



31M05SE2040 2.22766

LORRAIN

## REPORT ON TRENCHING and TILL SAMPLING ON THE PAN LAKE / ANDERSON LAKE PROPERTY LORRAIN TOWNSHIP, ONTARIO

for Cabo Mining Corp.

January 19, 2002

Seymour M. Sears



JAN 2 1 2002

GEOSCIENCE ASSESSMENT OFFICE

#### **SUMMARY**

The Pan Lake - Anderson Lake Property of Cabo Mining Corp. is located within the Cobalt Silver mining camp in northeastern Ontario (Figure 1). The property, located in South Lorrain Township (Figure 2), is part of a large land holding scattered through five Townships in the Cobalt area. The property contains numerous pits, trenches and shallow shafts dating back to the early 1900's in search of cobalt and silver. Recent work programs have located numerous xenolith bearing lamprophyre dykes. These resemble, in appearance, the diamond bearing lamprophyre dykes recently reported in the Wawa area.

This work program was designed to locate lamprophyre dykes and/or kimberlite in areas of thick overburden. When bedrock was too deep, till sampling was carried out in search of kimberlite indicators minerals (KIM's). Numerous dykes were located. Fifteen till samples were collected from areas of very deep overburden. The till samples were processed for heavy minerals by a gravity concentrator. Several areas of elevated KIM's were delineated.

Respectfully submitted,

Seymour M. Sears, B.A., B.Sc.

Geologist

Wawa, Ontario Jan 19, 2002

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#### INTRODUCTION AND LOGISTICS

This work report on stripping, prospecting and till sampling on Claims 1230446 and 1230454, part of the Pan Lake - Anderson Lake Property (Figures 1, 2), has been prepared on behalf of Cabo Mining Corp. of Vancouver, British Columbia. The contents of the report is based on supervision, prospecting, geological mapping and sampling carried out in September and October of 2000 and in September of 2001 by personnel of Sears, Barry and Associates Ltd. Work was based from a trailer camp located at Bucke Park campgrounds until October 19th 2000 and from the Haileybury Beach Motel from thence onwards.

A backhoe was used for stripping and till sampling from October 24<sup>th</sup> to 30<sup>th</sup> 2000. The hoe and operator were contracted from Pederson Construction of New Liskeard Ontario. A John Deere 310 Backhoe and tractor was utilized on the following dates: Oct 24 (10 hours + mob), Oct 25 (10 hours), Oct 26 (10 hours), Oct 27 (8 hours), Oct 30 (10 hours). The cost included operator and machine at \$55.00 per hour.

In September of 2001, an excavator was utilized to strip two additional areas (September 9<sup>th</sup>, 8 hours @ \$65.00 per hour). The excavator was owned and operated by Lathern Construction Ltd.of North Cobalt Ontario.

### PROPERTY LOCATION AND ACCESS

The detailed work covered only a small portion of a huge land position in the area. It focused on a grid covered area on the east side of Pan Lake. Three old shafts and abundant old trenches and pits are located in this area. The area is located in the north central part of Claim L 1230446 and the eastern part of L 1230454 in the southern part of Lorrain Township, Larder Lake Mining Division, Ontario. The claims are shown on Figure 2, a portion of claim Index Map G - 3438.

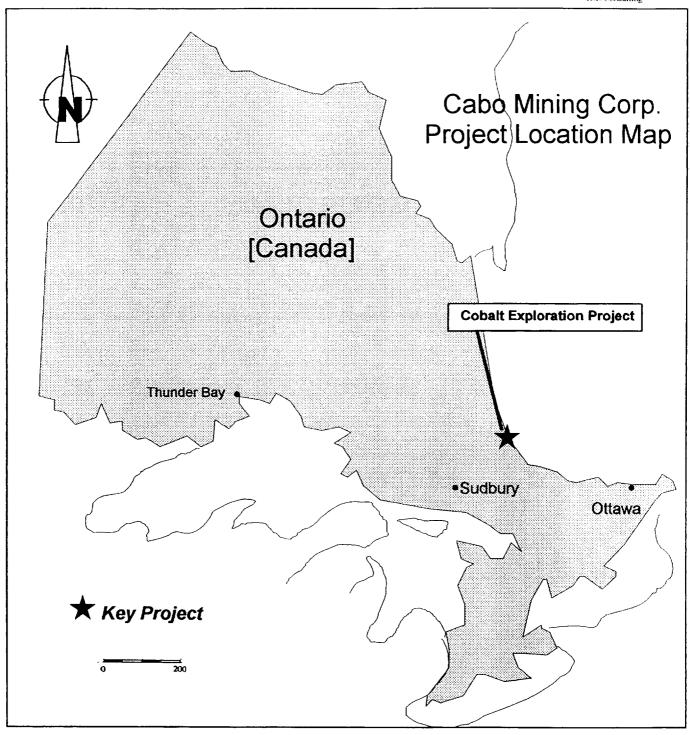
The grid is accessed by a gravelled logging road that departs from the Houndchutes road, an Ontario Hydro access road (from the town of Cobalt) on the eastern side of the Montreal River. Numerous other old roads and ATV trails provided access to other parts of the property.

