

An Induced Polarization Survey
near the Haho Showing
Tchaikazan River Project

Taseko Lake Area B.C.
June 1982

This report covers the following Minerals Claims
held by Suncor Inc.

1062 SUN - 4
1063 SUN - 5
1093 SUN - 14
925 COUGAR - 8

on N.T.S. Sheet 92 0/4

Centered on 51°12'N 123°44'W
in the Clinton Mining Division

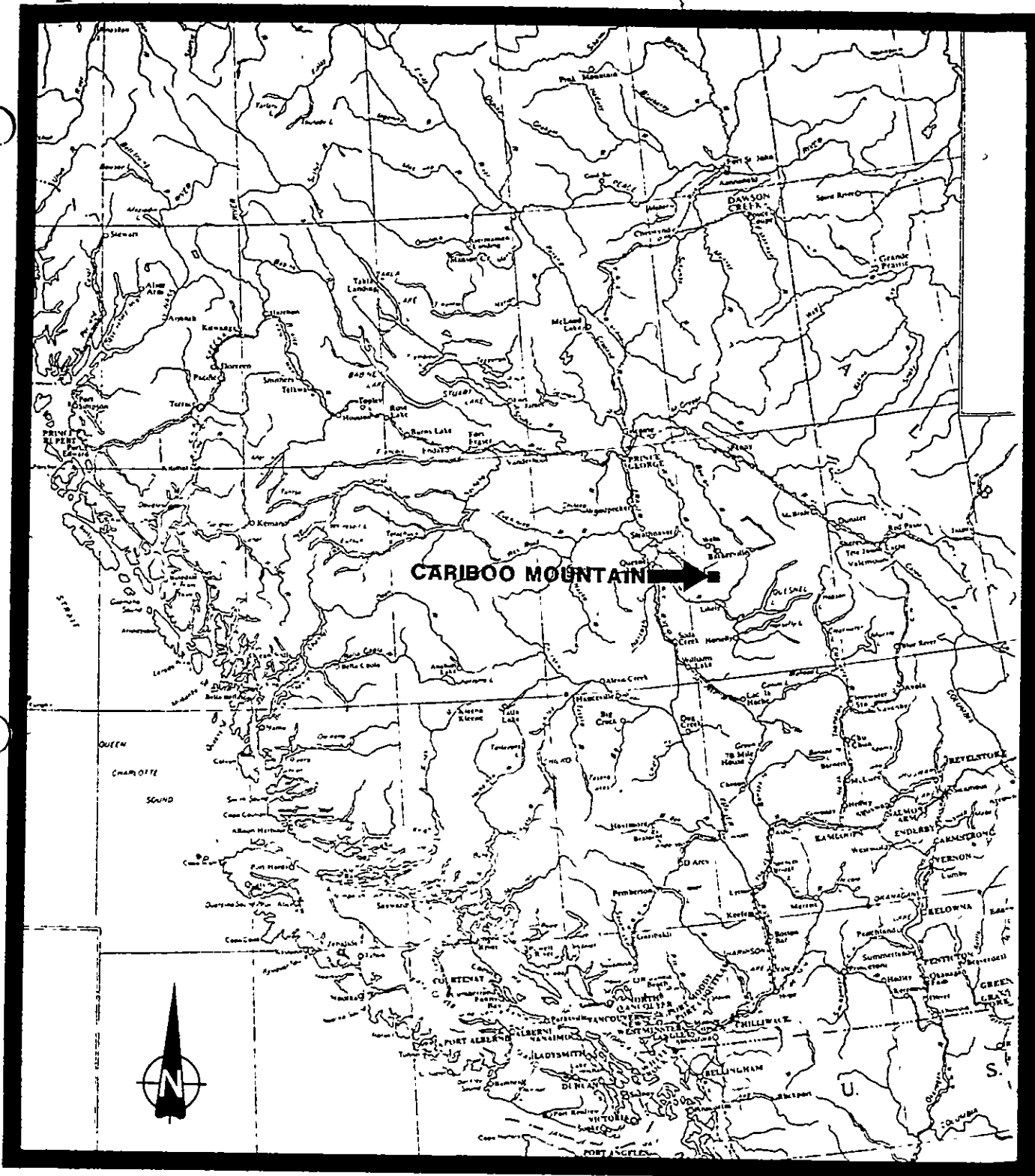
by Paul A. Hawkins, P. Eng.
Calgary, Alberta
Sept. 7, 1982

