

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED  
TRAIL, B.C.

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GEOPHYSICAL REPORT  
ON THE HANS 1-8, BARB 5-8, AND DOG 1-4 CLAIMS OF THE  
HANS-BARB PROPERTY - WHITEHORSE M.D.

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Located claims on which assessment work is requested:

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>
Hans No. 1	77843	July 16/62
" " 2	77844	"
" " 3	77845	"
" " 4	77846	"
" " 5	77847	"
" " 6	77848	"
" " 7	77849	"
" " 8	77850	"
Barb 5	85571	Nov. 12/63
" 6	85572	"
" 7	85573	"
" 8	85574	"
Dog 1	85404	Sept. 9/63
" 2	85405	"
" 3	85406	"
" 4	85407	"

Work was done on the claims between May 30 and June 21, 1964.

REPORT BY

R.G. GIFFORD  
GEOLOGICAL ENGINEER

SUPERVISED BY

P.H. SEVENSMA  
PROFESSIONAL ENGINEER

RGG:gmc

GEOPHYSICAL REPORT  
ON THE HANS-BARB PROPERTY - WHITEHORSE M.D.

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THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED  
TRAIL, B.C.

GEOPHYSICAL REPORT  
ON THE HANS-BARB PROPERTY - WHITEHORSE M.D.

1. SUMMARY

This report details a magnetic survey undertaken on the Hans 1-8, Barb 5-8, and Dog 1-4 claims, in part, during the period May 30 to June 21, 1964. As a result of geophysical work performed it is requested that one (1) year assessment credit be applied to each of the following, sixteen (16) located claims:

<u>Claim</u>	<u>Record No.</u>	<u>Date Recorded</u>	<u>Recorded Owner</u>
Hans No. 1	77843	July 16/62	Hans Sarge
" " 2	77844	"	"
" " 3	77845	"	"
" " 4	77846	"	"
" " 5	77847	"	"
" " 6	77848	"	"
" " 7	77849	"	"
" " 8	77850	"	"
Barb 5	85571	Nov. 12/63	The Cons. Mining and Smelting Co. of Canada Limited
" 6	85572	"	" "
" 7	85573	"	" "
" 8	85574	"	" "
Dog 1	85404	Sept. 9/63	C. Miller
" 2	85405	"	"
" 3	85406	"	"
" 4	85407	"	"

The total value of assessment credit requested on the above 16 claims is \$1,600. Total expenditures on the Hans-Barb magnetic survey were \$3,220.

This report, with accompanying maps and statement of expenditures is hereby submitted to record the required assessment work.

2. INTRODUCTION

A reconnaissance ground magnetic survey was carried out over the Hans-Barb property, including the Hans 1-8, Barb 5-8, and Dog 1-4 claims in part, to locate and detail a strong airborne anomaly outlined by the U.S.C. Asbestos, associated with magnetite, is found at the prospect. The survey was conducted for The Consolidated Mining and Smelting Company of Canada Limited between May 30 and June 21, 1964 by R.G. Gifford, Geological Engineer B.A.Sc. (British Columbia), under the

supervision of P.H. Sevensma, Geological Engineer B.Sc., Ph.D. (Geneva). Capable field assistance was given by J.M. Hamilton, 921 Beckwith Road, Richmond, B.C.; G. Bird, Salmon Arm, B.C.; and, G. Headley, 1966 Morgan Avenue, Port Coquitlam, B.C.

The prospect is located in the Whitehorse Mining Division, Claim Sheet No. 105 F-6 at Latitude  $61^{\circ} 17' N$  and Longitude  $133^{\circ} 09' W$ . The claims lie at elevation 3,200' along the upper reaches of Fish Creek, two miles east of Tower Peak and 75 miles northeast of Whitehorse. Access is gained from Mile 62.5 Canal Road by nine miles of jeep road. The terrain is moderate in relief and thickly forested in the valleys. Overburden appears to be not more than a few tens of feet deep on the valley slopes.

The survey was made with a Sharpe MF-1 magnetometer. This instrument measures the vertical component of the magnetic field and reads directly in gammas with a resolution of five gammas in the most sensitive range. Maximum sensitivity is 20 gammas per scale division.

Survey control was provided by chain and compass surveyed base lines. Traverse lines were northeast-southwest in the north half of the area and northwest-southeast in the south half. Readings were normally taken at 100-foot intervals along traverse lines spaced 400' apart. Base values of magnetic intensity were determined at convenient points in the survey area and check readings were made each day at two-hour intervals or less to establish the diurnal correction curve.

