GOLDMAC EXPLORATIONS INC.

BEN NEVIS TOWNSHIP SILVER-GOLD PROSPECT

ONTARIO

JULY 15, 1982

HARPER CONSULTING SERVICES INC.

GOLDMAC EXPLORATIONS INC.

BEN NEVIS TOWHSHIP SILVER-GOLD PROSPECT

ONTARIO

INTRODUCTION

During the Spring and early Summer of 1982 follow-up surveys were completed on Goldmac's 16 claim group located in Ben Nevis Township Larder Lake Mining Division, Ontario. The work done included geological mapping, prospecting, and radiometric surveying. This report summarizes the results of this work.

Previous reports to the Company have detailed such topics as claim numbers, location, history, facilites, etc. and these items need not be repeated here. Sufficient to say that the Forest Access Road leading northward from Larder Lake has been extended and now passes in a northeasterly direction through the middle of the property. This improved access has greatly facilitated exploration in the area.

The work program was planned, directed, and executed by the writer of this report, assisted by John R. Lill, P.Eng., of Toronto and John Essery, prospector of Noranda and Sudbury.

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LINE CUTTING

A secondary grid with a northeast striking baseline was set up in the vicinity of the Main Showing as a control for a future diamond drill program.

VLF ELECTROMAGNETIC AND MAGNETIC SURVEYS

Electromagnetic and magnetic surveys were done over the small grid system described above. The results were entirely negative. Electromagnetic and magnetic surveys have been completed on the 400 foot grid and on a 200 foot detailed grid in two directions. None of the results can be interpreted with certainty. Earlier more sophisticated surveys by other operators were equally uninformative. Even the diabase dike gave little magnetic response.

RADIOMETRIC SURVEY

The entire property was surveyed on 400 foot lines using a McPhar TC33A scintillometer. Readings were recorded at each 100 foot station but the instrument was never turned off so the survey was much more extensive than the recorded readings suggest. No radioactivity of consequence was encountered. Outcrop patterns are recorded on the geological plan.

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GEOLOGICAL MAPPING

The geological mapping was done on the same scale as the radiometric survey. Large outcrops are non-existent on this claim group and most of the exposures occur along the edges of short drops and are usually moss covered. A Table of Formations follows.

Table of Formations

Recent		peat, sand, gravel, clay.
	Great Unconformity	
Precambrian	hydrothermal activity	lead & zinc sulphides carrying silver & gold.
	Intrusive Contact	diabase dikes
	Folding & Major Faulting	
	Archean	acidic volcanics intermediate volcanics tuffs, agglomerates & flows.

Lithologically, the mapping was not rewarding in the amount of information gained. In the acidic rocks the rhyolites and dacite tuffs and agglomerates appear to be totally interbedded and tops and bottoms were not distinguishable. No horizon marker was detected. Shearing effects have clouded strike observations and carbonate alteration is erratic in distribution and most variable in intensity.

Diabase or dolerite dikes were observed at four locations,

only one of which was traceable for any length. Two of the dikes strike northeasterly and 2 seem to strike northwesterly but this may not be an accurate observation.

Two regional northeasterly fault zones strike through the claim group. The Murdoch Creek Fault could not be seen and its location on Map 2283 is inaccurate. The Road Shear Zone is a much weaker structure. The northeasterly fault along which a diabase dike has intruded appears to join the 2 major shear structures and seems to have acted as the main channelway for the hydrothermal solutions which deposited the lead, zinc, silver, and gold values.

PROSPECTING SURVEY

The prospecting survey has produced some interesting economic mineral data and this technique appears to be more productive than geophysical surveying. The prospecting was done independently of all the other surveys although John Essery, the prospector, had all information at his disposal. The work involved a great deal of moss pulling, scraping, and rock breaking.

Altogether 85 rock samples were collected. A few were straight rock but almost all showed evidence of mineralization - either quartz veining or sulphides (pyrite) as disseminations, in seams, or as fracture fillings. Three types of pyrite were

recognized:

1. a common yellow variety;
2. a brassy, greenish toned pyrite which may carry some copper;
3. a fine grained, massive, whitish pyrite that has a colour near that of arsenopyrite.

Each rock sample was examined by the writer with a hand lense and 46 of the 84 were assayed. Each sample was assayed for silver - the predominant valuable mineral in the area so far as is known. Some of the samples were also assayed for cobalt, lead, zinc, and gold.

The sample locations and the assay results are plotted on the accompanying Prospecting Plan. According to the assayer (X-Ray Assay Laboratories Ltd.) the Trace silver values are real. With one exception the trace values occur along or adjacent to the cross fault and therefore this must be the most favourable environment for mineralization. Since all early geophysical surveying was done on N-S lines, and since this structure strikes N40E, one must conclude that the prospecting results clearly indicate that the geophysical surveying was not done in the direction most likely to detect anomalous conditions due to sulphide mineralization. It should also be noted that the detailed VLF and magnetic surveys done during this program were done along north west lines and still failed to detect any evidence of the mineralized zone.

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The concentration of silver values and indications in and adjacent to the cross fault and diabase dike clearly indicate that these structures require closer prospecting. However, incomplete preliminary diamond drill results suggest that the geological relationship may be more complex than is apparent from the Prospecting Plan.

Low silver values are recorded from two other locations on the property: Sample BN57 and from an old Amax drill hole located about 400 feet to the southwest. More prospecting should be done in this area.

CONCLUSIONS AND RECOMMENDATIONS

1. Logging operations are now underway on the property and this will eliminate the 2 line grids now in existence. However, with the road passing roughly parallel to the baseline, it should not be difficult to locate all salient features.

2. Detailed VLF and magnetic surveys at right angles to the main diabase dike-fault zone failed to locate anomalous conditions.

3. Nothing of interest was found by the radiometric survey.

4. The geological survey established the true location of the Murdoch Creek Fault Zone on the claim, located the Road Shear

.../7

Zone, and roughly outlined the relationship between the cross fault zone, the main diabase dike, and the silver, gold, lead, and zinc values.

5. The prospecting clearly showed where the mineralization is concentrated and outlined two other areas for more detailed work.

6. It is recommended that detailed prospecting and mapping be done

   1) along the strike of the cross fault-diabase dike;
   2) in the area bounded by lines 8E and 16E, and between lines 4N and 12N;
   3) in the area of Line 12, 300S.

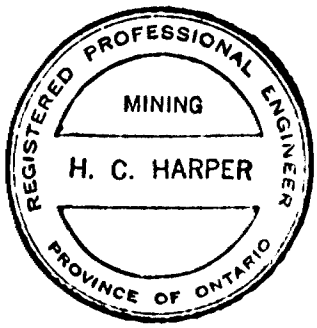
This report is respectfully submitted.

HARPER CONSULTING SERVICES INC.

H. G. Harper

Willowdale, Ontario
July 15th, 1982.

