42A01SE9705 30 OTTO

DIAMOND DRILLING

TWP/AREA OTTO REPORT NO. 30

WORK PERFORMED FOR: FERNAND RIVARD

RECORDED HOLDER: SAME AS ABOVE [X]
: OTHER [ ]

CLAIM NO.	HOLE NO.	FOOTAGE	DATE	NOTE
982690	OT4-92	139.6 m	Oct. 14/92	(1)
982694	OT1-92	13.7 m	July 8/92	
982695	OT3-92	129.0 m	Aug. 9/92	
982694	OT2-92	83.2 m	July 16/92	

NOTES: (1) W9380.00246

REPORT ON THE OTTO TOWNSHIP PROPERTY
LARDER LAKE MINING DIVISION
FOR
FERNAND RIVARD

S.J. Carmichael Consultants
Kirkland Lake, Ontario

Sept. 1, 1993
NTS 42/SE

42A01SE9705 30 OTTO

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SUMMARY

This report on the Otto Township property has been prepared by S.J. Carmichael, B.Sc., FGAC at the request of Fernand Rivard, 876 Government Rd. West, Kirkland Lake, Ontario. This report is a summary of work completed during 1992 by Mr. Rivard for submittal for assessment credits.

The property comprises ten contiguous staked claims with a total area of 400 acres. The claims are located in the north-central portion of Otto Township, District of Timiskaming, Larder Lake Mining Division, approximately six kilometres west of Kirkland Lake and two kilometres south of the town of Swastika.

Previous work on the claims includes that by Chavigny Gold Mines Limited (1948) who completed 3 diamond drill holes. Since then. the claims have been worked by Mr. Rivard who has completed two diamond drill holes and power stripping in 1989-1990.

In 1991, Mr. Rivard completed ground magnetometer, VLF-EM and geological mapping under the guidance of S.J. Carmichael Consultants.

This years program, covered in this report, included an advanced VLF-EM survey termed Maxi-Probe. This is in effect a mobile VLF transmitter which measures 14 frequencies ranging from 42.968 kHz to 0.228 kHz. The use of multiple frequencies eliminates possible overburden anomalies defined by regular VLF-EM surveys.

A number of anomalies were verified by the Maxi-Probe survey, two of which were tested by diamond drilling. (2 holes totalling 212m, 1 hole abandoned at 13.7m.)

No significant metal values were intersected in either of the drill holes and further work on this section of the property is not recommended.

An additional drill hole totalling 139.6m was completed as a follow-up to a 1989 drill hole which intersected 0.107 oz/ton Au over 3.97m which appeared to have a corresponding weak Maxi Probe anomaly.

Results from this drill hole were disappointing in that no anomalous mineralization was encountered. Either the assay results from hole OT-89-1 were false due to contamination or the mineralization was due to a north-south striking structure which was missed in drill hole OT4-92. Because the lithologies between the two holes are quite different, and the extension of a mapped north-northeast structure would intersect OT-89-1, the latter explanation is a possibility.

One additional drill hole is required to test a possible north-south structure and a number of moderate to strong Maxi Probe anomalies remain to be tested.

The total expenditures incurred during this phase of exploration including diamond drilling (365.50m) and the Maxi Probe survey were $24,770.00.

Report on the Otto Township Property
Larder Lake Mining Division
for
Fernand Rivard

INTRODUCTION

This report on Fernand Rivard's Otto Township mining exploration property has been prepared by S.J. Carmichael at the request of Mr. Rivard. It is an assessment of recent exploration completed on the property and is intended to fulfil assessment requirements.

Information on the property is derived from the records of the Ministry of Northern Development and Mines and publications by the Ontario Geological Survey. The author of this report supervised the following drilling program. All work on the claims was performed between June 11 and August 14, 1992.

PROPERTY LOCATION ACCESS AND FACILITIES

The Rivard claim group is located in the north central portion of Otto Township (NTS 41A/SE), District of Timiskaming and within the Larder Lake Mining Division, approximately six kilometres west of Kirkland Lake. Access to the property is through Culver Park, located immediately west of the town of Swastika. A narrow trail, reconditioned by Mr. Rivard leads southeast a distance of two kilometres to the claims. The Blanche River flows through the south portion of the group and a beaver pond located in the middle of the property provides an ample water supply for diamond drilling.

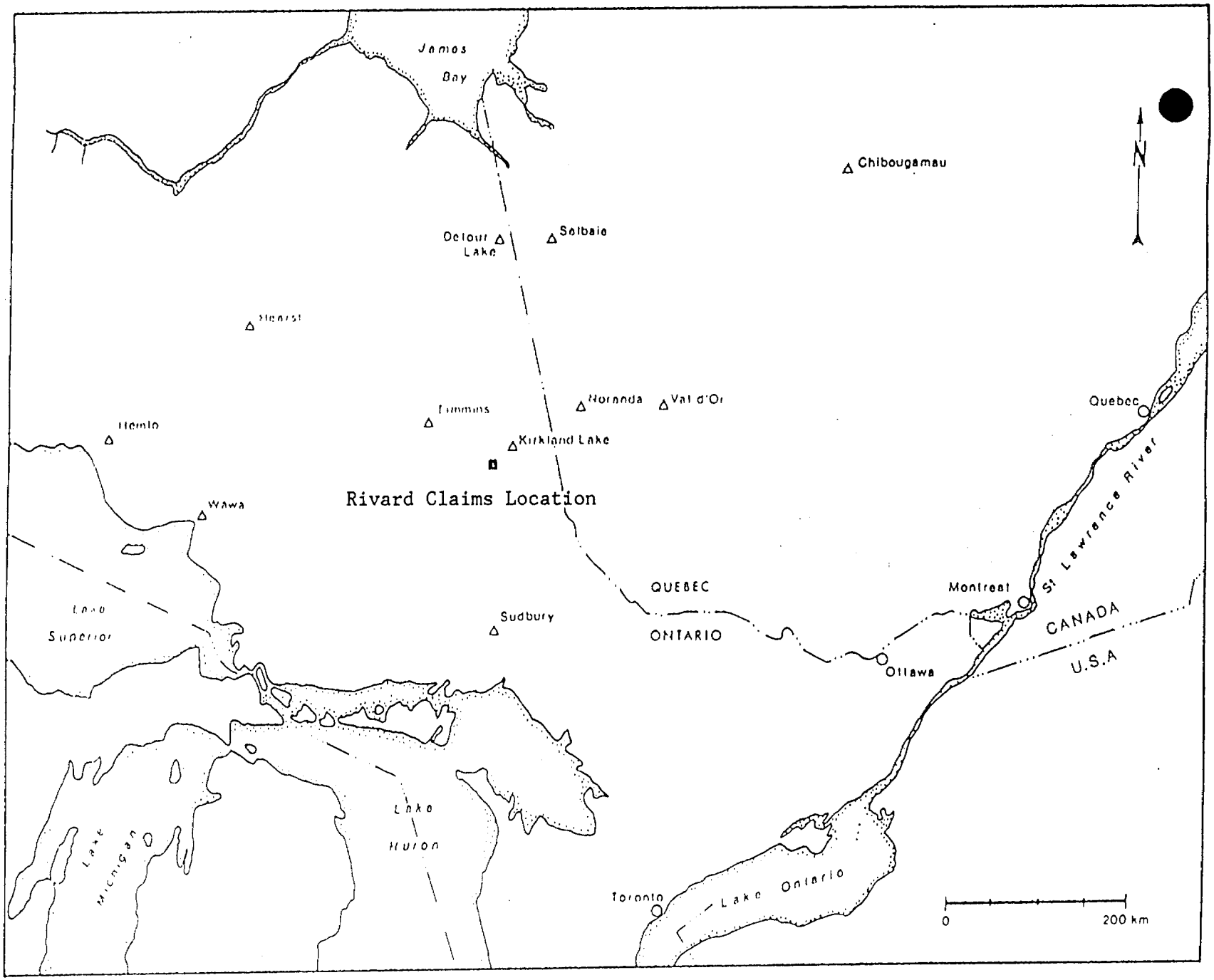


Figure 1 General Location Plan

TOPOGRAPHY

The north section of the group is covered by rocky bedrock exposures with a 200' south-facing cliff located just north of the baseline. The central portion is covered by lacustrine clay deposits cut by several deep ravines. These ravines were dry in the fall but may be active with running creeks during spring run off. Bedrock exposure occurs over the south portion towards the Blanche River. Murdock Creek empties into the Blanche River at the east boundary of the claims. The Maxi-Probe survey indicated that the overburden is generally less than thirty feet in depth over the entire property.