The value of the vertical magnetic field at each station, corrected to 150 gammas is shown on accompanying maps II to IV inclusive. To simplify interpretation only areas of significant values were detailed by magnetic contours.

### 3. GEOLOGY

The property is situated within the central portion of a narrow northwest-trending belt of late Paleozoic volcanics and sediments. Both sides of the belt are bordered by granitic intrusions. Ultramafic bodies, with associated asbestos mineralization, occur in the Paleozoic assemblage.

The main structural features trend northwest. Subordinate north-northeast folding is observed at the prospect.

### 4. RESULTS

#### Comparison with Airborne Magnetic Survey

An anomalous area of interest was located in the valley of Fish Creek by the airborne magnetic survey of the G.S.C. The anomaly has a peak value of 60,280 gammas and is approximately 2,000 gammas above background. It overlies a sill-like ultramafic body that is about 500' thick at the prospect.

The location, trend, and form of this anomaly, as delineated by the airborne survey, was essentially substantiated by the later ground survey.

#### Ground Magnetic Survey

Five general areas of higher than normal magnetic intensity were indicated by the ground survey. They are designated "A" to "E" on accompanying maps II to IV. Readings above 6,000 gammas are considered as significant in the surveyed area. Background readings are in the order of 3,000 gammas over the ultramafic body, about 2,000 gammas on volcanics overlying the ultramafic, and some 1,000 gammas, or less, on sediments underlying the ultramafic.

All the indicated anomalies, "A" to "E" inclusive, occur in an area of asbestos mineralization and are more or less allied with the ultramafic-volcanic contact. The anomalous areas may reflect a relative abundance of magnetite in the rock, or, due to the inter-relation of topography and

geology, they may reflect a greater thickness of serpentinite.

In addition, the survey greatly aided delineation of wallrock contacts with the ultramafic body. The contacts defined by the contrasting plateaus of magnetic intensity closely agreed with geological observations from point to point.

## 5. CONCLUSIONS

The magnetic survey shows several highs near the ultramafic-volcanic contact. This may indicate that there is an abundance of magnetite veins in these areas, and by association it may also indicate that there is significant asbestos mineralization present. In this respect the mineralization could as well be on the fringe of the magnetic high as coincident with it. However, the asbestos mineralization is observed to be weak in the prospect area, and it is dubious that further attention to the anomalous areas is warranted.

### References:

- (1) Map 7-1960, Quiet Lake.
- (2) Geophysics Paper 1373, Mount St. Cyr.

### Attachments:

- (1) Magnetic Survey of Hans-Barb Property, Plates I to IV inclusive.
- (2) Statement of Expenditures.
- (3) Statutory Declaration relating to Expenditures.
- (4) Statement of Qualifications.

Report by:

R.G. Gifford  
R.G. Gifford  
Geological Engineer

Endorsed by:

P.H. Sevensma  
P.H. Sevensma  
Professional Engineer

RGG:gmc

Trail Expl'n Office, Western District

November 20, 1964

Distribution: Mining Recorder, Whitehorse (3) ✓  
Western Exploration, Trail (1)  
Field file (1)

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED  
TRAIL, B.C.

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1964 EXPENDITURES ON MAGNETOMETER SURVEY OF  
THE HANS-BARB PROPERTY - WHITEHORSE M.D. Y.T.

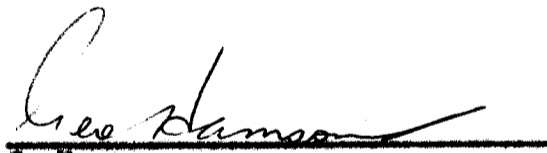
SALARIES:

P.H. Sevensma, P. Eng., Supervising Exploration Geologist; 7 days (intermittently through May 30 - June 21) for field supervision, and 2 days for report preparation at \$50/day.	\$ 450
G.D. Tikkanen, PhD., Geophysicist, 5 days (June 16-20 inclusive) field work on consulting procedures and interpretation at \$50 per day.	250
R.G. Gifford, Geological Engineer; 22 days (May 30 - June 21 inclusive) for field work, 8 days for data and map preparation at \$35 per day.	1,050
G. Bird, J.M. Hamilton and G. Headley, Exploration Technicians, 22 days each (May 30 - June 21 inclusive) for field work at \$20 per day.	1,320


INSTRUMENT RENTAL

Sharpe MF-1 magnetometer for one month at \$150 per month	<u>150</u>
TOTAL:	<u>\$ 3,220</u>

Endorsed by:

  
G. Hanson  
Branch Accountant

This is Exhibit "A" to the Statutory Declaration of Pieter H. Sevensma declared before me the..... day of ....., A.D. 1964.