## TOPOGRAPHY AND VEGETATION

Maximum relief on the grid area is approximately 25 metres. Topography is generally rolling with local steep ledges and cliffs. The most uneven terrain is along the southwestern part on the north side of Anderson Lake. The grid surrounds Pan Lake and terminates at Anderson Lake on the south side. Both of these lakes and all smaller creeks drain eastwards into Latour Lake and ultimately into Lake Temiskaming. Away from the grid area and in South Lorrain Township, relief is often extreme with local 50 metre vertical cliffs.

Figure 1

D.J. Consulting



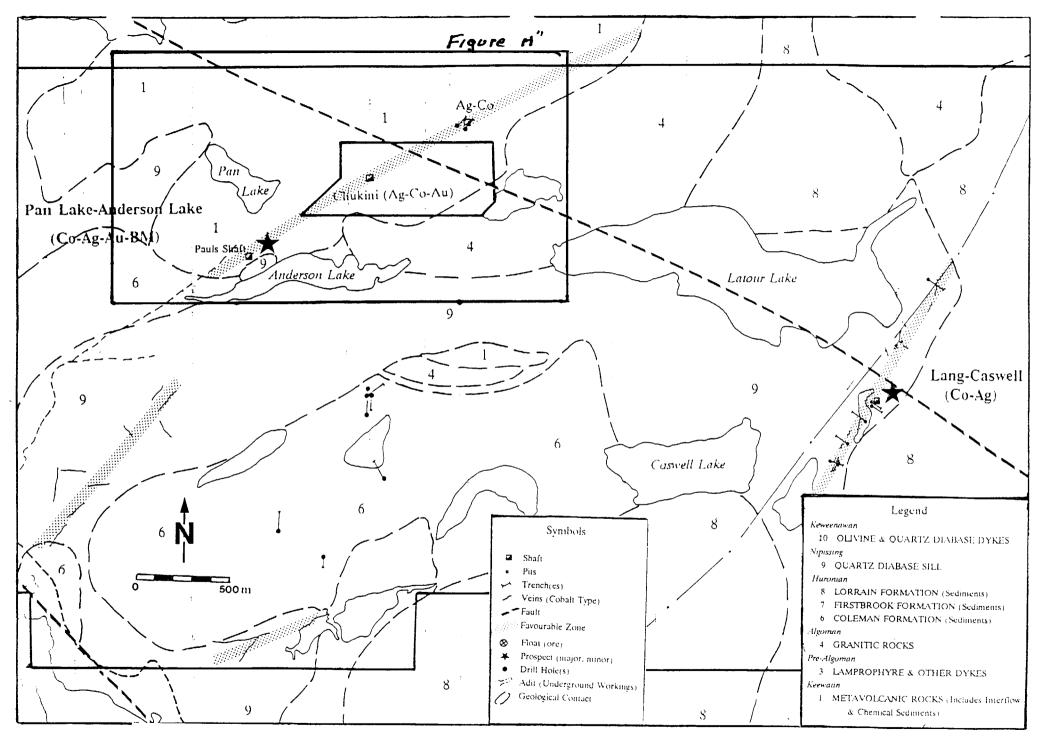


Figure **a**) Map showing target areas in the southern part of Lorrain Township, Cabo Mining Corp., Cobalt Area, Ontario.

Overburden is relatively shallow over most of the grid. However, the favourable area for lamprophyre and possible kimberlite emplacement has extensive overburden. Approximately 50% of the grid has been recently cut over and is rapidly growing up to dense scrub brush. Vegetation on the remaining 50% of the property and in other parts of the claim group consists mainly of poplar, birch, cedar and locally dense underbrush.

#### **EXPLORATION HISTORY**

Work reports from the assessment files of the OGS on the grid area dates back to the early 1920's. The following summary includes significant reported work.

R. Thompson (ODM) - numerous notes and sketches completed while working in the area from the 1950's to 1972.

Fred Giroux completed extensive workings in the eastern part of the grid area prior to 1949. This included at least three shafts. No data relating to the work was found.

Vanadium Exploration completed drilling in the Giroux shaft area in 1949 - 1950.

The claims were acquired by local prospectors and optioned to Branchwater Resources Ltd. in 1998. In 1999 the Branchwater commitments were assumed by Cabo Mining Corp. and a reconnaissance work program involving rock, soil and stream sampling was completed in the south part of Lorrain and Gillies Limit Townships. During June and July of 2000, geological mapping was carried out over the grid.

#### REGIONAL AND PROPERTY GEOLOGY

The area is located in the southern part of the Cobalt mining camp and north of the Silver City mining camp and thus has not been well studied. It was mapped by the Ontario Geological Survey in 1978 (Lovell et al.). The grid area covers an inlier of Archean volcanic rocks. This inlier is bounded beyond the grid on the northeast side by Lorrain Granite Batholith and on the southwest and south by a Nipissing Diabase sill. Previous workers (Thompson, 1970's) propose that a syenite body underlies much of the eastern end of the grid at shallow depth. On a regional scale these Archean inliers occur within extensive areas underlain by Huronian Sediments and Nipissing Diabase. Several types of Lamprophyre crosscut the Archean rocks in the area.

There are numerous very deep pits, extensive trenches and at least 3 shafts within the grid area. Mineralization observed includes pyrite, chalcopyrite, cobalt minerals, galena, magnetite and pyrrhotite.

#### **WORK PROGRAM AND RESULTS**

Twelve mandays were spent with the backhoe attempting to retrieve till samples and to observe and sample the bedrock. Fifteen till samples were obtained (Descriptions, locations and indicator mineral results in Appendix I, location plan as Figure A) Four lamprophyre dykes were located. Plans for each of the 15 trenches are included (Figure F to T).