LAND TENURE AND OWNERSHIP

The Otto Township property comprises 10 staked contiguous unsurveyed mining claims with a total area of approximately 400 acres. The claim numbers, recorded dates and applied assessment credits are listed in the following table:

CLAIM NUMBER	RECORDED DATE	APPLIED CREDITS	COMMENTS
L-982689	July 12, 1987	N/A	In good standing until July 12, 1995
L-982690	July 21, 1987	N/A	In good standing until July 21, 1995
L-982691	July 21, 1987	N/A	In good standing until July 21, 1995
L-982692	July 21, 1987	N/A	In good standing until July 21, 1995
L-982693	July 28, 1987	N/A	In good standing until July 28, 1995
L-982694	July 22, 1987	N/A	In good standing until July 22, 1995
L-982695	July 25, 1987	N/A	In good standing until July 25, 1995
L-982696	July 25, 1987	N/A	In good standing until July 25, 1995
L-982697	August 10, 1987	N/A	In good standing until Aug. 10, 1995
L-982698	August 10, 1987	N/A	In good standing until Aug. 10, 1995

All claims will require $400.00 work in 1996. The programs completed under this year's OPAP program should maintain the claims until the year 2000.

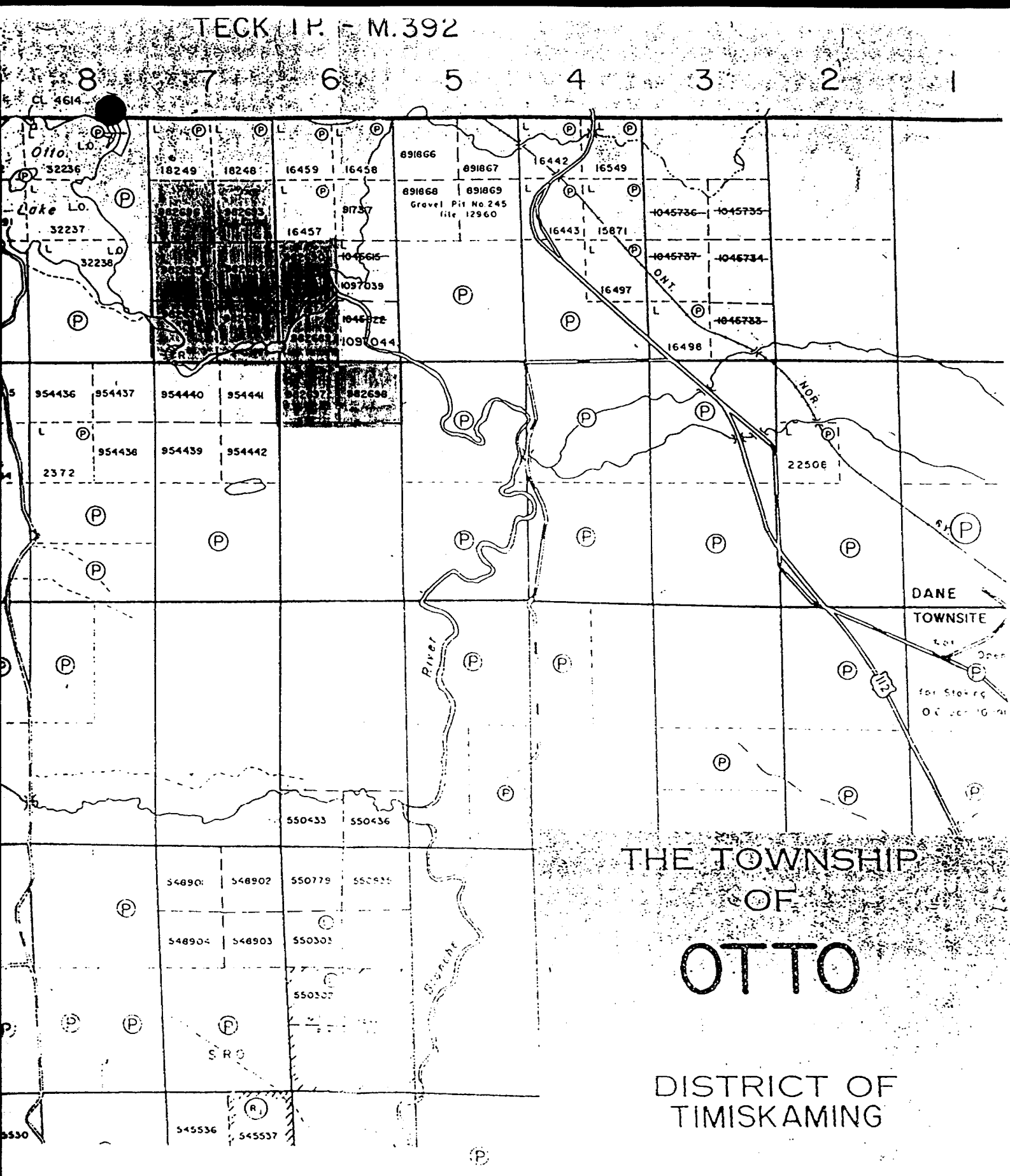


Figure 2

Claim Location Plan 1"=1/2 Mile

PROPERTY HISTORY

The first government map published covering the present Rivard group was by J. Thomson, 1948 titled Geology of Teck Township and the Kenogami Lake Area, map No. 1946-1. The area was mapped again in 1967-68 by H. Lovell (Map No. 2239 - Eby-Otto Area). Lovell reported the outcrops to be basalt to andesite in composition with two northeast tending faults passing through the present claims. Further mapping by L.S. Jenson was completed in the late 1980's but never published.

Exploration on the claims has been limited in the past. The only recorded work was by Chavigny Gold Mines Limited which completed three diamond drill holes. The first two were completed on present claim 982690 in July of 1948. The first hole was drilled at a dip of -80 deg. and a southwest azimuth. Altered greenstone was intersected throughout with alteration and shearing intersected from 403.8 to 407.0'. A fault was also intersected at 638.0' and widespread narrow carbonate stringers were intersected to the end of the hole which was drilled to a depth of 1043 feet. An assay of 0.04 oz/ton Au was reported from this hole in rusty altered greenstone from 202.0 to 202.5'. The second hole, drilled at a -70 deg. dip and an azimuth of 250 deg. reached a depth of 945' with negligible results. A third hole was drilled on present claim 982694 intersected a major fault with a sludge assay of 0.02 oz/ton Au from 230.0 to 237.5'. Details from this hole are lacking. All collars from the Chavigny drilling were located during the 1991 geological mapping program. The property remained

dormant until being staked by Rivard in 1987. Rivard completed one drill hole (EX) in 1989 (OT-89-1) at 0+75E, 0+50S, close to the first two Chavigny holes. The Rivard hole intersected mixed komatiitic to tholeiitic flows and returned an assay on 0.107 oz/ton Au over 13.0'. Core recovery from this section was poor and the sample was from a composite chip sample. This assay could not be reproduced from the remaining core leading to some question to its validity. Rivard also completed some stripping and washing in the area of 0+00, 4+00S which uncovered a series of faults, shears and interflow graphitic/carbonaceous sediments. No significant gold assays were found. In 1990, Rivard completed an additional drill hole located at 7+50W, 3+75S. No significant gold assays were reported from this hole.