H. G. Harper, P.Eng.
President.



TOKARSKY CORPORATE SERVICES LIMITED

SUITE 806
88 UNIVERSITY AVENUE
TORONTO, ONTARIO
M5J 1T6
TELEPHONE: 593-6608

October 18, 1982.

TO WHOM IT MAY CONCERN:

This is to certify that the attached invoices from X-RAY ASSAY LABORATORIES LTD. totalling $2,277.50 have been paid and are applicable to assays for gold, silver, copper, lead and zinc, and to spectographic rock analysis of surface and drill core samples from the Ben Nevis property of Goldmac Explorations Inc.

All of the analytical results have been submitted previously on drill core logs and prospecting maps or are attached.

Per: _____
Tokarsky Corporate Services Limited
(John T. Tokarsky)

Per: _____
Goldmac Explorations Inc.
(H. Grant Harper)

X-RAY ASSAY LABORATORIES, LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15576 REF. FILE 11304-US 20-AUG-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
9-AUG-82

10 W.CORES

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
10	AU,AG	FA	10, 7	12.00	120.00 ✓
10	PREP. WHOLE CORE		1, 0	2.50	25.00 ✓
					$ 145.00 ✓

INVOICE PLEASE PAY THIS AMOUNT

OK

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15769 REF. FILE 11430-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

WERE ANALYSED.

	METHOD	CODE	UNIT COST	AMOUNT
13	30 ELEMENT ANALYSIS	13, C	20.00	260.00
				$ 260.00

O.K

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15258 REF. FILE 10940-Q5 19-JUL-82

TO: GOLDMAC EXPLORATION
SUITE 808, 88 UNIVERSITY AVENUE
TORONTO, ONTARIO
M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
5-JUL-82

5 ROCKS

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
5	AG	FA	10, 0	7.00	35.00
5	PREP. ROCK		1, 0	2.50	12.50
					$ 47.50

INVOICE PLEASE PAY THIS AMOUNT

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15357 REF. FILE 11091-S6 28-JUL-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
19-JUL-82

40 W.CORES

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
40	AU.AG	FA	10.7	12.00	480.00 ✓
40	PREP. WHOLE CORE		1.0	2.50	100.00 ✓
					$ 580.00 ✓

OK.

E.

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15435 REF. FILE 11165-M3 06-AUG-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
26-JUL-82

34 W.CORES

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
34	AU,AG	FA	10, 7	12.00	408.00 ✓
34	PREP. WHOLE CORE		1, 0	2.50	85.00 ✓
					$ 493.00 ✓

INVOICE PLEASE PAY THIS AMOUNT

OK

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 14949 REF. FILE 10669-J5 10-JUN-82

TO: GOLDMAC EXPLORATION
SUITE 808, 88 UNIVERSITY AVENUE
TORONTO, ONTARIO
M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
3-JUN-82

8 ROCKS REC'D FROM H.G.HARPER

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
3	AU,AG	FA	10, 7	12.00	36.00
5	AG	FA	10, 0	7.00	35.00
8	PREP. ROCK		1, 0	2.50	20.00
					$ 91.00 ✓

INVOICE PLEASE PAY THIS AMOUNT

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

INVOICE 15009 REF. FILE 10729-R5 21-JUN-82

TO: GOLDMAC EXPLORATION
SUITE 808, 88 UNIVERSITY AVENUE
TORONTO, ONTARIO
M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
9-JUN-82

33 ROCKS

WERE ANALYSED.

		METHOD	CODE	UNIT COST	AMOUNT
8	AU,AG	FA	10, 7	12.00	96.00 ✓
25	AG	FA	10, 0	7.00	175.00 ✓
1	CO %	XRF	5, 0	7.00	7.00 ✓
3	ZN %	XRF	5, 0	7.00	21.00 ✓
3	PB %	XRF	5, 0	7.00	21.00 ✓
32	PREP. ROCK		1, 0	2.50	80.00 ✓
					$ 400.00 ✓

OK

TERMS NET 30 DAYS 1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

X-RAY ASSAY LABORATORIES
LIMITED

1885 LESLIE STREET • DON MILLS ONTARIO M3B 3J4 • (416) 445-1755

INVOICE TO

GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

COPY TO

SUBMITTED TO

GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

INVOICE NO.	INVOICE DATE	WORK ORDER NO.	DATE SUBMITTED
16038	04-OCT-82	11779	22-SEP-82

TERMS

TERMS NET 30 DAYS
1.5% PER MONTH INTEREST ON ACCOUNT OVER 30 DAYS

CLIENTS P.O. NO.	CLIENT PROJECT NO		TYPE OF SAMPLES SUBMITTED
			WHOLE CORE

NO. OF PKGS	SHIPPED VIA	WAY BILL NO.	SHIPPED FROM
17 BAGS	SELF		

	QUANTITY	DESCRIPTION METHOD	XRAL CODE	UNIT COST	AMOUNT
1.	18	AU, AG FA	10, 7, 0, 0, 0	12.00	216.00
2.	18	PREPARATION WHOLE CORE	1, 0, 0, 0, 0	2.50	45.00
					$ 261.00

MISC. CHARGES

SHIPPING CHARGES	CUSTOM BROKERAGE	TELEX	MINIMUM CHARGES
OTHER			SURCHARGE - RUSH SERVICE

TOTAL IN CANADIAN FUNDS $ 261.00

ORIGINAL INVOICE

GOLDMAC EXPLORATIONS INC.

BEN NEVIS TOWNSHIP PROPERTY

1982 DRILL PROGRAM

ADDENDUM NO. 1

The drill cores clearly showed that low values of lead, zinc, and silver occur irregularly within a much larger mass of pyrite mineralization. The obvious question was: is there any other valuable metal in the sulphides and can it be detected by 30 element spectrographic analyses?

The pulps of 13 original drill core samples (analysis sheets and drill logs for correlation) were analysed spectrographically for 30 elements. Nothing of great interest or potential was returned by the analyses. In addition to the normal complement of metals all samples contained Traces of Zirconium; Faint Traces of Gallium and Vanadium; and three contained Traces of Arsenic.

The original samples came from drill holes BN82-1 to BN82-4 inclusive.