The till samples contain relatively high amounts of selected kimberlite indicator minerals ranging from 1 (Pt-2) to 72 (Pt-11). A distinct trend of elevated KIM's includes samples Pt-11, Pt-12, Pt-13, Pt-7, Pt-8 and Pt-10. This trend extends from Pan Lake in a northeast direction through the area of relatively thick overburden. Since depth to bedrock in this area is unknown, several shallow drill holes are recommended along this trend to sample the underlying bedrock.

#### **CONCLUSIONS AND RECOMMENDATIONS**

The till sampling and prospecting program on the Pan Lake - Anderson Lake property of Cabo Mining Corp. has located numerous exposures of lamprophyre dyke. Several of these are xenolith bearing. A linear trend of elevated KIM's in till samples should be tested by diamond drilling.

Sudbury, Ontario January 19, 2002

Respectfully submitted,

Seymour M. Sears, B.A., B.Sc.

Geologist

#### REFERENCES

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1990: Precambrian Geology of the Bay Lake Area; O.G.S Report 276, Accompanied by Maps 2551 and 2552; Scale 1:20,000.

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Morris, TF, Murray, C. and Crabtree, D. 1994, Results of Overburden Sampling for Kimberlite Heavy Mineral Indicators and Gold Grains, Michipicoten River - Wawa Area; Ontario Geological Survey Open File Report 5908, 69 p.

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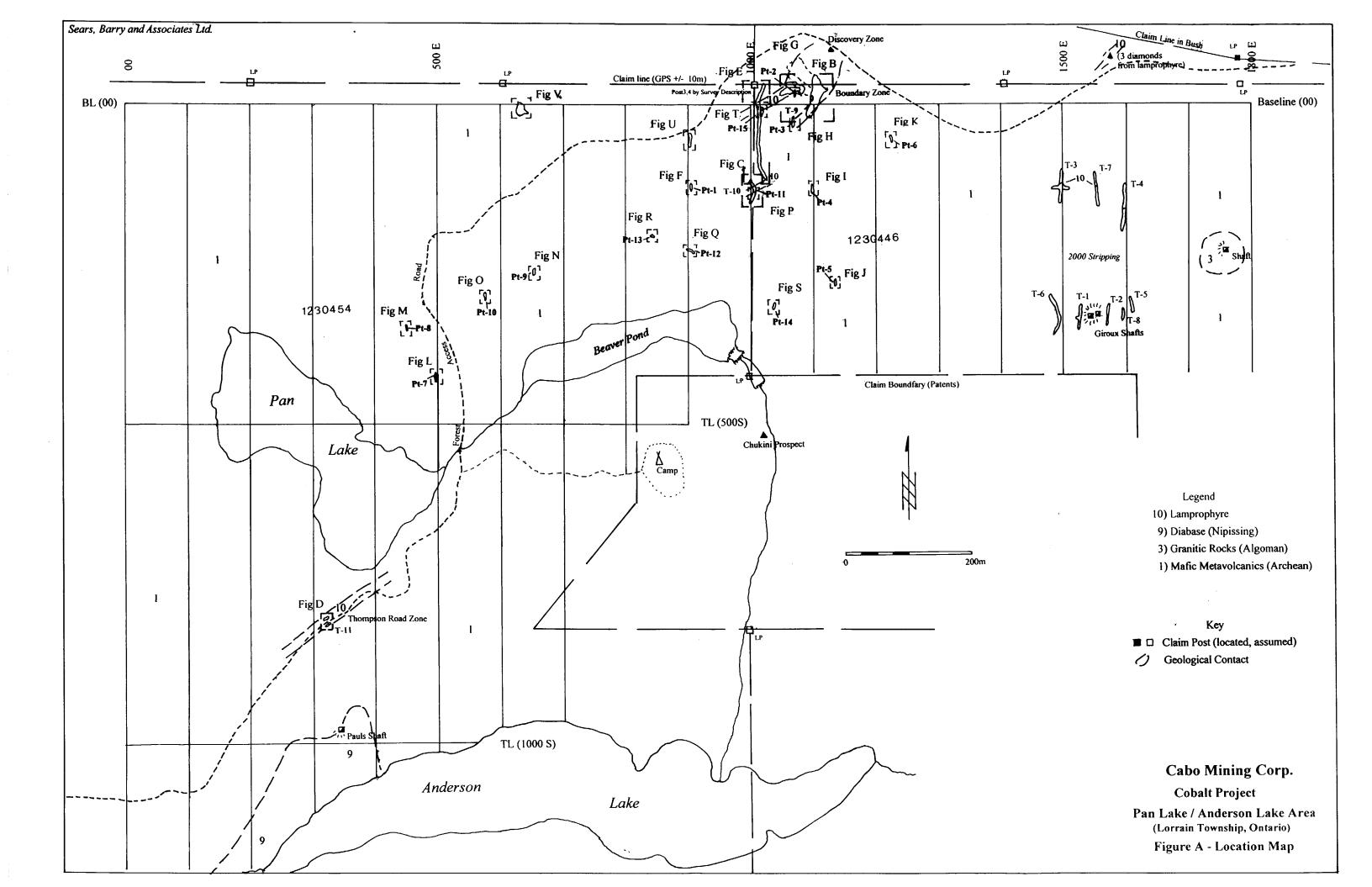
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2000 Kimberlites of the Lake Timiskaming Structural Zone: Supplement; Ontario Geological Survey Open File Report 6018.