Other projects active in the immediate area include those by Golden Crescent Resources, HSK Minerals, Jomi Minerals and Battle Mountain Gold. Previous producers in the area include the Golden Gate and Swastika Mines.

REGIONAL GEOLOGY

The Rivard claims are underlain by Archean meta-volcanics and sediments of the Larder Lake Group and close to, and perhaps part of the Skead Group. The prominent cliffs and ridges over the north half of the property are comprised of basaltic komatiite flows of the Larder Lake Group. To the south the volcanic chemistry changes to a tholeiitic to calk-alkalic, representing a possible transition from the Larder Lake to Skead Group.

The Larder Lake Fault zone passes within 2 kilometres north of

the Rivard claims.

PROPERTY GEOLOGY

Geological mapping of the Rivard claims was completed at a scale of 1:2500 Metric on grid lines cut at 100 m centres. The grid was cut on claims north of the Blanche River as the airborne INPUT survey indicated anomalies in this area. The mapping was completed in 1991.

Three distinct lithologies were mapped during the program. This include a massive to spinifex textured basaltic komatiite flows of the Larder Lake Group, transitional tholeiitic to calc-alkaline basalt, possibly part of the Skead Group and an intermediate diorite intrusive plug. Late diabase dikes cut all of the above lithologies. Stratigraphic indicators such as pillow tops and sedimentary bedding were poorly developed or absent from the property, however the volcanic stratigraphy appears to strike 100-120 deg. with a steep north dip.

1992 EXPLORATION PROGRAM

SUMMARY

The 1992 exploration program on the Rivard claims included a total of 3.5 km of Maxi-Probe EM surveying followed by diamond drilling. Two Maxi-Probe anomalies were tested with three holes; two of which were completed for a total of 212m with one hole abandoned due to blocky ground at 13.7m. Both holes were located on line 7+00W on the west section of the property. One additional hole was drilled on the east portion of the property in an attempt to verify the gold intersection (0.107 oz/ton/13.0 ft.)

in the earlier Rivard drill hole (OT-89-1).

A) Maxi-Probe Survey

GEOEM Systems based in Toronto were contracted to test and verify a number of anomalies located by a VLF-EM survey completed during 1991. Due to the suspected nature of the overburden (clay), a number of anomalies were thought to be caused by overburden response. Since I.P. methods are also suspect to conductive overburden, the Maxi-Probe method was chosen. A number of weak to strong anomalies were located, roughly coincident with both INPUT and VLF-EM responses. The results and pseudo-sections are included in section 2 of this report written by Dr. M. Ghosh, Ph.D., P. Eng.

B) Diamond Drilling

The first anomaly tested was on line 7+00W, 4+50S and was termed a strong anomaly. It is roughly coincident with a hole drilled by Chavigny Gold Mines Ltd. in 1948 which was reported to have intersected anomalous gold, although at a grade too low for further testing at the gold price of the day. ($35.00/oz)

Two holes were attempted to test the anomaly:

Hole No.	Lat.	Long.	Dip	Az.	Depth
OT1-92	7+00W	4+16S	-45 deg.	180 deg.	13.7m
OT2-92	7+00W,	4+12S	-45 deg.	180 deg.	83.2m

OT1-92 was abandoned at 13.7m due to blocky ground despite attempts to cement the hole.

OT2-92 intersected basalt followed by intercalated siltstone, graphitic shale and basaltic komatiite with local weak

talc/chlorite alteration. The sections of graphitic shale were weakly brecciated with quartz/calcite stringers and trace to 4% disseminated pyrite. Core recovery through the graphitic sections was less than ideal at 20-39% recovery. No significant metal values were intersected although the graphitic sections were weakly mineralized with minor sphalerite blades.

A second Maxi-Probe anomaly was tested centred on line 7+00W, 0+25N and termed a moderate strength anomaly. It also occurs roughly along strike of the gold intersection in OT-89-1 possibly representing a mineralized shear at a mafic-ultramafic contact, the ultramafics to the north.

The location of this hole is:

Hole No.	Long.	Lat.	Dip	Az.	Depth
OT3-92	7+00W,	0+20S	-45 deg.	000	129.0m

This hole intersected basaltic komatiite to 52.90m followed by basalt; probably a Mg-tholeiite. A section of weak alteration with 2% pyrite was intersected from 33.84-35.98m within the komatiite.

It seams unlikely that either the mineralized section or the ultramafic-mafic contact caused the Maxi-Probe anomaly, thus the cause of this anomaly remains to be determined. No significant gold assays were intersected.

In 1989, Rivard drilled one hole OT-89-1. This hole was logged by O.D.M. geologist H. Lovell and intersected mixed basaltic komatiite and Mg-tholeiitic basalt. An assay of 0.107 oz/ton Au over 13.0' was returned from a section of broken core and chips

from 399.0-412.0'. A check assay from the remaining core returned negligible gold. DDH OT4-92 was intended to reproduce this intersection using a larger core diameter and hopefully better core recovery. The mineralized intersection from OT-89-1 also appeared to have an associated weak east-west trending Maxi Probe anomaly.

The location of drill hole OT4-92 is as follows:

Hole No.	Lat.	Long.	Dip	Az.	Depth
OT4-92	0+50S	1+00E	-45 deg.	180 deg.	139.63m

This hole intersected basalt which is probably Mg-tholeiite in composition. One short section of basaltic komatiite was intersected from 125.91-131.25m. By contrast, drill hole OT-89-1, drilled 25m west and obliquely to section 1+00E intersected 50% by volume basaltic komatiite with spinifex texture. No spinifex textured flows were observed in OT4-92.

All core which exhibited quartz/hematite stringers (thought to be a host for the intersection in OT-89-1) was split and assayed, however, only nil gold values were returned.

If the litholgies intersected in OT-89-1 and OT4-92 were identical, the assay in OT-89-1 may have attributed to contamination. However, because the lithologies between the two holes are remarkably different, the mineralization may have been caused by a north-northeast trending structure with a westerly dip not intersected in OT4-92. It should be noted that geological mapping identified a number of north-northeast trending faults with associated carbonate alteration. In fact, a projection of

the N-26 deg. E striking fault located at 0+25W, 4+25S intersects exactly with the location of the gold assay in OT-89-1.

B) Conclusions and Recommendations

Further work over the west portion of the Rivard property is not recommended. The strong Maxi-Probe anomaly on the south portion of line 7+00W appears to have been caused by barren graphitic shale. The moderate anomaly to the north remains unexplained, perhaps caused by operator error due to the steep topography north of the baseline.

Additional drilling to test both the fault hypothesis and Maxi Probe anomalies on the east portion of the property is recommended.