W. G. Hetherington

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER NO. 406

DATE SUBMITTED
18-AUG-82

REPORT 15769

REF. FILE 11430-M3

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

WERE ANALYSED BY EMISSION SPECTROSCOPY

X-RAY ASSAY LABORATORIES LIMITED

DATE 10-SEP-82

CERTIFIED BY

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15769 REF. FILE 11430-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOME

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2024	2029	ELEMENT	SENS*	2024	2029
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	T	T
ARSENIC	(4)	ND	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	T	ND	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	T	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	MH	M	YTTRIUM	(3)	ND	ND
LEAD	(2)	TL	FT	ZINC	(4)	TL	ND
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
MH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15769 REF. FILE 11430-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOME

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2018	2022	ELEMENT	SENS*	2018	2022
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	ND	†
ARSENIC	(4)	ND	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	ND	ND	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	T	T	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	M	MH	YTTRIUM	(3)	ND	ND
LEAD	(2)	T	TL	ZINC	(4)	ND	TL
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	*SENSITIVITY (LIMIT OF DETECTION)
MH - 5-15%	TL - 0.05-0.5%	1 - 0.0005-0.001%
M - 1-10%	T - 0.01-0.1%	2 - 0.001-0.005%
LM - 0.5-5%	FT - 0.01% OR LESS	3 - 0.005-0.01%
	ND - NOT DETECTED	4 - 0.01-0.05%
		5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15769 REF. FILE 11430-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
38 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOME

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2034	2046	ELEMENT	SENS*	2034	2046
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	T	FT
ARSENIC	(4)	ND	T	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	ND	T	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	FT	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	MH	MH	YTTRIUM	(3)	ND	ND
LEAD	(2)	FT	TL	ZINC	(4)	ND	T
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
VH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15765 REF. FILE 1143C-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
80 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOME

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2052	2054	ELEMENT	SENS*	2052	2054
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	FT	TL
ARSENIC	(4)	ND	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	ND	T	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	FT	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	H	H	YTTRIUM	(3)	ND	ND
LEAD	(2)	FT	TL	ZINC	(4)	ND	TL
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
MH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15769 REF. FILE 11430-M3 10-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOME

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2057	2059	ELEMENT	SENS*	2057	2059
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	TL	†
ARSENIC	(4)	ND	ND	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	ND	T	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	FT	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	H	H	YTTRIUM	(3)	ND	ND
LEAD	(2)	FT	FT	ZINC	(4)	ND	TL
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	
VH - 5-15%	TL - 0.05-0.5%	
M - 1-10%	T - 0.01-0.1%	
LM - 0.5-5%	FT - 0.01% OR LESS	
	ND - NOT DETECTED	

*SENSITIVITY (LIMIT OF DETECTION)

1 - 0.0005-0.001%
2 - 0.001-0.005%
3 - 0.005-0.01%
4 - 0.01-0.05%
5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

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TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
88 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2081	2082	ELEMENT	SENS*	2081	2082
ANTIMONY	(4)	ND	ND	MANGANESE	(1)	FT	T
ARSENIC	(4)	ND	T	MERCURY	(4)	ND	ND
BERYLLIUM	(2)	ND	ND	MOLYBDENUM	(3)	FT	FT
BISMUTH	(2)	ND	ND	NICKEL	(1)	FT	FT
CADMIUM	(4)	ND	ND	SILVER	(1)	FT	FT
CERIUM	(5)	ND	ND	TANTALUM	(5)	ND	ND
NIOBIUM	(4)	ND	ND	THORIUM	(3)	ND	ND
CHROMIUM	(4)	T	T	TIN	(2)	FT	FT
COBALT	(3)	ND	ND	TITANIUM	(2)	L	L
COPPER	(1)	FT	FT	TUNGSTEN	(4)	ND	ND
GALLIUM	(2)	FT	FT	URANIUM	(3)	ND	ND
GERMANIUM	(1)	ND	ND	VANADIUM	(2)	FT	FT
IRON	(2)	H	M	YTTRIUM	(3)	ND	ND
LEAD	(2)	T	TL	ZINC	(4)	T	T
LITHIUM	(4)	ND	ND	ZIRCONIUM	(4)	T	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%
MH - 5-15%	TL - 0.05-0.5%
M - 1-10%	T - 0.01-0.1%
LM - 0.5-5%	FT - 0.01% OR LESS
	ND - NOT DETECTED

*SENSITIVITY (LIMIT OF DETECTION)

1	0.0005-0.001%
2	0.001-0.005%
3	0.005-0.01%
4	0.01-0.05%
5	0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

X-RAY ASSAY LABORATORIES LIMITED

1885 LESLIE STREET, DON MILLS, ONTARIO M3B 3J4

PHONE 416-445-5755 TELEX 06-986947

CERTIFICATE OF ANALYSIS

REPORT 15769 REF. FILE 11430-M3 20-SEP-82

TO: GOLDMAC EXPLORATION INC.
ATTN: G. HARPER
85 UNIVERSITY AVENUE, SUITE 806
TORONTO, ONTARIO M5J 1T6

CUSTOMER

DATE SUBMITTED
18-AUG-82

13 PULPS ON HAND WO#11091-RPT#15357 WO#11165-RPT#15435

ELEMENT	SENS*	2086	ELEMENT	SENS*	2086
ANTIMONY	(4)	ND	MANGANESE	(1)	T
ARSENIC	(4)	T	MERCURY	(4)	ND
BERYLLIUM	(2)	ND	MOLYBDENUM	(3)	FT
BISMUTH	(2)	ND	NICKEL	(1)	FT
CADMIUM	(4)	ND	SILVER	(1)	FT
CERIUM	(5)	ND	TANTALUM	(5)	ND
NIOBIUM	(4)	ND	THORIUM	(3)	ND
CHROMIUM	(4)	T	TIN	(2)	FT
COBALT	(3)	ND	TITANIUM	(2)	L
COPPER	(1)	T	TUNGSTEN	(4)	ND
GALLIUM	(2)	FT	URANIUM	(3)	ND
GERMANIUM	(1)	ND	VANADIUM	(2)	FT
IRON	(2)	M	YTTRIUM	(3)	ND
LEAD	(2)	FT	ZINC	(4)	TL
LITHIUM	(4)	ND	ZIRCONIUM	(4)	T

LEGEND

KEY TO SYMBOLS

H - 10% PLUS	L - 0.1-1%	*SENSITIVITY (LIMIT OF DETECTION)
VH - 5-15%	TL - 0.05-0.5%	1 - 0.0005-0.001%
M - 1-10%	T - 0.01-0.1%	2 - 0.001-0.005%
LM - 0.5-5%	FT - 0.01% OR LESS	3 - 0.005-0.01%
	ND - NOT DETECTED	4 - 0.01-0.05%
		5 - 0.05-0.1%

NOTE: BETTER SENSITIVITIES CAN BE OBTAINED WITH SPECIAL TECHNIQUES, IF AND WHEN REQUIRED.

Ben Nevis Twp. PROPERTY: Goldmac Explorers Inc

LATITUDE: L 0+00	BEARING: N30W	DIP: -45°	STARTED: July 9/82	COMPLETED: July 10/82
DEPARTURE: 1+00 E	V.D.	H.D.	DRILLED BY: Markstay Diamond Drilling Co.	
ELEVATION:	LOCATION: Claim L 544467 - 160' N of #2 Post.			