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## Appendix I

Cabo Mining Corp. - Cobalt Area Project Lorrain Township

**Alluvial Sample Processing Results** 

## Appendix II

Cabo Mining Corp. - Cobalt Area Project Lorrain Township

**Trench Sketches** 

## **Pan-Anderson Till Sampling**

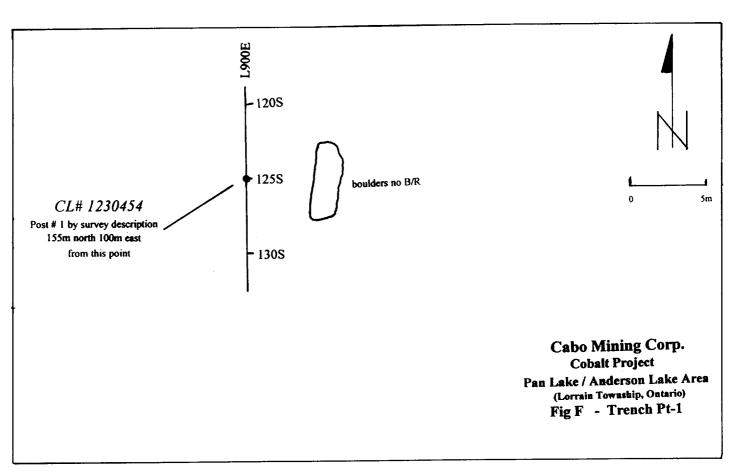
SAMPLE #	Northing	Easting	Depth	Bedrock
PT-1	125S	905E	2 metres	No B/R - Large boulders
PT-2	5N	1055E	1 metres	Mafic B/R, blocky. Lampropyre
PT-3	15S	1060E	3 metres	No B/R
PT-4	125S	1100E	2 metres	Mafic B/R
PT-5	275S	1135E	2 metres	Mafic B/R - with sulphides
PT-6	50S	1225E	3 metres	Mafic B/R
PT-7	425S	500E	1 metres	Mafic B/R
PT-8	350S	450E	1 metres	Mafic B/R - weakly deformed
PT-9	260S	650E	1 metres	Mafic B/R
PT-10	300S	575E	1 metres	Mafic B/R
PT-11	140S	1005E	3 metres	No B/R Many lamprophyre boulders
PT-12	225S	900E	4 + metres	
PT-13	205S	840E	1/2 metres	
PT-14	315S	1035E	2 metres	Mafic B/R - Narrow sulphide vein (Py,Po)
PT-15	5S	1005E	1 metres	Lamprophyre

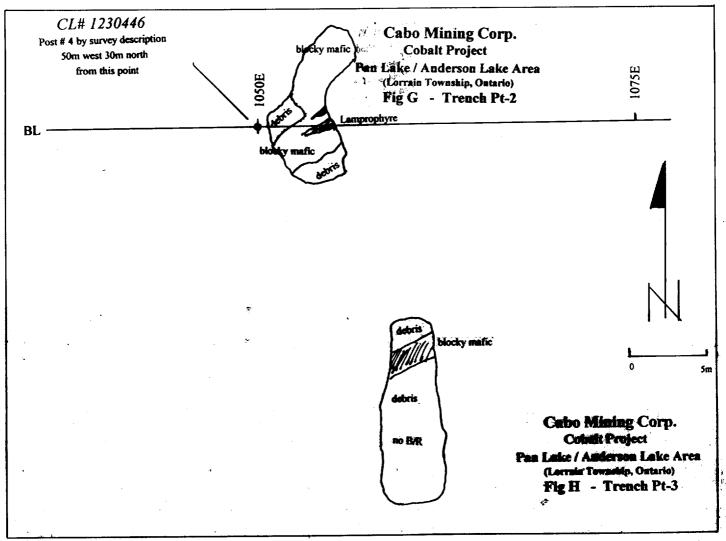
## TABLE II Cabo Mining Corp Pan Lake Area Sample Screening Information