  
A Commissioner for taking Affidavits  
for the Province of British Columbia.


CANADA ) STATUTORY DECLARATION RELATING TO EX-  
PROVINCE OF BRITISH COLUMBIA ) PENDITURES ON A GEOPHYSICAL SURVEY OF  
TO WIT: ) CERTAIN MINERAL CLAIMS UNDER OPTION TO  
THE CONSOLIDATED MINING AND SMELTING  
COMPANY OF CANADA LIMITED


I, PISTER H. SEVENEMA, Professional Engineer, of the City of Vancouver, in the Province of British Columbia, DO SOLEMNLY DE-CLARE:

1. That I am the person who endorsed a geophysical report as the result of surveys carried out of certain mineral claims, under option to The Consolidated Mining and Smelting Company of Canada Limited, situated in Whitehorse Mining Division.
2. That copies of the said report are being filed with the Mining Recorder in Whitehorse.
3. That attached hereto and marked with the letter "A", upon which I have signed my name at the time of declaring hereof, is a state- of expenditures incurred in connection with the geophysical survey of the said claims showing in addition the dates during which those making the said survey performed their work.

AND 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 Municipality of Tadanac, in Province of British Columbia, this 20 day of November A.D. 1964.

  
A Commissioner for taking Affidavits for British Columbia

  
P. H. Sevenema

THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED  
TRAIL, B.C.

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STATEMENT OF QUALIFICATIONS

R.G. Gifford was responsible for operating the geophysical instrument used in the magnetic survey described herein. Gifford is a graduate Geological Engineer of U.B.C. and has been employed in geological field work since 1951. During this time he has operated magnetic and electromagnetic instruments for various periods. I consider him a competent and experienced operator.