part 1
of 4

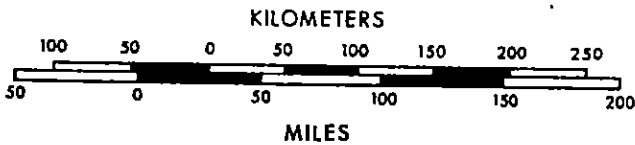
Suncor Report #9150

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10.774



130° 128° 126° 124° 122° 120°




 Luncor Inc. Resource Group		COAL AND MINERALS DEPARTMENT	
<h2>CARIBOO MOUNTAIN PROSPECT INDEX MAP</h2>			
DATE	SCALE	M.T.R.	DRAWING No.
SEPT. 1981	1:5000,000	92	81-057 F

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1.0

INTRODUCTION

This report covers part of an Induced Polarization survey conducted by Lloyd Geophysics on Suncor's Tchaikazan River Project. The one survey line covered in this report is located near a malachite showing located during the 1981 field season. The survey was conducted between June 1st and July 4th, 1982. All Geophysical personnel were on the staff of Lloyd Geophysics and the results were submitted to Suncor for interpretation and reporting. David Hall was the field supervisor for Lloyd Geophysics.

1.1 LOCATION AND ACCESS

The Tchaikazan River Project Area is located just west of the Taseko Lakes in south central British Columbia. The property is 156 km from Williams Lake by air, but also can be reached by road using 4 wheel drive vehicles via Lee's Corners, and along the Lord River Mine development road, a distance of some 270 km. The 1982 Base Camp was located at the Fishem Lake Airstrip. The property is located on Drawing 81-057F.

The Haho showing is located 5 km west-south-west of the Fishem Lake Airstrip at the 7900' level and is best accessed by helicopter. The IP line starts near the Haho showing and runs due west across Pond Creek and up the western side of the Pond Creek Valley. The IP line is located on Drawing 82-157B.

1.2 PROPERTY HISTORY

During a program of reconnaissance geological mapping and prospecting in the area of an old expired Prism Resources claim (Haho claim) malachite mineralization was found in overburden. The old Haho claim was staked as SUN-14. A detailed soil sampling program was undertaken in 1981 (Hawkins, P.A., 1981) however, the geochemical anomaly was apparently only very localized. The malachite mineralization occurs in a quartz stockwork with minor azurite in a volcanic rock.

The area was regionally mapped by the GSC (Tipper, H.W. 1978).

2.0 INDUCED POLARIZATION SURVEY

A Hunttec Mark III (time domain-pulse type) induced polarization unit was used to conduct this survey. The transmitting unit had a rating of 7.5 kilowatts and equal on and off times of 2.0 seconds. The intergration time was 900 milliseconds after a delay time of 120 milliseconds. A pole-dipole array was employed with "a = 50, 100, 150 meters".

Most of the line exhibits chargeabilities below 15 milliseconds. No area exhibits chargeability over 20 mileseconds and thus no strong anomalies occur. The resistivity responses range from a minimum of 148 ohm-meters to a maximum of about 2350 ohm-meters. There is some resitivity contrast on the line but without the benefit of geological mapping it is not possible to evaluate the data fully. The contrast could be due to a change in rock type. There is no strong evidence to suggest the presence of any metal-lically conductive material beyond normal background levels.

2.1 CONCLUSIONS AND RECOMMENDED FOLLOW-UP

The IP survey failed to detect any significant anomalies. A slight high of 16.5 milliseconds occurs near 1+00W at N=1, however this does appear to be significant. Further geological mapping may provide additional information to improve the interpretation. The line could be extended to the East to define the slight increase in chargeability values to the east. Proton Magnetometer work could also aid the interpretation as would geological mapping.