HOLE NO. BN 82-1 Sheet 1 of 2 LOGGED BY: Harper

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	Oz/A Au	Oz/A Ag
0 - 11	Casing					
20.5	Rhyolite Agglomerate - many dark streaks, fair py	11 - 20.5	2066	9.5	NIL	NIL
23.5	Dacite					
52	Rhy Aggl - py mostly around large (6") frags	23.5 - 32	2067	9.5	NIL	NIL
		32 - 42	2068	10.0	NIL	NIL
		42 - 52	2069	10.0	NIL	NIL
55	Dacite - no mineral					
78	Rhy Aggl	55 - 62	2070	7.0	NIL	NIL
		62 - 72	2071	10.0	NIL	NIL
		72 - 78	2072	6.0	NIL	Tr
109.7	Diabase					
162	Rhy Aggl	109.7 - 117	2073	7.3	NIL	NIL
		117 - 122	2074	5.0	NIL	NIL
		122 - 127	2075	5.0	NIL	NIL
		127 - 132	2076	5.0	NIL	NIL
		132 - 137	2077	5.0	.001	Tr
		137 - 142	2078	5.0	.001	Tr
		142 - 147	2079	5.0	NIL	0.33
		147 - 152	2080	5.0	.003	0.61
		152 - 157	2081	5.0	.019	2.96
		157 - 162	2082	5.0	.015	1.96
174.5	Dacite - clay alt°. F.gr. tuffaceous, fair mineral	162 - 167	2083	5.0	.001	0.26
		167 - 174.5	2084	7.5	.001	0.34
237	Dacite Breccia - pinkish color, hard, siliceous	174.5 - 187	2085	12.5	.005	0.10
		187 - 197	2086	10.0	.012	Tr

18 : 02.
1 : 0

Ben Nevis Twp.	PROPERTY: Guldmac Explorations Inc.			HOLE NO. BN 82-1 Sheet 2 of 2
LATITUDE :	BEARING:	DIP:	STARTED: COMPLETED:	
DEPARTURE:	V.D.	H.D.	DRILLED BY:	DEPTH:
ELEVATION:	LOCATION:			LOGGED BY:

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Oz. Au	Oz. Ag
		197 - 207	2087	10.0	.006	TR
		207 - 217	2088	10.0	.003	NIL
		217 - 227	2089	10.0	.005	NIL
		227 - 237	2090	10.0	.003	NIL
	END OF HOLE					
	30 element spectrographic Analyses - see attached					
			2081			
			2082			
			2086			
	H. G. Hargan					

Ben Nevis Township	PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN82-2
LATITUDE: L 0+50 N	BEARING: N30 W	DIP: -45	STARTED: July 13/82	COMPLETED: July 14/82	
DEPARTURE: 1+00 E	V.D.	H.D.	DRILLED BY: Markstay Diamond Drillers		DEPTH: 211
ELEVATION:	LOCATION: Claim L 544468 - 30'E & 190'N of #3 Post.			B.Q.	LOGGED BY: Harper

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Oz/Au	Oz/Ag
0-2	Casing					
19.5	Rhyolite Agglomerate - very ese qtz frags surrounded by white mica & py	1-12	2050	11.0	NIL	NIL
		12-19.5	2051	7.5	NIL	Tr
42	Dacite - pale green - some py					
54	Rhyolite Agglomerate - abundant py & white mica	42-54	2052	12.0	.011	.47
73	" " - less siliceous - dacite interbeds	54-62	4117	8.0	.013	.46
	less mineral	62-72	2053	10.0	.019	.37
117	Diabase					
211	Agglomerate - partly carbonated - scatt py around frags & to a lesser degree in seams	132-142	2054	10.0	.005	.09
	from 162' - Zone of increasing carb & less py					
		162-172	2055	10.0	NIL	NIL
	very low mineral strong carb	182-192	2056	10.0	NIL	NIL
	END OF HOLE					
	30 element spectrographic Analyses - see attached					
			2052			
			2054			

REGISTERED PROFESSIONAL ENGINEER
MINING
H. C. HARPER
PROVINCE OF ONTARIO

H. C. Harper

Ben Nevis Township	PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN 82-3
LATITUDE: L100N	BEARING: N30W	DIP: -45	STARTED: July 11/82	COMPLETED: July 12/82	
DEPARTURE: 1+00E	V.D.	H.D.	DRILLED BY: Markstay Diamond Drillers		DEPTH: 104'
ELEVATION:	LOCATION: Claim L544468 - 70'E & 220'Ng #3 Post.			R.Q.	LOGGED BY: Harper

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA OzAu	OzAg
0-19	Casing					
85	Dacite - heavily carbonated. Fractured at CA 30	19-25	2045	6.0	.039	.21
	Scatt py in seams. PHS.	25-29	2046	4.0	.086	.22
		29-35	2047	6.0	.009	Tr
		35-45	2048	10.0	.002	Tr
		45-55	2049	10.0	Tr	NIL
		55-65	4114	10.0	Tr	Tr
104	Diabase dike - fractured.	65-75	4115	10.0	.001	Tr
	LOST HOLE	75-85	4116	10.0	.001	Tr.
	END OF HOLE					
	30 element spectrographic analysis - see attached.		2046			

REGISTERED PROFESSIONAL ENGINEER
MINING
H. C. HARPER
PROVINCE OF ONTARIO

H.C. Harper

Ben Nevis Twp.	PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN 82-4 Sheet 1 of 2
LATITUDE: L 1+00 N	BEARING: N 30 W	DIP: -45°	STARTED: July 7/82	COMPLETED: July 10/82	
DEPARTURE: 2+00 E	V.D.	H.D.	DRILLED BY: Markstay Diamond Drillers		DEPTH: 312
ELEVATION:	LOCATION: Claim L 544468 - 135' E & 40' N of #3 Post			B.Q.	LOGGED BY: Harper

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Ozs Au	Ozs Ag
0-7	Casing					
96.5	Dacite - f. grained, yellowish cast with pinkish streaks					
	numerous py filled fractures, mostly 45 CA	18 - 23	2017	5.0	NIL	NIL
	50' fault seam, probably at 45 CA leached & oxidized - carb alt^					
104.5	Zone of streaks of csc py (up to 80%) pink carb zone	96.5 - 99.5	2018	3.0	.003	.46
		99.5 - 104.5	2019	5.0	.002	.07
109.5	Dacite - negligible fracturing & mineralization					
123.5	Mineralized Zone in Dacite. - dk alt^ along fractures	109.5 - 114.5'	2020	5.0	.002	.13
	fair fine gr py min. almost BX, some frags	114.5 - 119.5'	2021	5.0	.002	.22
	some PbS - greenish cherty alt^	119.5 - 123.5	2022	4.0	.002	.28
141	Weaker Mineralized Zone - carb. PbS fine py					
	fract CA 30	128 - 132	2023	4.0	.002	.07
	strong PbS	132 - 135'	2024	3.0	.005	.27
141	FAULT ZONE	135 - 141	2025	6.0	.005'	Tr
162	Carbonated Zone fract CA 30 py PbS	141 - 146	2026	5.0	.016	Tr
	dacite	146 - 151	2027	5.0	.008	Tr
		151 - 156	2028	5.0	.007	NIL
		156 - 162	2029	6.0	.005	.19
187	Dacite	162 - 167	2030	5.0	Tr	NIL
		167 - 172	2031	5.0	Tr	NIL
		172 - 177	2032	5.0	NIL	NIL
		177 - 182	2033	5.0	.002	NIL
		182 - 187	2034	5.0	.015	Tr

PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN 82-4 Sheet 2 of 2
LATITUDE :	BEARING:	DIP:	STARTED: COMPLETED:	
DEPARTURE:	V.D.	H.D.	DRILLED BY:	DEPTH:
ELEVATION:	LOCATION:			LOGGED BY:

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Oz. Au	Oz. Ag
187- 206	Agglomerate - py around & thru' frags	187- 192	2035	5.0	.005	Tr
	rhyolitic	192 - 197	2036	5.0	.004	Tr
	extremely siliceous	197 - 202	2037	5.0	Tr	0.22
		202 - 206	2038	4.0	Tr	NIL
242	Diabase					
312	Agglomerate					
	sections heavily carbonated.	247- 252	2039	5.0	.002	NIL
	py in fractures & around frags	252 - 257	2040	5.0	Tr	NIL
		257 -262	2041	5.0	NIL	NIL
		262 - 272	2042	10.0	NIL	NIL
		272 - 282	2043	10.0	NIL	NIL
		282 - 292	2044	10.0	NIL	NIL
		23 - 32	4110	9.0	.009	Tr
	END OF HOLE	32 - 42	4111	10.0	Tr	NIL
		42 -52	4112	10.0	.001	Tr
	30 element spectrographic analyses - see attached.	52-62	4113	10.0	.004	Tr
			2018			
			2022			
			2024			
			2029			
			2034			
		62-72	4105	10.0	.001	Tr
		72 - 82	4106	10.0	Tr	Tr
		82 - 92	4107	10.0	NIL	Tr
		92 - 96.5	4108	4.5	NIL	Tr
		104.5 - 109.5	4109	5.0	NIL	NIL

REGISTERED PROFESSIONAL ENGINEER
MINING
H. C. HARPER
PROVINCE OF ONTARIO

H. C. Harper

Ben Nevis Twp.	PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN82-5 Sheet 1 of 2
LATITUDE: L 3+00 N	BEARING: N30 W	DIP: -45	STARTED: July 21/82	COMPLETED: July 23/82	
DEPARTURE: 2+50 E	V.D.	H.D.	DRILLED BY: Markstay Diamond Drilling Co Ltd		DEPTH: 405.
ELEVATION:	LOCATION: Claim L 544468 -220'N & 320'E of #3 Post			B.Q.	LOGGED BY: Harper.

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Oz Au	Oz Ag				
0 - 10	Casing									
29	Rhyolite Agglomerate									
33	Dacite - grey f. gr. chl. blebs									
117	Rhyolite Aggl + interbedded tuffs - minor sulphides									
	55 - 110 Zone of leached Fault Seams									
128	Dacite - as above.									
	125' Fault Zone leached.									
156	Rhyolite - as above									
	147' - Fault Zone leached	149.5 - 152.4	2057	2.9	.004	NIL				
	156 - Fault Zone				.<					
160	Dacite									
237.5	Aggl & Tuff interbeds, talcy, carbonated, dacite & rhy.	179 - 185	2058	6.0	.004	NIL				
	fractures increasing with py as f.f. dark streaks	185 - 195	2059	10.0	NIL	0.10				
	increasing	195 - 205	2060	10.0	.002	NIL				
		205 - 215	2061	10.0	NIL	0.10				
		215 - 225	2062	10.0	.004	Tr				
		225 - 230	2063	5.0	.001	Tr				
		230 - 235	2064	5.0	NIL	Tr.				
		235 - 237.5	2065	2.5	NIL	Tr				
275	Diabase									
300	Mineralized Zone - very siliceous, abundant py.	275 - 280	2091	5.0	.006	2.05				
	some clay or sericite alt'n	280 - 285	2092	5.0	.004	3.63	1.84 Ozs / 20.0'			
		285 - 290	2093	5.0	.002	0.99				
		290 - 295	2094	5.0	.001	0.57				
		295 - 300	2095	5.0	Tr	NIL				

Ben Nevis Twp. PROPERTY: Goldmac Explorations Inc.				HOLE NO. BN82-5 Sheet 2 of 2
LATITUDE :	BEARING:	DIP:	STARTED:	COMPLETED:
DEPARTURE:	V.D.	H.D.	DRILLED BY:	DEPTH:
ELEVATION:	LOCATION:			LOGGED BY:

FOOTAGE		SAMPLE FOOTAGES	SAMPLE No.	WIDTH FT.	ASSAY DATA Oz/t Au	Oz/t Ag
300 - 310	Rhyolite Agglomerate - neg sulphides, very silic. large frags					
	335 to 350 as above but with sparse sulphides					
		315 - 320	2096	5.0	NIL	NIL
		335 - 340	2097	5.0	NIL	NIL
		340 - 345	2098	5.0	NIL	NIL
		345 - 350	2099	5.0	NIL	NIL
	350 - to end - rhy aggl - very sparse sulphides					
		375 - 380	2100	5.0	NIL	NIL
	END OF HOLE					
	30 element spectrographic analyses - see attached.					
			2057			
			2059			
		140 - 145	4101	5.0	Tr	NIL
		55 - 65	4102	10.0	NIL	NIL
		161.2 - 165	4103	3.8	.005	Tr
		165 - 175	4104	10.0	Tr	NIL

REGISTERED PROFESSIONAL ENGINEER
MINING
H. C. HARPER
PROVINCE OF ONTARIO

H. C. Harper

Ontario

Ministry of Natu

GEOPHYSICAL – GEOLOGI
TECHNICAL DATA

32005SE0045 2.4987 BEN NEVIS

900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Mapping, Radiometric, Prospecting
Township or Area Ben Nevis
Claim Holder(s) Goldmac Explorations Inc.
Suite 806 - 88 University Ave Toronto
Survey Company Harper Consulting Services Inc.
Author of Report H. Grant Harper, P.Eng.
Address of Author 314 Hendon Ave., Willowdale
Covering Dates of Survey May 20/82 - July 15/82
(linecutting to office)
Total Miles of Line Cut 1.5

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	
--Magnetometer	
--Radiometric	20
--Other (Prospecting)	20
Geological	20
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: July 15/82 SIGNATURE: H.G. Harper.
Author of Report or Agent

Res. Geol. _____ Qualifications 63.1058

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	537914
L.	537915
L.	537916
L.	537917
L.	537918
L	537919
L	575225
L.	575226
L.	575227
L.	575228
L.	575229
L.	575230
L.	575231
L.	544466
L.	544467
L.	544468

TOTAL CLAIMS 16

If space insufficient, attach list

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval 100' Line spacing _____

Profile scale N/A

Contour interval N/A

MAGNETIC

Instrument _____

Accuracy – Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

_____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

_____

Base station value and location _____

_____

Elevation accuracy _____

INDUCED POLARIZATION RESISTIVITY

Instrument _____

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time _____ Frequency _____

– Off time _____ Range _____

– Delay time _____

– Integration time _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument McPhar TC 33A Scintillometer

Values measured total gamma counts per second

Energy windows (levels) 0.1 mev.