Respectfully Submitted

S. J. Carmichael

S.J. Carmichael, B.Sc., FGAC

Appendix A

CERTIFICATE OF QUALIFICATIONS

I, Stewart J. Carmichael, of the Town of Kirkland Lake, in the District of Timiskaming, in the Province of Ontario, Canada, do hereby certify that:

1) *I am a consulting geologist with address 42 Rand Avenue East Kirkland Lake, Ontario, P2N 1X1.*

2) *I am a graduate of McMaster University, Hamilton, Ontario, having received the degree of Bachelor of Science, Geology from the Faculty of Science in 1982. I have since practised in the field of mineral exploration continuously since graduation.*

3) *I am a Fellow of the Geological Association of Canada.*

4) *I have no direct interest, nor do I expect to receive any interest in the Rivard claims.*

5) *In addition to my personal knowledge of the area, I have made use of the records of the Ministry of Natural Resources of Ontario, and of Mr. Rivard's records in the preparation of this report.*

Dated this 1 day of September, 1993

Stewart J. Carmichael

Stewart J. Carmichael, B.Sc., FGAC

Appendix B

LIST OF EXPENDITURES

A) DIRECT COSTS

1) Maxi-Probe Survey	*$4,280.00*
2) Geological Consultant)	*1,000.00*
3) Assays	*600.90*
4) Diamond Drilling (all inclusive)	*18,816.87*
Total	*$24,697.77*

B) INDIRECT COSTS

1) Float	*$72.23*
Total	*$72.23*

TOTAL DIRECT AND INDIRECT COSTS	*$24,770.00*

Appendix C

Appendix C

DIAMOND DRILL LOGS

FERN RIVARD OPAP

DIAMOND DRILL RECORD

Co-ords -416.0 N -700.0 E

Azimuth: 180.0

Dip: -45.0

Elevation 1000.0

Length: 13.7

HOLE NO.: OT1-92

Property: OTTO OPAP

Purpose: Test Maxi-Probe Anomaly

Drilled by: F. Rivard

Date Started: June 25, 1992

Date Completed: July 8, 1992

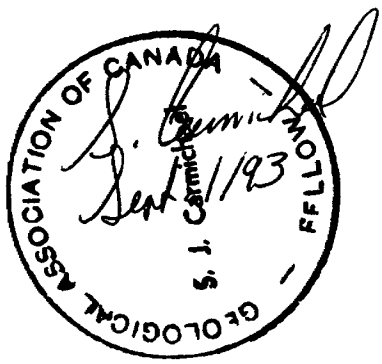
Logged by: S.J. Carmichael, July 20, 1992

Core Size: EQ, 7/8 inch

Claim Number: L-982694

Dip Tests

from (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
.00	1.52	CASING						
1.52	13.70	BASALT Dark green fine-grained basalt. Non-magnetic. Core is blocky and broken throughout. 13.70 End of Hole. Hole terminated due to caving. Casing Pulled. Core stored at Rivard residence.						



FERN RIVARD OPAP

DIAMOND DRILL RECORD

Page: 1

Co-ords -412.0 N -700.0 E

Azimuth: 180.0

Dip: -45.0

Elevation 1000.0

Length: 83.2

HOLE NO.: OT2-92

Property: OTTO RIVARD
Purpose: Test Maxi-Probe Anomaly
Drilled by: Fern Rivard
Date Started: July 9, 1992
Date Completed: July 16, 1992
Logged by: S.J. Carmichael, July 20, 1992
Core Size: EX
Claim Number: L-982694

Dip Tests

from (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
.00	2.74	CASING						
2.74	27.13	BASALT Dark green fine to medium-grained massive basalt. Weakly fractured with quartz +- calcite stringers and minor veins. Basalt is non-magnetic. Becoming finer-grained and grey in color down section at 14.0m.						
4.57	5.49	2' of ground core.						
6.49	8.02	Weakly carbonatized with 1% pyrite, 75% recovery.	192392	6.49	8.02	1.53	7.0	n/a
			192393	8.02	8.72	.70	<5.0	n/a
8.72	9.30	1 inch quartz vein at 8.93m, dip 45 deg. To C.A. 4-5% finely disseminated pyrite from 8.72-9.06', trace remainder of section.	192394	8.72	9.30	.58	<5.0	n/a
12.13	12.81	1' of ground core, 5% disseminated pyrite from 12.20-12.32m.	192395	12.13	12.81	.68	<5.0	n/a
14.02		Becoming lighter grey in color, possibly andesitic.						
16.16	16.77	Ground core.						
16.77		1 inch quartz vein, dip 48 degrees to C.A., barren.						
17.68	19.21	Increase in facturing, 2-3% disseminated blebs of pyrite in hairline fractures.	192396	17.68	19.21	1.53	<5.0	n/a
19.21	20.73	As above, 1-2% pyrite.	192397	19.21	20.73	1.52	7.0	n/a
25.92	26.22	Very fine-graind and silicious with buff coloration. Possible flow top. 1/2 inch quartz vein at 26.0m, dip 60 degrees to C.A. Trace to 1% pyrite.	192398	25.92	26.22	.30	5.0	n/a
27.13	30.18	BRECCIATED BASALT Dull green fragmented basalt, possible flow top. Fragments are sub-rounded to angular, up to 1cm in size. Minor hematite stringers throughout.						

from (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
30.18	31.16	SILTSTONE Buff laminated siltstone and breccia. Highly fractured with 2% quartz +- carbonate stringers. Weakly carbonatized with 2-4% disseminated pyrite.	192399	30.18	31.16	.98	<5.0	n/a
31.16	31.71	GRAPHITIC SHALE Black intercalated graphitic/carbonaceous shale and volcanic. 25% core recovery.						
31.71	33.54	CARBONATED ULTRAMAFIC Dark green to black ultramfic. Highly carbonated with calcite flooding +- quartz. Weak foliation at 26 degrees to C.A. 2% disseminated pyrite throughout. Unit may be an altered basaltic komatiite.						
		31.71 32.77 As above.	192400	31.71	32.77	1.06	8.0	n/a
		32.77 33.54 As above, graphitic breccia from 32.84-32.93m.	224501	32.77	33.54	.77	7.0	n/a
33.54	34.51	BRECCIATED GRAPHITIC SHALE Black fine graphitic shale. Highly fractured and brecciated with quartz +- calcite stringers. 4% disseminated pyrite as blebs and stringers. Trace to.25% sphalerite in fractures.	224502	33.54	34.51	.97	9.0	n/a
34.51	36.89	MAFIC INTRUSIVE Dark green fine-grained massive dike. Non-magnetic.						
36.89	39.94	GRAPHITIC SHALE Black weakly laminated graphitic shale, 5% pyrite throughout. 20% core recovery.	224503	36.89	39.94	3.05	12.0	n/a
39.94	47.10	BASALTIC KOMATIITE Dark olive green basaltic komatiite. Weakly to moderately talcose with 15-20% carbonate flooding with minor quartz. Alteration is close to talc-chlorite-schist.						
47.10	50.40	MAFIC INTRUSIVE Fine-grained non-magnetic diabasic dike.						
50.40	83.23	BASALTIC KOMATIITE Continuation of unit above dike. 73.84 Weak shear, dip 18 degrees to C.A. 79.60 1 inch mafic syenite vein, dip 55 degrees to C.A. 83.23 End of Hole. Casing Pulled.						

GEOLOGICAL ASSOCIATION OF CANADA
S. J. Carmichael
Sept. 1/93
FELLOW

f[redacted] (m)	to (m)	----------Description----------	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton

Core Stored At Rivard Residence.
Additional Assays.
32.77-33.54 0.05% Zn, 2 ppm Ag.
33.54-34.51 0.06% Zn, <2 ppm Ag.
36.89,39.94 0.05% Zn, 1 ppm Ag.

