as the di-sulphide and oxides in place within the anomalous areas on some of the claims. The abrupt cut-off of the metal at the south end of the anomalous areas may be due to excessive depths of ground cover and failure of the metal ions to penetrate this cover.

Results of the survey indicate more detailed geochemistry and other investigations should be made in at least three areas on the claims.

Respectfully submitted,

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Eng. ck Macrae.

June 20th, 1969.