Height of instrument hip level Background Count 30 cps

Size of detector 1.5" diam. x 1.5" high = 2.65 in³.

Overburden Variable - 0 to several feet - sand, gravel, peat.
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey Geological Mapping	Prospects Survey.
Instrument John R Lee, H.G. Harpe.	Jim Essery
Accuracy	
Parameters measured rock type, strike dip etc.	84 samples collected & assayed.
Additional information (for understanding results)	

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____
(specify for each type of survey)

Accuracy _____
(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

1982 09 27 2.4987

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. BOx 984
Kirkland Lake, Ontario
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical (Radiometric) and Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims L 537914 et al in the Township of Ben Nevis.

We have also received data for assaying submitted under Section 77(19) of the Mining Act R80 1980.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura:sc

cc: Goldmac Exploration Inc
Toronto, Ontario

cc: H.G. Harper
Willowdale, Ontario

Ontario — Report of Work (Geophysical, Geological, Geochemical and Expenditures)

115601

The Mining Act 2.4987

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

#356

Type of Survey(s): Assay & Analyses Expenditures

Township or Area: Ben Nevis Twp.

Claim Holder(s): Goldmac Exploration Inc.

Prospector's Licence No.: T 930

Address: Suite 806 - 88 University Ave. Toronto

Survey Company: Harper Consulting Service Inc.

Date of Survey (from & to): 7 Day | 7 Mo. | 82 Yr.

Total Miles of line Cut: N/A

Name and Address of Author (of Geo-Technical report): H.G. Harper, 314 Hendon Ave. Willowdale

2.4987

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
L	537914	9.5
	537915	9.5
	537916	9.5
	537917	9.5
	537918	9.5
	537919	9.5
	575225	9.5
	575226	9.5
	575227	9.5
	575228	9.5
	575229	9.5
	575230	9.5
	575231	9.5
	544466	9.5
	544467	9.5
	544468	9.5

RECEIVED
NOV - 2 1982
MINING LANDS SECTION

LARDER LAKE MINING DIV.
RECEIVED
OCT 27 1982
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Expenditures (excludes power stripping)

Type of Work Performed: Assaying Analysis of drill cores.

Performed on Claim(s): L 544467 & L 544468

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$ 2277.50	÷	15	=	151.8

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work. 16

For Office Use Only		
Total Days Cr. Recorded: 152	Date Recorded: OCT 27 1982	Mining Recorder: [illegible]
	Date Approved as Recorded: 83:04:20	Branch Director: [illegible]

Date	Recorded Holder or Agent (Signature)
	Goldmac Exploration Inc. per H.G. Harper

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: H. Grant Harper P.Eng.
314 Hendon Ave Willowdale Ont.

Date Certified: Oct 21/82

Certified by (Signature): H.G. Harper

Ontario — Geochemical and Expenditures)

Land Admin (File L537914) The Mining Act 2.4987

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns. – Do not use shaded areas below. #270

Type of Survey(s): Radiometric, Geological Maps, & Properties	Township or Area: Ben Nevis
Claim Holder(s): Goldmac Explorations Inc.	Prospector's Licence No.: T 936
Address: Suite 806 - 22 University Ave Toronto	
Survey Company: Harper Consulting Services Inc.	Date of Survey (from & to): 20 5 82 (Day/Mo./Yr.) to 1 7 82 (Day/Mo./Yr.)
Name and Address of Author (of Geo-Technical report): H. Grant Harper, P.Eng. 314 Hendon Ave., Willowdale	Total Miles of line Cut: 15

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	20
	- Other ~~Prospecting~~	~~2~~
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here: Special Provisions	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	537 914	
	537 915	
	537 916	
	537 917	
	537 918	
	537 919	
	575 225	
	575 226	
	575 227	
	575 228	
	575 229	
	575 230	
	575 231	
	544 466	
	544 467	
	544 468	
	~~544~~	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
SEP 16 1982
MINING LANDS SECTION

LARDER LAKE MINING DIV.
RECEIVED
AUG - 9 1982
AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work: 16

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
640	AUG 9 1982	
	Date Approved as Recorded: 83:04:20	Branch Director

Date: Aug 11/82

Recorded Holder or Agent (Signature): Goldmac Expl. Inc. per H. G. Harper

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
H. Grant Harper, P.Eng.
314 Hendon Ave., Willowdale

Date Certified:

Certified by (Signature):

Ontario Ministry of Natural Resources

Geotechnical Report Approval

File 2.4987

Dec 29/82

Mining Lands Comments

~~As Cheque Receipts~~

☑ To: Geophysics M/R. Barlow

Comments

☑ Approved ☐ Wish to see again with corrections | Date Jan 20/83 | Signature Ryan Pch

☑ To: Geology - Expenditures M/R Kustra

Comments

☑ Approved ☐ Wish to see again with corrections | Date Feb 28/83 | Signature C Kustra

☐ To: Geochemistry

Comments

(1)

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

1982 09 20

2.4987

Mr. H.G. Harper, P. Eng.
314 Hendon Avenue
Willowdale, Ontario
M2M 1B2

Dear Mr. Harper:

With reference to your letter of August 17, 1982, I am prepared to allow you assessment work credits for the work that involved the collecting and assaying of rock samples on an expenditure basis under Section 77 (19l) of the Mining Act. You must, however, provide the certificate of analysis; receipts for the laboratory costs and a financial statement as to the cost value of your time in collecting the samples.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room #6450
Queen's Park, Toronto
M7A 1W3
Telephone: 416/965-1380

F.W. Matthews:eb

H. GRANT HARPER, P. Eng., F.G.A.C.

314 HENDON AVENUE
WILLOWDALE, ONTARIO
M2M 1B2
(416) 225-7412

Associations: A.P.E.O.
G.A.C.
C.I.M.

Consulting Engineer
Exploration Geologist

August 17, 1982.

Mr. J.C. Smith,
Supervisor of Mining Lands Section,
Room 6451, Whitney Block,
Queen's Park, Toronto.

re: Goldmac Expl. Inc.
Assessment Credit - Prospecting

Dear Mr. Smith,

This letter follows our conversation of a few days ago respecting Goldmac's application for 20 days assessment credit per claim for prospecting on its Ben Nevis Township property. I realize that the application does not fall four square within the regulations, but I think this case warrants special consideration.