FERN RIVARD OPAP

DIAMOND DRILL RECORD

Co-ords -20.0 N -700.0 E

Azimuth: 360.0

Dip: -45.0

Elevation 1000.0

Length: 129.0

HOLE NO.: OTJ-92

Property: OTTO RIVARD

Purpose: Test Maxi-Probe Anomaly

Drilled by: Fern Rivard

Date Started: July 18, 1992

Date Completed: August 9, 1992

Logged by: S.J. Carmichael, August 12, 1992

Core Size: EX, IEX

Claim Number: L-982695

Dip Tests

from (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
.00	14.02	CASING						
14.02	33.84	BASALTIC KOMATIITE Dark green chloritic basaltic komatiite. Possible flow top (polysuturing) throughout. Weakly talcose in sections. Weakly to moderately fractured with calcite/chlorite stringers. Core is blocky and broken throughout with 90% recovery.						
33.84	35.98	MINERALIZED ZONE Possible mafic dike. Dark green to green-grey on color. Fine-grained. Generally more massive than above volcanics. 10-15% quartz+-calcite stringers and flooding throughout. Mineralized with 2-4% disseminated pyrite.						
		33.84 35.06 Trace pyrite from 33.84-34.30m, increasing to 2% remainder of section.	224504	33.84	35.06	1.22	<5.0	n/a
		35.06 35.98 4% finely disseminated pyrite throughout.	224505	35.06	35.98	.92	7.0	n/a
35.98	52.90	BASALTIC KOMATIITE Continuation of upper volcanic sequence. Polysuturing more evident.						
		52.59 52.90 Silicified with quartz flooding from 52.50-52.84m, dip 52 deg. To C.A. Trace to 1% fine pyrite.	224506	52.59	52.90	.31	14.0	n/a
52.90	128.96	BASALT Dark green fine to medium-grained Mg-tholeiite. Slightly lighter green in color than the basaltic komatiite. Massive with a lack of polysuturing. Upper contact with the ultramafics may be gradational. Unit locally is spherulitic with short sections of flow						

f[redacted] (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
		top breccia to 65.55m.						
56.56		1/2 inch quartz vein, dip 14 deg. To C.A.						
77.90	82.77	Coarser-grained phase.						
96.01		Change in core size to IEX (1 inch).						
109.76	111.13	Basalt, 1-2% disseminated pyrite throughout.	224507	109.76	111.13	1.37	17.0	n/a
116.01	117.38	Weak local silicification with 1% disseminated pyrite and pyrite blebs.	224508	116.01	117.38	1.37	<5.0	n/a
117.38	118.90	2% quartz stringers, trace pyrite.	224509	117.38	118.90	1.52	30.0	n/a
118.90	119.82	As above.	224510	118.90	119.82	.92	6.0	n/a
119.82	120.73	Weak silicification, 1-2% finely disseminated pyrite.	224511	119.82	120.73	.91	25.0	n/a
120.73	122.04	Possible healed fault at 120.88m with 2 inches of brecciated quartz flooding. Trace to 1% dissemianted pyrite throughout.	224512	120.73	122.04	1.31	13.0	n/a
128.96		End of Hole.						
		Casing Pulled.						
		Core Stored At Rivard Residence.						
		SLUDGE ASSAYS.						
		67.07-70.12m 10 PPB.						
		70.12-73.17m 21 PPB.						
		73.17-76.22M 38 PPB.						
		76.22-79.27M 14 PPB.						

GEOLOGICAL ASSOCIATION OF CANADA
S. J. Carmichael
Sept. 1/93
FELLOW

FERN RIVARD OPAP

DIAMOND DRILL RECORD

Page: 1

Co-ords -50.0 N 100.0 E

Azimuth: 180.0

Dip: -45.0

Elevation 1000.0

Length: 139.6

HOLE NO.: OT9-92

Property: OTTO RIVARD

Purpose: Test mineralization intersected in OT-89

Drilled by: Fern Rivard

Date Started: August 15, 1992

Date Completed: October 14, 1992

Logged by: S.J. Carmichael, Oct. 20, 1992

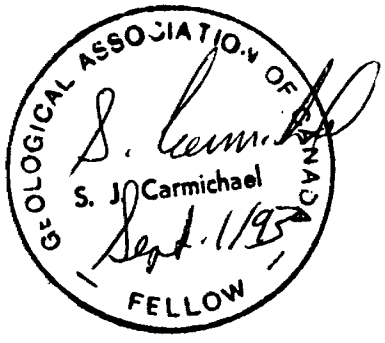
Core Size: IEX

Claim Number: L-982690

Dip Tests

from (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
.00	5.49	CASING						
5.49	125.91	BASALT Dark green fine-grained basalt, possibly a Fe-tholeiite with local weak magnetism. Generally massive with minor quartz +- calcite +- hematite stringers. Sections of the volcanics appear to be fragmental in places and may be tuffaceous. Core is moderately blocky and broken.						
24.39	25.00	Sparry calcite breccia from 24.54-24.60m, weak fuchsitic alteration, nil sulfides.	224551	24.39	25.00	.61	<5.0	nil
26.62	26.68	Diabse dike, very fine-grained, moderately magnetic.						
37.20	38.72	1-2% quartz/calcite stringers. Trace pyrite.	224552	37.20	38.72	1.52	<5.0	nil
38.72		Fault Ground core with clay gouge, foliation at 38.87m at 46 deg. To C.A.						
40.82		1/2 inch vuggy quartz/clacite vein, barren.						
54.57	54.88	Ground core, possible fault.						
62.50	64.02	Minor quartz/calcite stringers, barren.	224553	62.50	64.02	1.52	<5.0	nil
64.02	65.55	As above.	224554	64.02	65.55	1.53	<5.0	nil
65.55	67.07	As above.	224555	65.55	67.07	1.52	<5.0	nil
67.07	68.60	1 ft of ground core from 68.29-68.60m.	224556	67.07	68.60	1.53	<5.0	nil
69.21	69.36	Possible flow top or tuffaceous section, sub angular fine siliceous fragments followed by a fine-grained flow. Tops may be up hole.						
69.82	70.43	As above.						
72.74	72.93	Fine-grained magnetic diabase dike, irregular contacts.						
86.22		Fault Possible fault, ground clay gouge and gravel.						
93.60	96.89	Fragmental section, may be tuffaceous.						
96.86	96.89	Weak shear.						

fr (m)	to (m)	Description	Sample No.	from (m)	to (m)	Length (m)	AU PPB	Au-2 oz/ton
	108.08	109.15 1% quartz/calcite +- hematite stringers, barren.	224557	108.08	109.15	1.07	<5.0	nil
	114.02	116.01 Fragmental section, may be tuffaceous.	224560	116.31	117.07	.76	<5.0	nil
	119.79	Fault Seam of gouge.						
	120.52	121.95 1% quartz/clacite stringers, barren.	224561	120.52	121.95	1.43	<5.0	nil
	122.23	Fault Possible fault with ground gravel core.						
	122.93	123.63 2% quartz/calcite flooding and stringers, barren.	224558	122.93	123.54	.61	<5.0	nil
125.91	131.25	BASALTIC KOMATIITE						
		Dark green fine-grained weakly talcose basaltic komatiite. No spinifex or polysuturing present. Relatively soft compared to above basalt. Weakly fractured with 4% quartz stringers. Trace euhedral pyrite throughout.						
	129.70	130.61 1% euhedral pyrite.	224559	129.70	130.61	.91	<5.0	nil
131.25	139.63	BASALT						
		Dark green fine-grained basalt. Weakly fractured with <1% epidote stringers. Minor quartz calcite stringers.						
	135.61	136.52 1% quartz/clacite stringers, trace chalcopyrite in stringer at 135.79m.	224562	135.61	136.52	.91	<5.0	nil
	139.63	End of Hole.						
		Casing Pulled.						
		Core Stored At Rivard Residence.						
		SLUDGE ASSAYS.						
		99.01-106.68 <5 PPB.						
		106.68-115.98 <5 PPB.						
		115.98-122.22 <5 PPB.						
		122.22-133.81 <5 PPB.						
		133.81-137.16 8 PPB.						