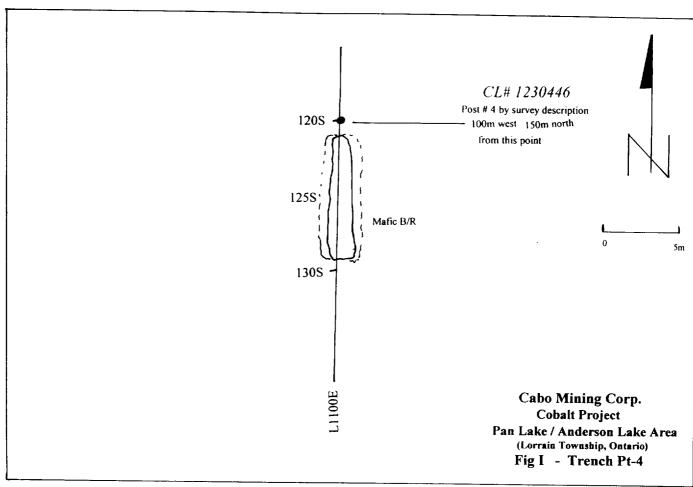
SAMPLE No.	GROSS WEIGHT	MESH > .85 mm	MESH .5 > .85 mm	MESH .3 > .5 mm	MESH < .3 mm
PT 1 PT 2 PT 3 PT 4 PT 5	2.785 Kg. 2.47 Kg. 1.88 Kg.	1.405 Kg. 2.105 Kg. 1.605 Kg. 0.64 Kg. 0.53 Kg.	0.405 Kg. 0.12 Kg. 0.13 Kg. 0.18 Kg. 0.155 Kg.	0.47 Kg. 0.105 Kg. 0.105 Kg. 0.18 Kg. 0.14 Kg.	4.005 Kg. 0.455 Kg. 0.63 Kg. 0.88 Kg. 0.57 Kg.
PT 6 PT 7 PT 8 PT 9 PT 10	2.12 Kg. 2.345 Kg. 1.97 Kg.	0.68 Kg. 0.88 Kg. 0.92 Kg. 0.215 Kg. 0.23 Kg.	0.115 Kg. 0.47 Kg. 0.21 Kg. 0.115 Kg. 0.12 Kg.	0.13 Kg. 0.29 Kg. 0.325 Kg. 0.205 Kg. 0.18 Kg.	0.57 Kg. 0.48 Kg. 0.89 Kg. 1.435 Kg. 1.305 Kg.
PT 11 PT 12 PT 13 PT 14 PT 15	1.92 Kg. 2.28 Kg.	0.59 Kg. 0.765 Kg. 0.405 Kg. 0.815 Kg. 1.755 Kg.	0.155 Kg. 0.205 Kg. 0.555 Kg. 0.18 Kg. 0.705 Kg.	0.18 Kg. 0.24 Kg. 0.305 Kg. 0.23 Kg. 0.71 Kg.	1.105 Kg. 1.155 Kg. 0.655 Kg. 1.055 Kg. 1.105 Kg.

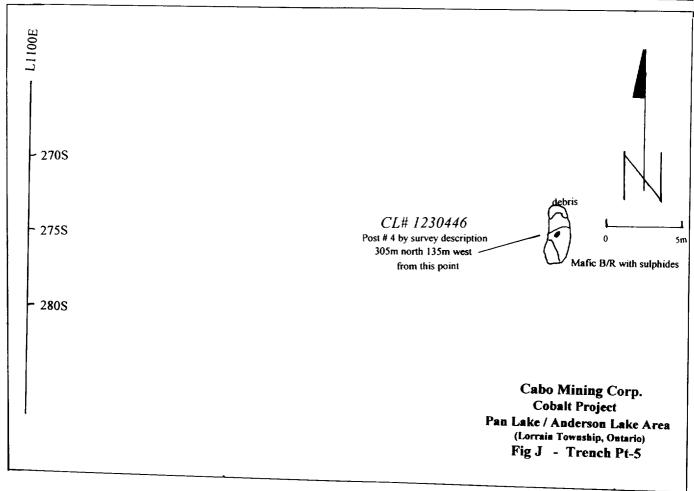
# TABLE III Cabo Mining Corp Pan Lake Area Indicator Mineral Results

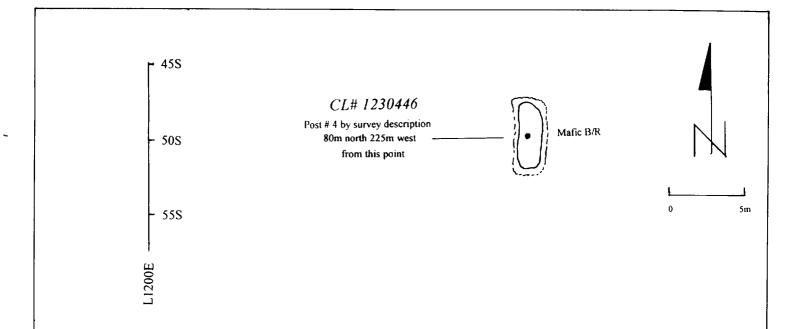
SAMPLE No.	Pyrope Garnets	Chrome Diopside	Ilminite	Chromite	Gold		TAL M's
PT 1	10		3	2	1	0	16
PT 2	1		0	0	0	1	16
PT 3	9		3	2 3	1	'n	18
PT 4	13		1	ა 1	0	Ô	12
PT 5	/		4	1	· ·	•	
PT 6	2		1	0	0	0	3
PT 7	23		2	6	0	0	31
PT 8	13		0	7	5	0	25
PT 9	2		1	6	3	0	12
PT 10	9		1	12	5	0	27
PT 11	65	<b>,</b>	3	3	1	0	72
PT 12	23		2	15	8	0	48
PT 13	9		1	8	3	0	21
PT 14	5		0	2	1	0	8
PT 15	8	3	1	3	4	0	16