May I point out some salient points.

1.- The Ben Nevis Area is regarded as exceptionally favourable for mineralization. It has received lots of work but no mines have been found.
2.- Large areas of rock are unusually rich in sulphides.
3.- Geophysical surveying has proven very difficult to interpret and has been generally very unproductive.
4.- The combined prospecting and mapping technique applied to Goldmac's claims has clearly indicated the favourable environment for mineralization and is much more useful than the VLF, Mag, and IP results.

I would very much like to meet with you and your staff to enlarge on this matter for I believe that good prospecting warrants as much credit as a geophysical survey,

Yours truly,

H.G. Harper

HARPER Consulting Services Inc.

H. Grant Harper P. Eng., President
Consulting Engineer & Geologist

314 Hendon Avenue
Willowdale, Ontario M2M 1B2
(416) 225-7412

July 26, 1982.

Mr. G.J. Koleszar, Mining Recorder,
Box 984,
4 Government Rd., East,
Kirkland Lake, Ontario.

Dear Mr. Koleszar,

Enclosed is a completed Report of Work form covering woek done on 16 claims located in Ben Nevis Township and owned by Goldmac Explorations Ltd. Reports and maps in duplicate have been submitted to Mr. Matthews office in The Whitney Block. The claims are now under extension.

Diamond drilling is now inderway on the property and this work will be reported in due course.

Yours truly,

H.G. Harper.

2.4987

	Radiometric	Geol.
537914	✓	✓
15	✓	
16	✓	
17	✓	
18	✓	
19	✓	
575225	✓	
26	✓	
27	✓	
28	✓	
29	✓	
30	✓	
31	✓	
544466	✓	
67	✓	
68	✓	↓

D.K.

Tannahill Twp.(M.390)

Clifford Twp.(M.338)

Pontiac Twp.(M.382)

Katrine Twp.(M.357)

THE TOWNSHIP
OF 2.4987

BEN NEVIS

DISTRICT OF
COCHRANE

LARDER LAKE
MINING DIVISION

SCALE: 1 INCH 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C S
LEASES	(L)
LOCATED LAND	Loc
LICENSE OF OCCUPATION	L O
MINING RIGHTS ONLY	M R O
SURFACE RIGHTS ONLY	S R O
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C
TRAILS	

NOTES

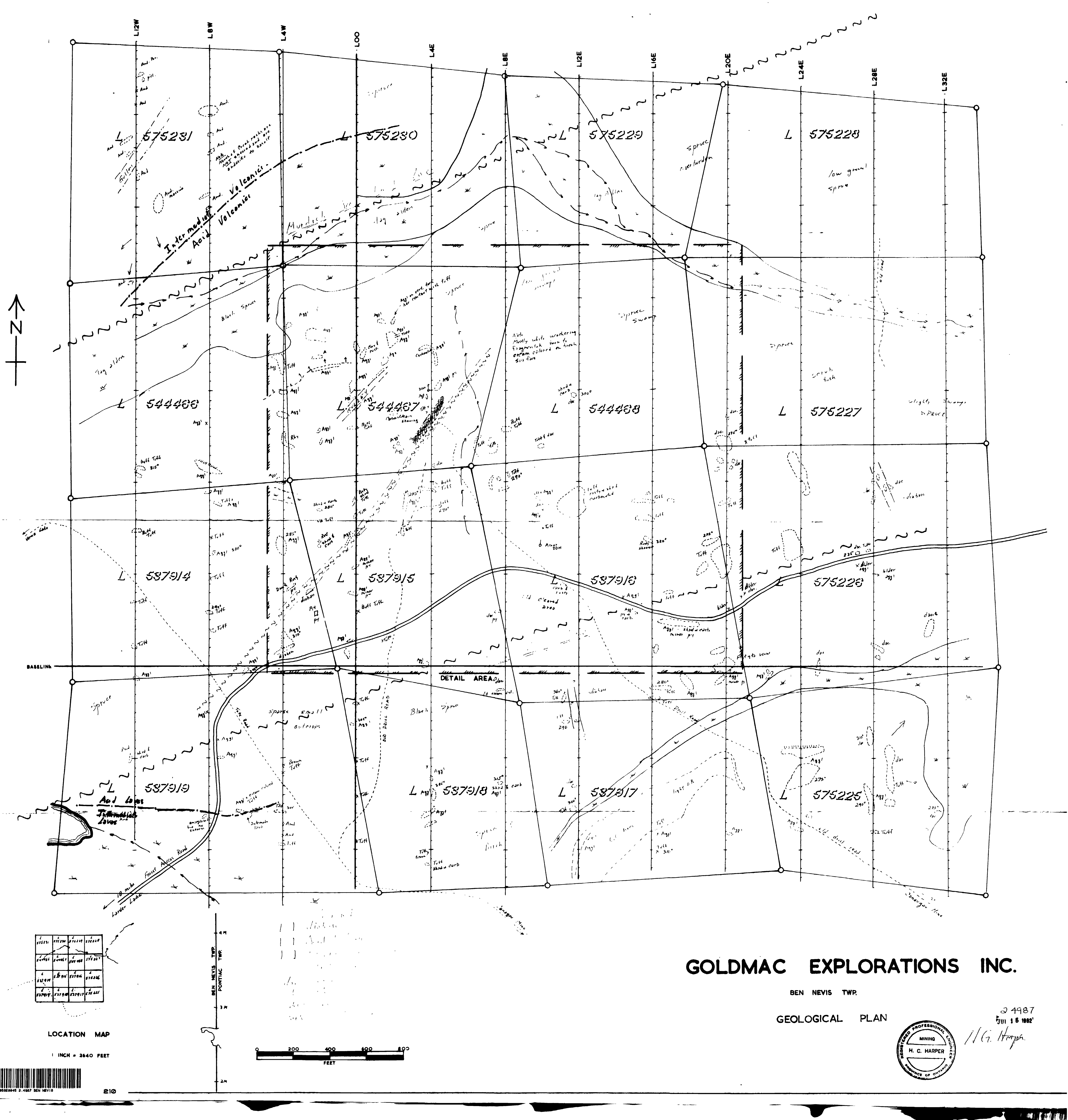
400' Surface rights reservation along the shores of all lakes and rivers

SAND AND GRAVEL

(G) QUARRY PERMIT

PLAN NO M.325

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



GOLDMAC EXPLORATIONS INC.

BEN NEVIS TWP.