Appendix D

ASSAY CERTIFICATES

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

46250 # Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

October 28

Work Order # : 920390
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold g/t	Gold Oz/T	
261051	224551	5	0.001	
261052	224552	5	0.001	
261053	224553	5	0.001	
261054	224554	5	0.001	
261055	224555	5	0.001	
261056	224556	5	0.001	
261057	224557	5	0.001	
261058	224558	5	0.001	
261059	224559	5	0.001	
261060	224560	5	0.001	
261060	224560	5	0.001	Check
261061	224561	5	0.001	
261062	224562	5	0.001	
261062	224562	5	0.001	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

LF-30

Per: G. Duncan

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ACCURASSAY LABORATORIES

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46054

Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

October 14 92

Work Order # : 920376
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
260755	224517	8	<0.001	
260755	224517	5	<0.001	Check

SLUDGE 439-450 FT

Oh

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

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46120

Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

October 6 92

Work Order # : 920360
Project :

SAMPLE NUMBERS		Gold	Gold	
Accurassay	Customer	ppb	Oz/T	
260309	224516	<5	<0.001	
260309	224516	<5	<0.001	Check

04-92 401-439 FT

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CHEMIST

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Per: G. Duncan

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TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

46081

Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

October 1 92

Work Order # : 920337
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
260159	224515	10	<0.001	
260159	224515	10	<0.001	Check

SLUDGE 380½ - 401 FT

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Dr. G. Duncan
CHEMIST

Per: G. Duncan

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KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

45990 **Certificate of Analysis**

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

September 30 92

Work Order # : 920333
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
259871	224514	7	<0.001	
259871	224514	13	<0.001	Check

SLUDGE 04/92 350-380½ FT

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Dr. G. Duncan
CHEMIST

Per: G. Duncan

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TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

45916 # Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

September 23 92

Work Order # : 920328
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
259667	224513	<5	<0.001	
259667	224513	<5	<0.001	Check

SLUDGE 04/92 325-350 FT

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

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Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Established 1928

Geochemical Analysis Certificate

2W-0651-RG1

Company: **F. RIVARD**

Date: JUL-08-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 1 SLUDGE samples submitted JUL-03-92 by .

Sample Number	Au PPB
7193	17

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244 FAX (705) 642-3300

Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

2W-0788-RG1

Company: **F. RIVARD**
Project:
Attn:

Date: AUG-06-92
Copy 1. BOX 1091 KIRKLAND LAKE, ONT. P2N 3L5

We hereby certify the following Geochemical Analysis of 4 SLUDGES samples submitted JUL-31-92 by .

Sample Number	Au PPB
7237	10
7238	21
7239	38
7240	14

Certified by G. Tebo

P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705) 642-3244, FAX (705) 642-3300

Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

2W-0645-RG1

Company: **F. RIVARD**

Date: JUL-03-92

Project:

Attn:

We hereby certify the following Geochemical Analysis of 1 SLUDGE samples submitted JUL-02-92 by .

Sample Number	Au PPB
7192	7

Certified by Donna Gardner

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

ACCURASSAY LABORATORIES
A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

45631

Certificate of Analysis

0 3192

Rivard, Mr. Fern
876 Gov't Rd. W.
Chaput Hughes, Ontario
P0K-1A0

July 22 92

Work Order # : 920263
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
258883	192392	7	<0.001	
258884	192393	<5	<0.001	
258885	192394	<5	<0.001	
258886	192395	<5	<0.001	
258887	192396	<5	<0.001	
258888	192397	7	<0.001	
258889	192398	<5	<0.001	
258890	192399	5	<0.001	
258891	192400	<5	<0.001	
258892	224501	8	<0.001	
258892	224501	7	<0.001	Check
258893	224502	9	<0.001	
258894	224503	12	<0.001	
258894	224503	12	<0.001	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

LF-30

Per: G. Duncan

ORIGINAL

ACCURASSAY LABORATORIES

A DIVISION OF BARRINGER LABORATORIES LIMITED, REXDALE, ONTARIO
BOX 426
KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

45636

Certificate of Analysis

Rivard, Mr. Fern
876 Gov't Rd. W.
Chaput Hughes, Ontario
P0K-1A0

July 23 92

Work Order # : 920263
Project :

SAMPLE NUMBERS		Silver	Zinc
Accurassay	Customer	ppm	ppm
258892	224501	2	490
258893	224502	<1	630
258894	224503	1	470

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
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Dr. G. Duncan
CHEMIST

Per: G. Duncan

LF-30

ORIGINAL

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KIRKLAND LAKE, ONTARIO, CANADA P2N 3J1
TEL.: (705) 567-3361

President: Dr. GEORGE DUNCAN, M.Sc., Ph. D., C. Chem (Ont.), C. Chem (U.K.), M.C.I.C., M.R.S.C., A.R.C.S.T.

45861

Certificate of Analysis

Rivard, Mr. Fern
P.O. Box 1091
KIRKLAND LAKE, Ontario
P2N 3L1

August 14 92

Work Order # : 920287
Project :

SAMPLE NUMBERS Accurassay	Customer	Gold ppb	Gold Oz/T	
259175	224504	<5	<0.001	
259176	224505	7	<0.001	
259177	224506	14	<0.001	
259178	224507	17	0.001	
259179	224508	<5	<0.001	
259180	224509	30	0.001	
259181	224510	6	<0.001	
259182	224511	25	0.001	
259183	224512	9	<0.001	
259183	224512	13	<0.001	Check

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
Dr. G. Duncan
CHEMIST

LF-30

Per: G. Duncan

ORIGINAL

Ministry of Northern Development and Mines

Ontario

Report of Work Conducted After Recording Claim

Mining Act

Assess. Files

Transaction Number

DOCUMENT No. W9380 • 00246

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670 7264

Instructions: - Please type or print and submit in duplicate
- Refe
Rec
- A se
- Tech
- A sk

42A01SE9705 30 OTTO

900

ONTARIO GEOLOGICAL SURVEY
GIS - ASSESSMENT FILES
NOV 15 1993
RECEIVED

Recorded Holder(s)

Address: Fernand Rivard, 867 Government Rd. West, Kirkland Lake

Telephone No.: 187868, 705-567-5891

Mining Division: Larder Lake

Township Area: OTTO TWP.

Claim Map No.: M-379

Dates Work Performed: From June 20/92 to Oct. 20/92

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	
Physical Work, Including Drilling	Diamond Drilling 365.5 m. 1Ex
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

Total Assessment Work Claimed on the Attached Statement of Costs: 20,490.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Fernand Rivard	867 Government Rd., Kirkland Lake
Phil Rivard	59 Second St. Kirkland Lake

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: Oct. 1/93

Signature: F. Rivard

Certification of Work Report

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

Name and Address of Person Certifying: Stewart Carmichael, 42 Rand Av. East, Kirkland Lake

Telephone No.: 705-567-7206

Date: Oct. 1/93

Certified By (Signature): S. Carmichael

For Office Use Only

Total Value Cr. Recorded: $9228

$11,262 RESERVE

Date Recorded: Oct. 04, 1993

Deemed Approval Date: January 02, 1994

Date Notice for Amendments Sent:

Mining Recorder: [signature]

Date Approved: Oct 08, 1993

Received Stamp: LARDER LAKE MINING DIVISION
93 OCT 4 PM 12 05
RECEIVED

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	982689	1	0	~~2,044~~ 892		
	982690 *	1	6,830.00	~~2,044~~ 972	~~4,781~~ 2,188	3670
	982691	1	0	~~2,044~~ 892		
	982692	1	0	~~2,044~~ 972		
	982693	1	0	~~2,044~~ 972		
	982694 x	1	6,830.00	~~2,044~~ 800	~~4,781~~ 2,188	3842
	982695 x	1	6,830.00	~~2,044~~ 972	~~4,781~~ 2,188	3750
	982696	1	0	~~2,044~~ 892		
	982697	1	0	~~2,044~~ 972		
	982698	1	0	~~2,044~~ 892		
	10		20,490.00	~~20,490.00~~ 9,338	~~14,343.00~~ 6484	$11262
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