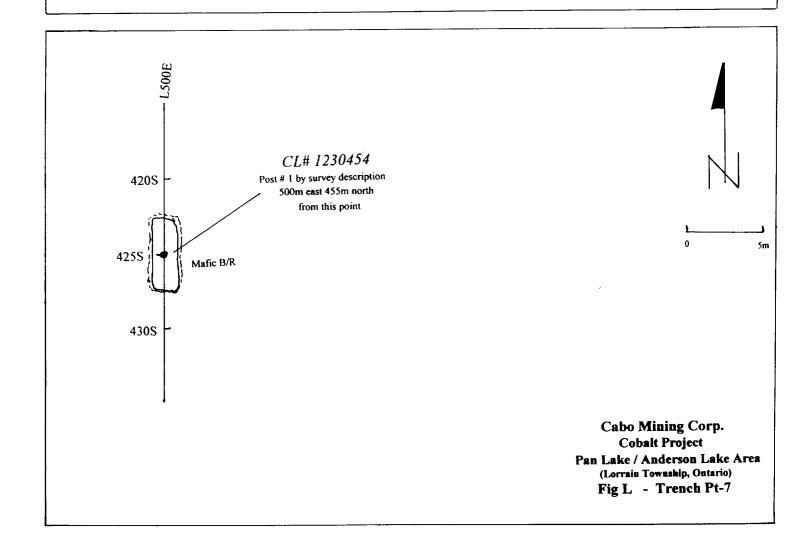


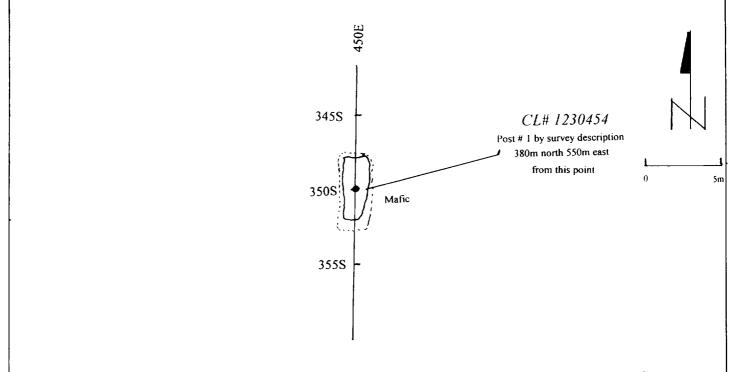


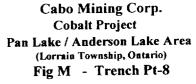


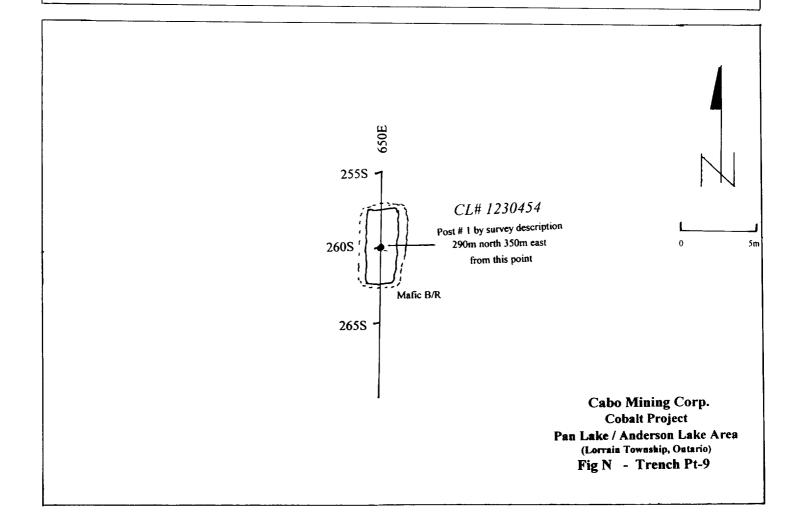


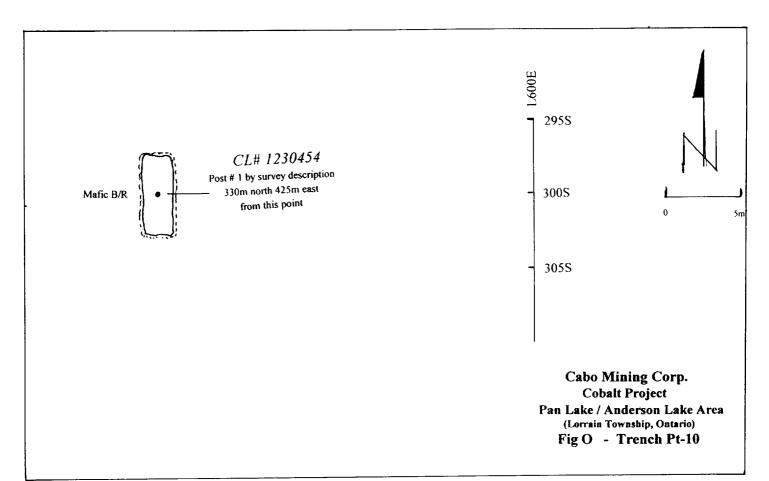
Cabo Mining Corp.
Cobalt Project
Pan Lake / Anderson Lake Area
(Lorrain Township, Ontario)
Fig K - Trench Pt-6