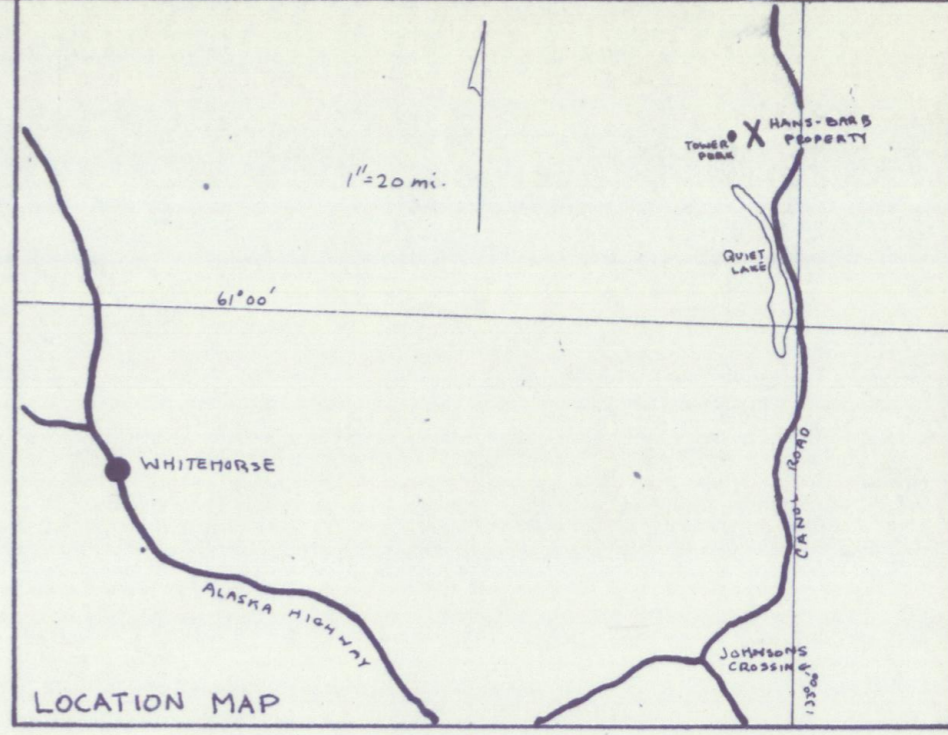
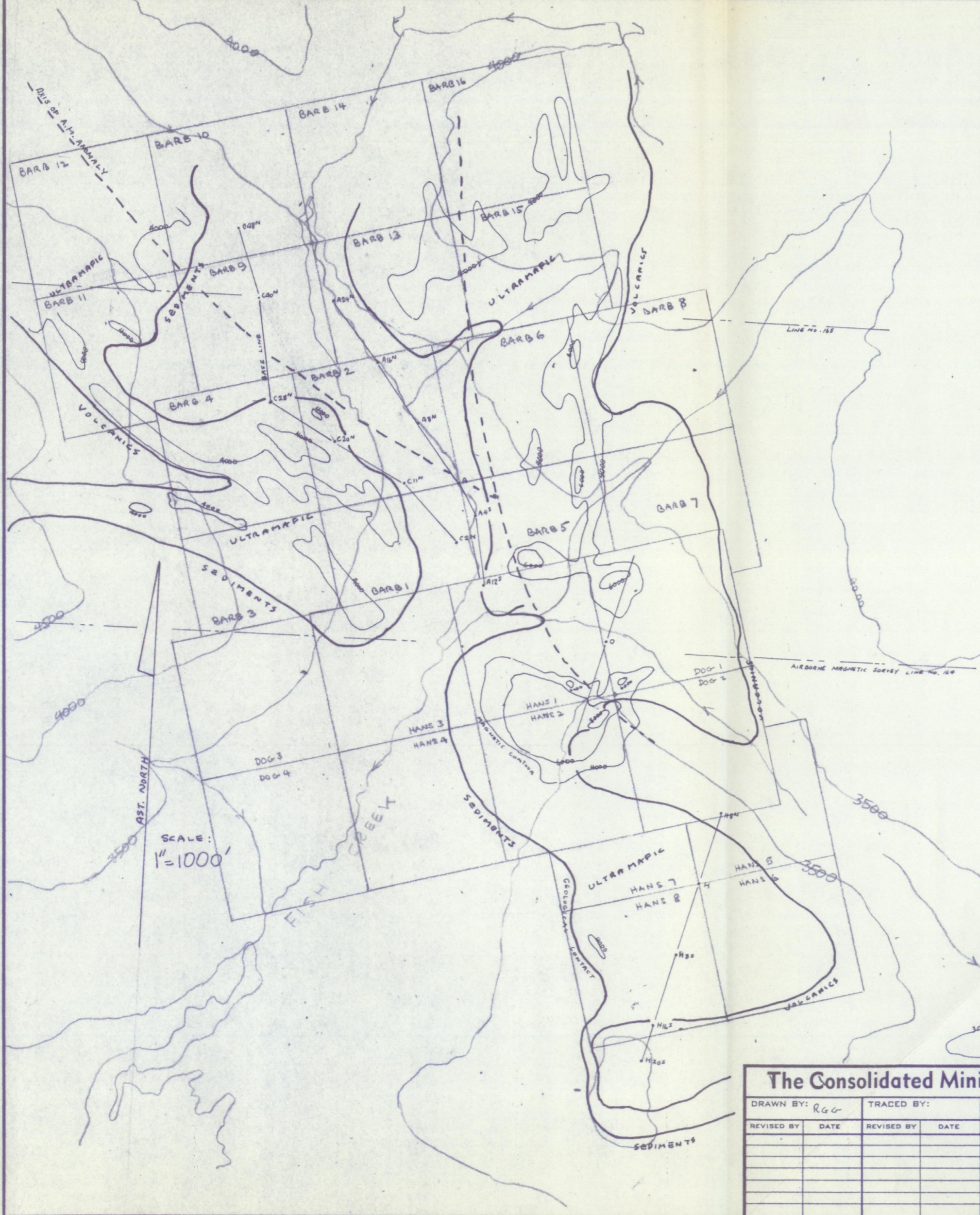
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P.H. Severson

PHS:mc  
Trail Expl'n Office, Western District  
November 20, 1964

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**The Consolidated Mining and Smelting Company of Canada Limited**

DRAWN BY: RGG		TRACED BY:	
REVISED BY	DATE	REVISED BY	DATE

MAGNETIC SURVEY  
HANS-BARB PROPERTY  
WHITEHORSE M.D.

SCALE: AS SHOWN      DATE: Nov. 12/64      NTS. 105 F6      PLATE: I



A36

SEE PLATE IV

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The Consolidated Mining and Smelting Company of Canada Limited

DRAWN BY:		REVISOR BY:	

MAGNETIC SURVEY  
HANS-BARB PROPERTY  
WHITEHOUSE M.D. NTS 05EFL-6  
SCALE: 1" = 200' DATE: JUNE 21, 1964 PLATE: II

SEE PLATE III

COMING 210-057