0241 (03/91)

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☒ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

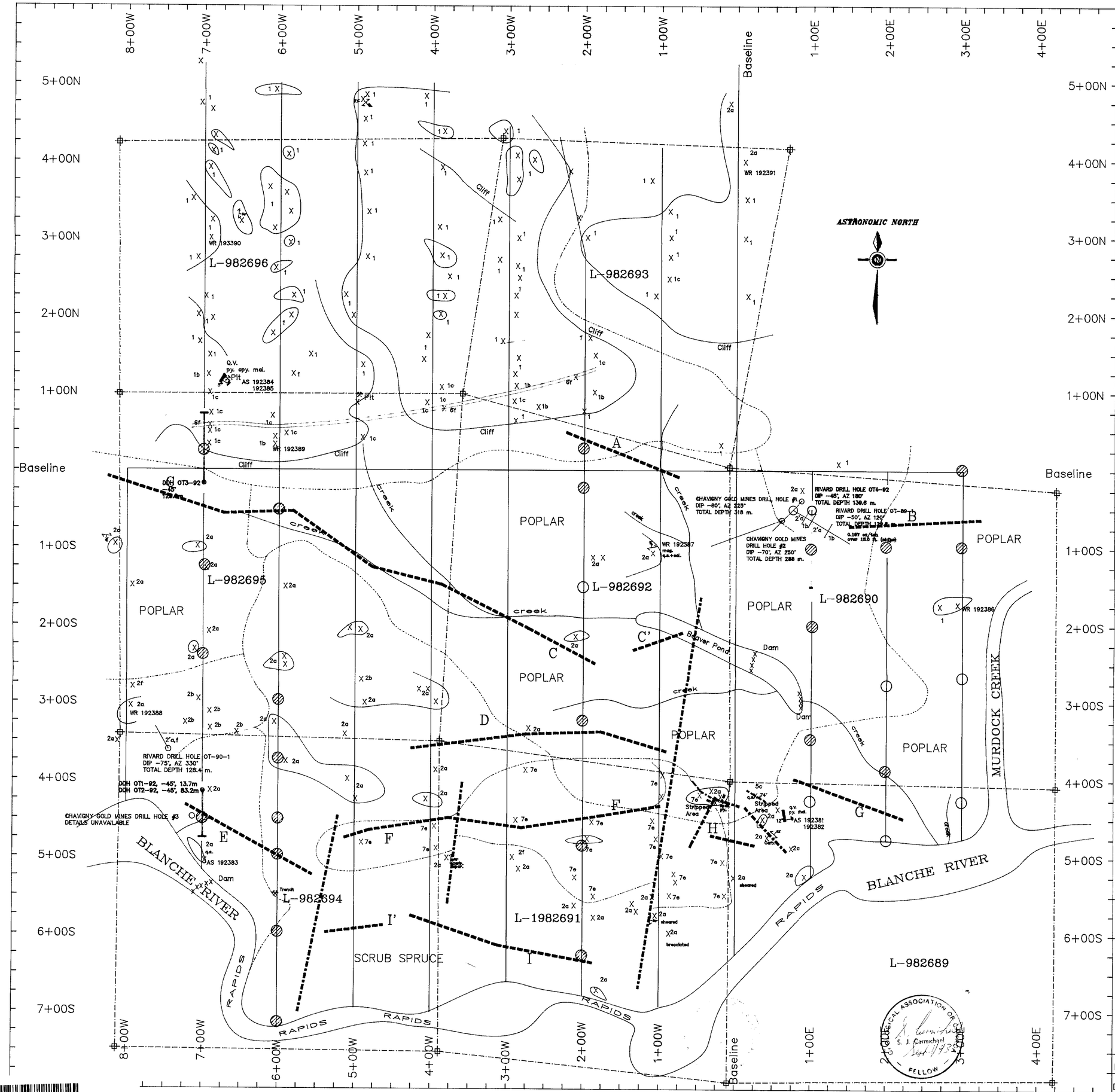
Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature

Date



LEGEND

FELSIC TO INTERMEDIATE INTRUSIVE ROCKS

7 *7 Undivided*
7a Granite
7b Syenite
7c Feldspar Porphyry
7d Granodiorite
7e Diorite
7f Monzonite

MAFIC TO ULTRAMAFIC INTRUSIVE ROCKS

6 *6 Undivided*
6a Gabbro
6b Gabbro Anorthosite
6c Anorthosite
6d Pyroxenite
6e Peridotite
6f Diabase
6g Lamprophyre

SEDIMENTS

5 *5 Unsubdivided*
5a Greywacke
5b Chert
5c Graphitic shale
5d Conglomerate
5e Sandstone
5f Shale

FELSIC METAVOLCANICS

4 *4 Unsubdivided*
4a Rhyolite
4b Rhyolite breccia
4c Dacite
4d Dacite breccia

MAFIC METAVOLCANICS

2 2' Fe Mg *2 Unsubdivided*
2a Massive flows
2b Pillowed flows
2c Massive to well foliated coarse-grained flows
2d Variolitic flows
2e Tuff and lapilli-tuff
2f Flow-top breccia

ULTRAMAFIC METAVOLCANICS

1 *1 Unsubdivided*
1a Massive, polysutured serpentinized flows
1b Spinifex textured flows
1c Ultramafic agmatites
1d Talc-carbonate alteration

SYMBOLS

- Claim Post
- Claim Line
- Trail
- Creek
- Outcrop Boundary
- Small Outcrop or Station
- Whole Rock or Assay Sample Location
- Strike and Dip of Foliation
- Strike and Dip of Bedding
- Geological Contact
- Fault
- q.s. Quartz Stringers
- q.v. Quartz Vein With Width and Dip
- cal. Calcite Stringers
- mag. Magnetic Attraction
- py. Pyrite
- cpy. Chalcopyrite
- mal. Malachite
- carb. Carbonate Alteration
- spar. Sparry Calcite
- Drill Hole
- Pit or Trench
- VLF-EM Anomaly

MAXI PROBE ANOMALY
RED – GOOD TO EXCELLENT
YELLOW – MEDIUM TO GOOD
BLACK – MINOR TO WEAK

SCALE 1:2500

50 0 50 100 150 200
METRES

OTTO TWP. PROPERTY

SURFACE GEOLOGY PLAN

OTTO TOWNSHIP
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONT.

NTS 42 A/SE	SCALE: 1:2500	PROJECT: OP93-270
DATE: JAN. 1992	DRAWN BY: S.J.C.	REVISED: OCTOBER, 1993 DRAWING NO. 1

CANADIAN GEOLOGICAL ASSOCIATION OF CANADA
S. J. Carmichael
FELLOW

42A01SE0705 30 OTTO

DRILL HOLE SECTION 1+00E
SECTION LOOKING WEST
CLAIM L-982690

1+00S

WEAK MAXI PROBE ANOMALY

DDH OT-89-1 DRILLED 25m WEST OF SECTION
AT AZIMUTH 120° OR 60° OBLIQUE TO SECTION
DIP -50°

50.00S
75.00E
100.00E

1000

1000

45°

Nil/0.61m
DIABASE DIKE

Nil/1.52m

Nil/1.52m
Nil/1.53m
Nil/1.52m
Nil/1.53m

DIABASE DIKE

QTZ/CALCITE +- HEMATITE STRINGERS

Nil/1.07m
Nil/0.76m
Nil/1.43m
Nil/0.61m
Nil/0.91m
Nil/0.91m

EOH
139.63m

0.107/3.97m

EOH
129.57m

900

900

OT4-92

OT-89-1

1+00S

210

42A01SE9705 30 OTTO

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LEGEND

CASE — CASING

ROCK CODES

SEDIMENTARY UNITS

- GRAPHITIC SHALE
- BRECCIATED GRAPHITIC SHALE
- SILTSTONE

VOLCANIC UNITS

- BASALTIC KOMATIITE
- CARBONATED ULTRAMAFIC
- BASALT
- BRECCIATED BASALT
- MINERALIZED ZONE
- MAFIC INTRUSIVE

ALL ASSAYS ARE IN OZ/TON Au/METERS

FAULT/SHEAR

SCALE 1:500

10 0 20 40

METRES

OTTO TOWNSHIP PROPERTY

DRILL HOLE SECTION 1+00E
DRILL HOLES OT4-92, OT-89-1
SECTION LOOKING WEST

OTTO TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.
LARDER LAKE MINING DIVISION