Paul A. Hawken

RÉFÉRENCES

Hawkins, P.A. 1981

A Geological and Geochemical Report on Exploration
Activities at Tchaikazan River Project, Taseko Lake
Area B.C. June - October 1981

Tipper, H.W. 1978

Taseko Lake 92 0/4 Map Area
Geological Survey of Canada

APPENDIX

- 1) Mineral Claim Listing - Tchaikazan River
- 2) Estimated Survey Costs - Induced Polarization Survey
- 3) Statements of Exploration and Development
- 4) Author's Qualifications
- 5) Notice to Group
- 6) IP Survey Claim Breakdown

MINERAL CLAIM LISTING
TCHAIKAZAN RIVER PROJECT
TAESKO LAKE AREA, B.C.

Mining Division: Clinton

RECORD #	CLAIM NAME	LOT #	UNITS	ANNIVERSARY DATE	IN GOOD STANDING UNTIL	HECTARES
7831	Wash M.C.	7831			1983	14.75
7832	Clean Up M.C.	7832			1983	20.90
7833	Bear M.C.	7833			1983	20.90
7834	Grin M.C.	7834			1983	20.90
7835	Sakes Fractional M.C.	7835			1983	20.90
7836	Ham M.C.	7836			1983	7.12
6190	Eggs		1	Aug. 24/45	1985	20.85
6968	Sugar		1	Aug. 14/53	1985	20.90
6969	Pork		1	Aug. 14/53	1985	20.90
6970	Beans		1	Aug. 14/53	1985	20.90
13212	Onion 1		1	June 16/66	1985	20.90
13213	Onion 2		1	June 16/66	1985	20.90
13214	Onion 3		1	June 16/66	1985	20.90
16923	A1		1	June 27/68	1985	20.90
16924	A2		1	June 27/68	1985	20.90
16925	A3		1	June 27/68	1985	20.90
16926	A4		1	June 27/68	1985	20.90
16927	A5		1	June 27/68	1985	20.90
16928	A6		1	June 27/68	1985	20.90
16929	A7		1	June 27/68	1985	20.90
16930	A8		1	June 27/68	1985	20.90
16931	A9		1	June 27/68	1985	20.90
16932	A10		1	June 27/68	1985	20.90
16933	A11		1	June 27/68	1985	20.90
16934	A12		1	June 27/68	1985	20.90
16935	A13		1	June 27/68	1985	20.90
16936	A14		1	June 27/68	1985	20.90
16937	A15		1	June 27/68	1985	20.90
16938	A16		1	June 27/68	1985	20.90
16939	A17		1	June 27/68	1985	20.90
16940	A18		1	June 27/68	1985	20.90
16941	A19		1	June 27/68	1985	20.90
16942	A20		1	June 27/68	1985	20.90

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TCHAIKAZAN RIVER PROJECT

RECORD #	CLAIM NAME	LOT #	UNITS	ANNIVERSARY DATE	IN GOOD STANDING UNTIL	HECTARES
547	Lyra		10	Dec. 7/79	1981 (1990)	250.00
548	Helena		20	Dec. 7/79	1981 (1983)	500.00
918	Cougar 1		12	Nov. 21/80	1981 (1985)	300.00
919	Cougar 2		20	Nov. 21/80	1981 (1985)	500.00
920	Cougar 3		18	Nov. 21/80	1981 (1984)	450.00
921	Cougar 4		8	Nov. 21/80	1981 (1987)	200.00
922	Cougar 5		18	Nov. 21/80	1981 (1985)	450.00
923	Cougar 6		18	Nov. 21/80	1981 (1991)	450.00
924	Cougar 7		20	Nov. 21/80	1981 (1986)	500.00
925	Cougar 8		20	Nov. 21/80	1981 (1984)	500.00
926	Echo 1		1	Nov. 25/80	1981 (1991)	20.90
927	Echo 2		1	Nov. 25/80	1981 (1991)	20.90
942	Echo 5		20	Dec. 16/80	1981 (1984)	500.00
965	Cougar 10		12	Feb. 6/81	1982 (1983)	300.00
983	Echo 3		1	Feb. 27/81	1982 (1982)	20.90
984	Echo 4		1	Feb. 27/81	1982 (1992)	20.90
985	Echo 7		1	Feb. 27/81	1982 (1992)	20.90
1059	Sun 1		20	July 15/81	1982 (1983)	500.00
1060	Sun 2		8	July 15/81	1982 (1988)	200.00
1061	Sun 3		2	July 15/81	1982 (1988)	50.00
1062	Sun 4		9	July 15/81	1982 (1989)	225.00
1063	Sun 5		20	July 15/81	1982	500.00
1064	Sun 6		20	July 15/81	1982	500.00
1065	Sun 7		20	July 15/81	1982 (1990)	500.00
1066	Sun 8		20	July 15/81	1982	500.00
1067	Sun 9		20	July 15/81	1982	500.00
1068	Sun 10		8	July 15/81	1982 (1992)	200.00
1069	Sun 11		12	July 15/81	1982	300.00
1070	Sun 12		20	July 15/81	1982 (1988)	500.00
1071	Sun 13		2	July 15/81	1982 (1984)	500.00
1093	Sun 14		15	Sept. 3/81	1982	375.00
1142	Sun 15		8	Nov. 2/81	1982	200.00
1143	Sun 16		20	Nov. 2/81	1982	500.00
1144	Sun 18		20	Nov. 2/81	1982	500.00
1145	Sun 19		20	Nov. 2/81	1982	500.00
1146	Sun 20		20	Nov. 2/81	1982	500.00
1147	Sun 21		12	Nov. /81	1982	300.00
					TOTAL	13,524.22