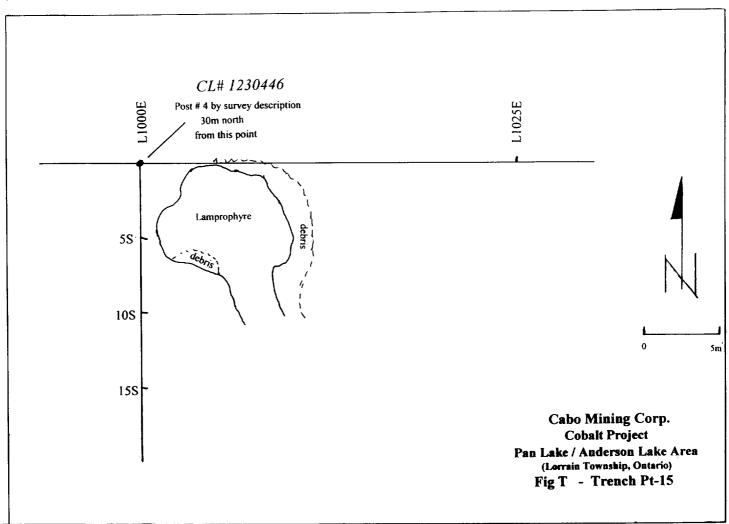


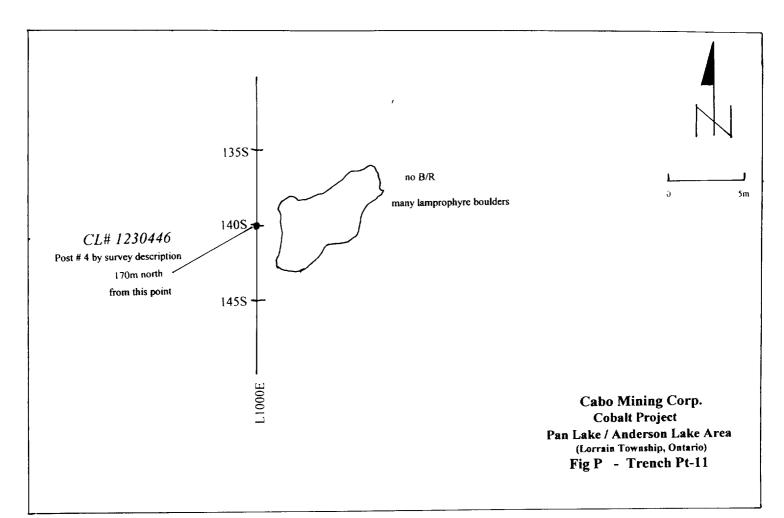


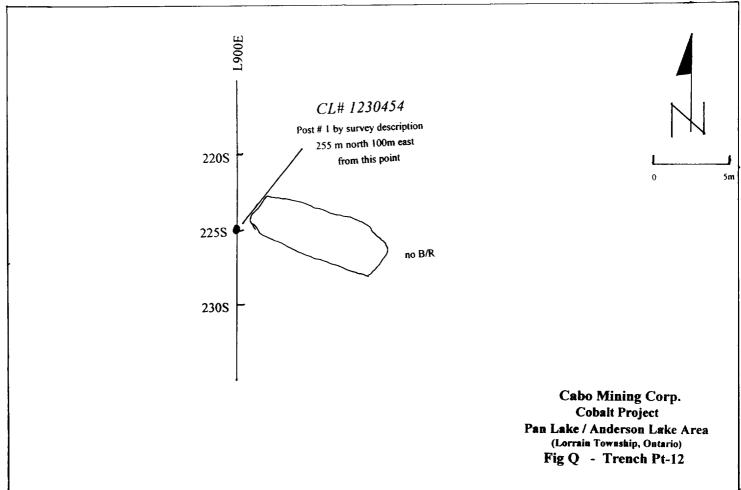


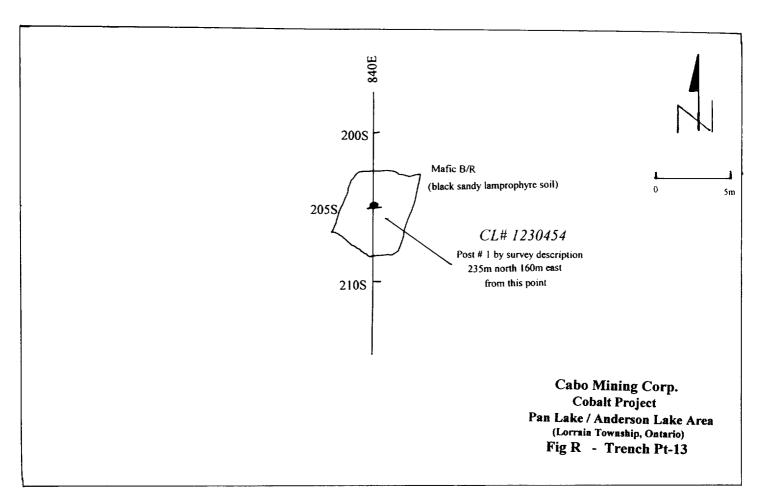


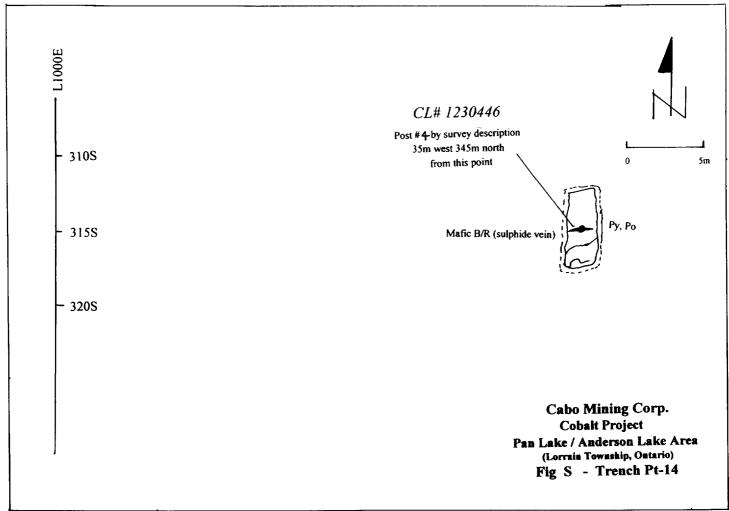


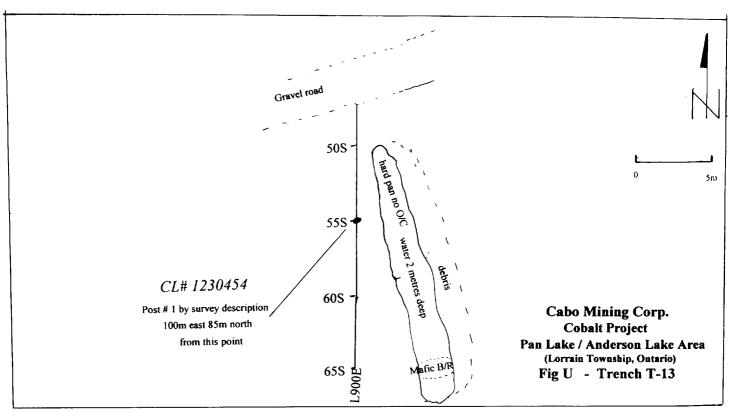


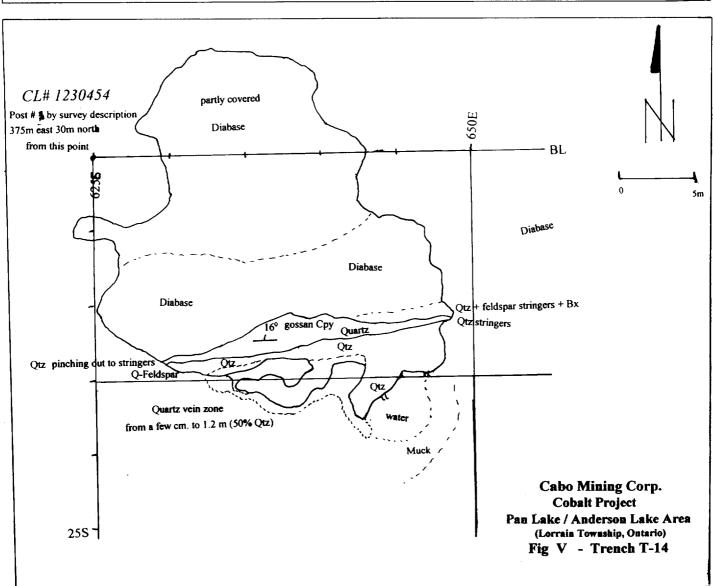














### **Work Report Summary**

Transaction No:

W0280.00087

Status: APPROVED (D)

**Recording Date:** 

2002-JAN-21

Work Done from: 2000-OCT-24

Approval Date:

2002-APR-21

to: 2002-JAN-20

Client(s):

178510

**OUTCROP EXPLORATIONS LIMITED** 

302234

SIMPSON, MURRAY D

Survey Type(s):

BENEF

**PSTRIP** 

Work Report Details:									
Claim#	Perform	Perform Approve	Applied	Applied Approve	Assign	Assign Approve	Reserve	Reserve Approve	
L 1230445	\$0	\$0	\$6,400	\$6,400	\$0	0	\$0	\$0	2002-JUL-21
L 1230446	\$5,167	\$5,167	\$0	\$0	\$5,167	5,167	\$0	\$0	2002-JUL-21
L 1230454	\$5,143	\$5,143	\$0	\$0	\$1,233	1,233	\$3,910	\$3,910	2002-JUL-21
	\$10,310	\$10,310	\$6,400	\$6,400	\$6,400	\$6,400	\$3,910	\$3,910	-

**External Credits:** 

\$0

Reserve:

\$3,910 Reserve of Work Report#: W0280.00087

\$3,910

Total Remaining

Status of claim is based on information currently on record.



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LORRAIN

Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines

Date: 2002-MAY-13



GEOSCIENCE ASSESSMENT OFFICE 933 RAMSEY LAKE ROAD, 6th FLOOR SUDBURY, ONTARIO P3E 6B5

Tel: (888) 415-9845 Fax:(877) 670-1555

OUTCROP EXPLORATIONS LIMITED 12 MARTIN DRIVE COBALT, ONTARIO POJ 1C0 CANADA

Dear Sir or Madam

**Submission Number:** 2.22766 **Transaction Number(s):** W0280.00087

#### **Subject: Deemed Approval of Assessment Work**

We have approved your Assessment Work Submission with the above noted Transaction Number(s) as per 6(7) of the Assessment Work Regulation. Only eligible assessment work is deemed approved for assessment work credit. The attached Work Report Summary indicates the results of the approval.

NOTE: The report has not been reviewed for technical deficiencies and reported expenses were not evaluated based on the Industry Standard.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

If you have any question regarding this correspondence, please contact BRUCE GATES by email at bruce.gates@ndm.gov.on.ca or by phone at (705) 670-5856.

Yours Sincerely,

Ron Gashinski

Senior Manager, Mining Lands Section

mc codal.

Cc: Resident Geologist

Outcrop Explorations Limited

(Claim Holder)

Murray D Simpson (Claim Holder)

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