NTS: 42 A/SE	Scale: 1:500 Metric	Revised:
		Date: Nov., 1992
Project: OP92-122	Drawn By: S.J.C.	Drawing No. 2

SECTION LOOKING WEST
CLAIM L-982694

5+00S

4+00S

CENTRE OF VLF-EM ANOMALY

1000

1000

900

900

CENTRE OF MAXI-PROBE ANOMALY

416.00S 700.00W

412.00S 700.00W

45°

OT1-92

13.70m EOH

OT2-92

83.23m EOH

7.00 /1.53
<5.00 /0.58
<5.00 /0.88
<5.00 /0.70
<5.00
7.00 /1.53
1.52
5.00 /0.30
<5.00
8.00 /0.98
9.00 /1.06
12.00 /3.05
0.97
7.00 /0.77

LEGEND

CASE CASING

ROCK CODES

SEDIMENTARY UNITS

GRAPHITIC SHALE

BRECCIATED GRAPHITIC SHALE

SILTSTONE

VOLCANIC UNITS

BASALTIC KOMATIITE

CARBONATED ULTRAMAFIC

BASALT

BRECCIATED BASALTIC

MINERALIZED ZONE

MAFIC INTRUSIVE

ALL ASSAYS ARE IN PPB Au/SAMPLE LENGTH (m)

SCALE 1:500

10 0 20 40

METRES

OTTO TWP. PROPERTY

DRILL HOLE SECTION 7+00W
DRILL HOLES OT1-92, OT2-92
SECTION LOOKING WEST

OTTO TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.
LARDER LAKE MINING DIVISION

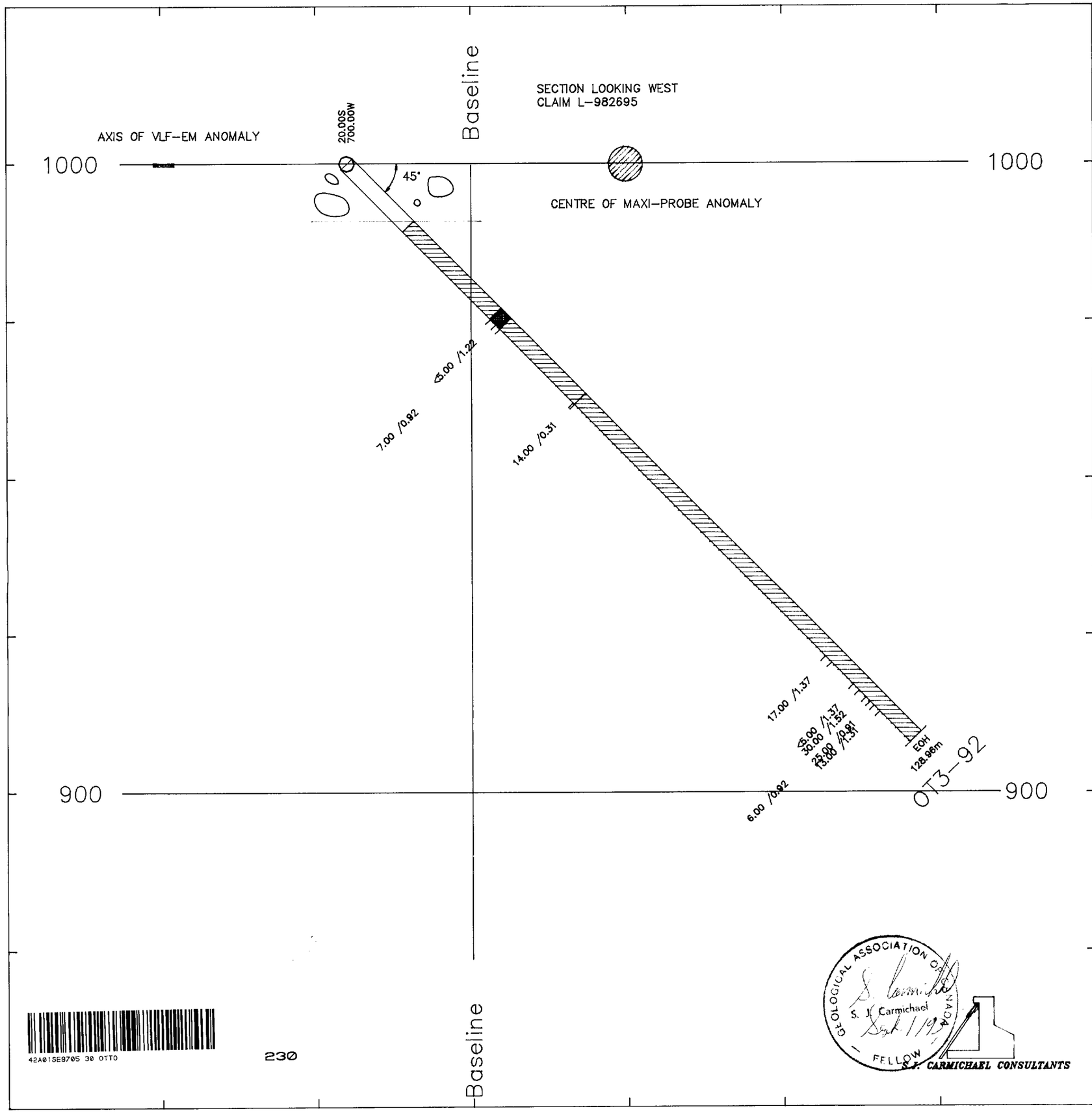
NTS: 42 A/SE	SCALE: 1:500 Metric	REVISED:
		DATE: Sept., 1992
PROJECT: OP92-	DRAWN BY: S.J.C	DRAWING No. 2

GEOLOGICAL ASSOCIATION OF CANADA
S. J. Carmichael
Sept. 1/93
FELLOW

S.J. CARMICHAEL CONSULTANTS

42A01SE9705 30 OTTO

220



LEGEND

CASE — CASING

ROCK CODES

SEDIMENTARY UNITS

- GRAPHITIC SHALE
- BRECCIATED GRAPHITIC SHALE
- SILTSTONE

VOLCANIC UNITS

- BASALTIC KOMATIITE
- CARBONATED ULTRAMAFIC
- BASALT
- BRECCIATED BASALT
- MINERALIZED ZONE
- MAFIC INTRUSIVE

ALL ASSAYS ARE IN PPB Au/SAMPLE LENGTH (m)

SCALE 1:500

10 0 20 40

METRES

OTTO TWP. PROPERTY

DRILL HOLE SECTION 7+00W
DRILL HOLE OT3-92
SECTION LOOKING WEST

OTTO TOWNSHIP
DISTRICT OF TIMISKAMING, ONT.
LARDER LAKE MINING DIVISION

NTS: 42 A/SE	SCALE: 1:500 Metric	REVISED: DATE: AUGUST, 1992
PROJECT: OP92-	DRAWN BY: S.J.C.	DRAWING No. 3