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ESTIMATED SURVEY COSTS

Induced Polarization Survey

Tchaikazan River Project

Fixed Costs

Mobilization-Demobilization	\$ 2,595.00
Report Preparation	3,220.00

Operating Costs

Hub Area Grid Survey	
23 miles each 500.00	11,500.00
19 days each 700.00	13,300.00
(June 8 - June 26)	

Hub Area Follow-up	
3 miles each 500.00	1,500.00
3 days each 700.00	2,100.00
(June 29 - July 1)	

HaHo Area	
1.8 miles each 500.00	900.00
2 days each 700.00	1,400.00
(June 27 - 28)	

Contractor	TOTAL	<u>\$36,515.00</u>
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Camp Support Costs (Suncor)

28 days x 5 men x 50 days	7,000.00
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Survey Total	43,515.00
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Survey Kilometers	44.73
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Cost per kilometer	972.84
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x 2.4

2334.82.

T.K.

Author's Qualifications

Paul Alan Hawkins P. Eng. B.Sc. (Eng)
2105, 920 - 9th Avenue S.W.
CALGARY, Alberta
T2P 2T9

Registered Professional Engineer, Province of Alberta

B.Sc (Eng) Queen's University 1977
Geological Engineering (Mineral Resources)

Work History

May 1981 - Present	Suncor Inc.	Project Geologist
May 1978 - March 1981	Pan Ocean Oil Ltd.	Project Geologist
Feb. 1978 - April 1978	Gulf Minerals	Drill Geologist
May 1977 - Jan. 1978	Asamera Oil	Junior Geologist
July 1976 - Dec. 1976	Urangessellschaft	Senior Assistant
May 1976 - July 1976	Hollinger Mines	Drill Geologist
May 1975 - Sept. 1975	HBOG Mining	Field Assistant
May 1974 - Sept. 1974	Duval Corp.	Field Assistant

I.P. Survey Claim Breakdown

SUN - 4	0.4
SUN - 5	0.8
SUN - 14	0.8
COUGAR - 8	<u>0.4</u>
	2.4 km



1900 x 54 = \$95.00

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources
MINERAL RESOURCES BRANCH—TITLES DIVISION
MINERAL ACT

STATEMENT OF EXPLORATION AND DEVELOPMENT

By Paul A. Hawkins Agent for Suncor Inc.
(Name) (Name)
P.O. Box 38
(Address) (Address)
Calgary, Alberta
Calgary, Alberta
 Valid subsisting F.M.C. No. 2A4686 Valid subsisting F.M.C. No. 244770

STATE THAT

1. I have done, or caused to be done, work on the SUN-14 Claim(s)
 Record No.(s) 1093
 Situated at Tchajkazan River in the Clinton Mining Division,
 to the value of at least 1462.07 dollars. Work was done from the 1st day
 of April 1982, to the 20 day of August 1982.