GEOLOGICAL PLAN

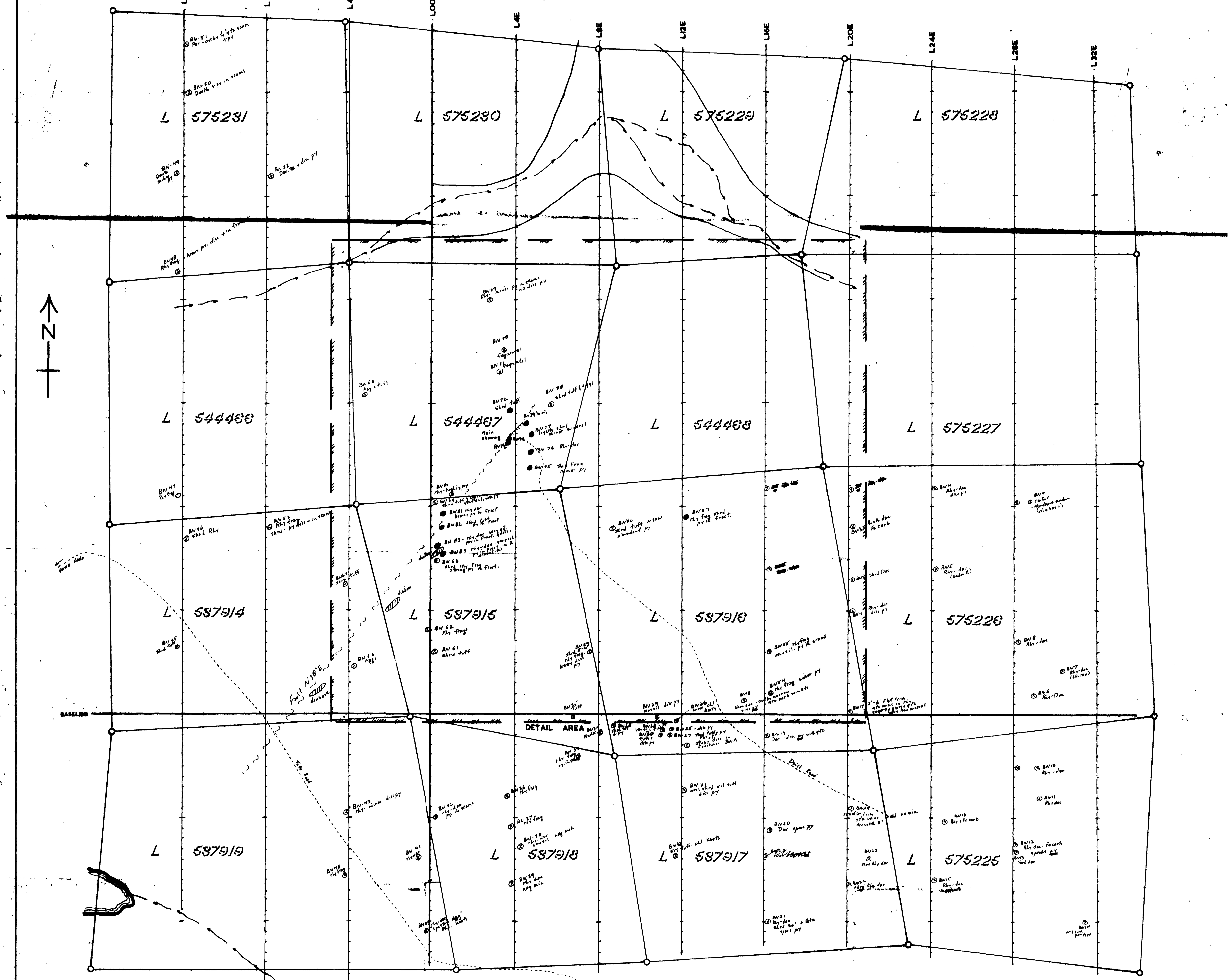
2.4987
JUL 15 1982

REGISTERED PROFESSIONAL ENGINEER — MINING — H. C. HARPER — PROVINCE OF ONTARIO

H.C. Harper

32D05SE0045 2.4987 BEN NEVIS

210



BEN NEVIS TWP.
PONTIAC TWP.
4M
3M
2M

Location	Sample No	Oz. Au	Oz Ag
BNA		—	NIL
BN-1		—	NIL
BN-4		—	NIL
BN-17		NIL	NIL
BN 18		NIL	NIL
BN 19		—	NIL
BN21		—	NIL
BN24		NIL	NIL
BN25		—	NIL
BN 26		—	NIL
BN28		NIL	NIL
BN 29		—	NIL
BN 30		—	NIL

Location	Oz Au	% Cu	% Zn	Oz Ag	% Pb
BN 31				NIL	
BN 33				NIL	
BN 34				NIL	
BN42				NIL	
BN48				NIL	
BN50				NIL	
BN 51	NIL			NIL	
BN52				NIL	
BN53				NIL	
BN55				NIL	
BN57				Trace	
BN58				NIL	
BN59				NIL	
BN60				NIL	
BN63				NIL	
BN64				NIL	
BN69				NIL	
BN73	.004		.01	085	.03
BN74	.019		.13	16.6	2.04

Location	Oz Au	% Cu	% Zn	Oz Ag	% Pb
BN75				Trace	
BN76				Trace	
BN77				Trace	
BN79	Trace		1.27	1.40	0.77
BN81				Trace	
BN82	NIL			Trace	
BN83				Trace	
BN84	NIL			Trace	
BN85	NIL	Trace		Trace	
BN66				NIL	
BN70				NIL	
BN71				NIL	
BN74				Tr	
BN 80				NIL	

0 200 400 600 800
FEET

GOLDMAC EXPLORATIONS INC.

BEN NEVIS TWP.

PROSPECTING PLAN

REGISTERED PROFESSIONAL ENGINEER
MINING
H. C. HARPER
PROVINCE OF ONTARIO

2 4987
H. C. Harper

JUL 15 1982

32D05SE0046 2.4987 BEN NEVIS

220

L12W L8W L4W L00 L4E L8E L12E L16E L20E L24E L28E L32E

L 575231 L 575230 L 575229 L 575228

L 544466 L 544467 L 544468 L 575227

L 537914 L 537915 L 537916 L 575226

L 537919 L 537918 L 537917 L 575225

N

Main showing

Horne Lake

BASELINE

DETAIL AREA

Elk Road

LEGEND

40 Station, reading in counts per second on all Gamma levels of 0.1 mev & higher

Instrument: Ni-Phar YC 33A Scintillometer

Instrument elevation hip level

Higher reading - doubtfully anomalous

LOCATION MAP

1 INCH = 2640 FEET

BEN NEVIS TWP.

PONTIAC TWP.

4M

3M

2M

300 400 600 800

FEET

GOLDMAC EXPLORATIONS INC.

BEN NEVIS TWP.

Radiometric Survey

REGISTERED PROFESSIONAL ENGINEER MINING H. C. HARPER PROVINCE OF ONTARIO

JUL 18 1982

H.C. Harper