2. The following work was done in the 12 months in which such work is required to be done

(COMPLETE APPROPRIATE SECTION(S) A, B, C, D, FOLLOWING)

A PHYSICAL (Trenches, open cuts, adits, pits, shafts, reclamation, and construction of roads and trails) (Give details as required by section 13 of regulations.)		COST
.....		
.....		
.....		
.....		
.....		
.....		
.....		
.....		
.....		
.....		
TOTAL PHYSICAL		

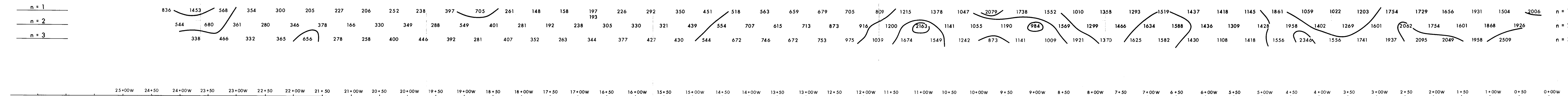
I wish to apply 3 years of physical work to the claims listed below.
 (State number of years to be applied to each claim, its month of record, and identify each claim by name and record no.)

C PROSPECTING (Details in report submitted as per section 9 of regulations.) (The financial cost statement must be part of the report.)		COST
.....		
.....		

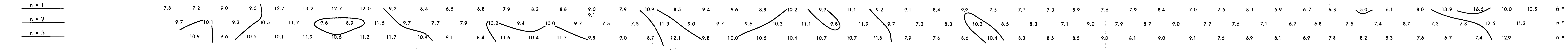
I wish to apply 3 years of this prospecting work to the claims listed below.
 (State number of years to be applied to each claim, its month of record, and identify each claim by name and record no.)

(For C and D sections please turn over.)

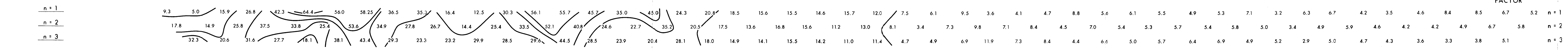
RESISTIVITY (ohms)



CHARGEABILITY (milliseconds)



CONDUCTIVITY FACTOR



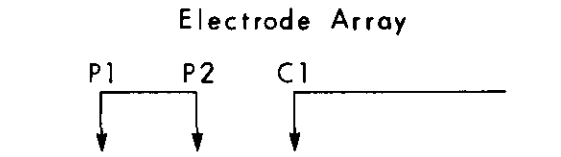
POND CREEK

HAHO SHOWING LOCATION

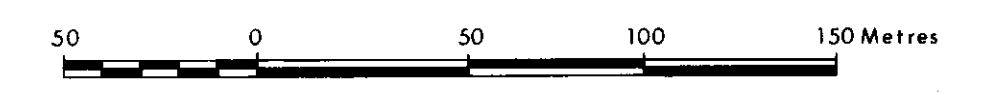
GEOLOGICAL BRANCH ASSESSMENT REPORT

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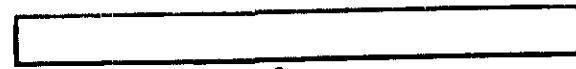
TEST LINE 0+00N ACROSS VALLEY



part 1 of 4



Suncor Inc. Resources Group		COAL AND MINERALS DEPARTMENT	
HAHO SHOWING IP SECTION 0+00N TCHAIKAZAN RIVER PROJECT TASEKO LAKE AREA, BRITISH COLUMBIA			
DATE July, 1982	SCALE 1" = 50 metres	N.T.S. 940/4	DRAWING No. 82-156
<small>REVISED AUG. 1982</small>			



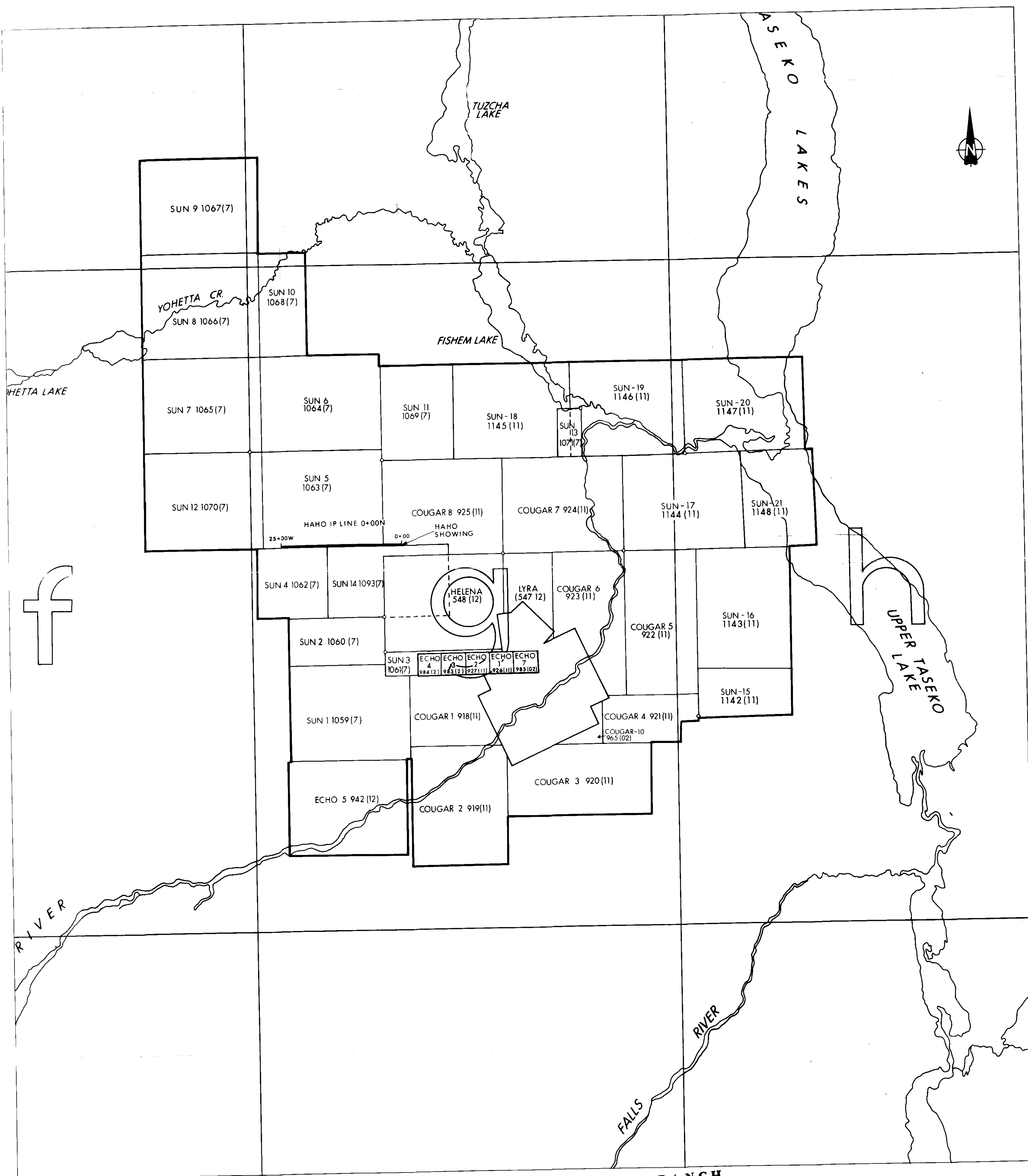
IRON MAIDEN®
U. S. A. DESIGN PATENT 4139248 1979
CANADIAN IND. DESIGN REG. NO. 42524
CANADIAN PATENT 1065729 1979



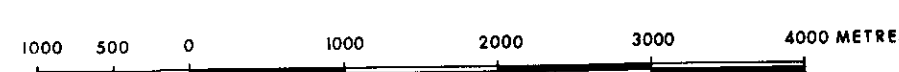
RD 1977

IRON MAIDEN® SYSTEMS LTD. CALGARY, ALBERTA, CANADA

IM 4.



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ASSESSMENT REPORT



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part 1
of 4

Suncor Inc. Resources Group		COAL AND MINERALS DEPARTMENT	
HAHO IP LINE 0+00N LOCATION MAP			
TCHAIKAZAN RIVER PROJECT TASEKO LAKE AREA, B.C.			
DATE July, 1982	SCALE 1:50,000	N.T.S. 920/4&5	DRAWING No. 82-157-B