010

GEOLOGICAL REPORT ON THE ORFORD RESOURCES LTD.

LIZAR, ERMINE AND LIPTON TOWNSHIP PROPERTY

Sault Ste Marie Mining Division
Ontario

by

Randy D. Maass H.BSc.
Consulting Geologist

October 28, 1988

2.9121

DURHAM GEOLOGICAL SERVICES INC.

Box 1330
Timmins, Ontario
P4N 7J8

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ORFORD RESOURCES LTD.
SCALE 1:5000
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MAP 2 OF 3

GEOLOGY MAP
ORFORD RESOURCES LTD.
SCALE 1:5000
MAP 3 OF 3

INTRODUCTION

This report represents the results of a geological mapping and prospecting program completed on the 200 claim, Orford Resources Ltd. property in Ermine, Lipton and Lizar townships.

The program was conducted in July and August of 1988 and was designed to determine the granitic versus volcano-sedimentary terrain on the property.

Reconnaissance mapping has revealed that the geology consists of three main rock types; mafic volcanics and sediments, granite and granodiorites, gneisses and migmatites. Later northwest and northeast trending diabase dykes have crosscut all other rock types.

LOCATION AND ACCESS

The property is located in Lizar, Ermine and Lipton townships, approximately 20 km. southwest of the small village of Oba, Ontario. Oba is a railway community located at the junction of the Algoma Central and Canadian National Railways, and is located approximately 110 km. south of Hearst, some 250 kilometres northwest of Timmins.

Oba is reached by first travelling south along Hwy. 583 for a distance of 40 km. and then travelling a further 70 km. south along a gravel road. From Oba, access to the property is by boat via the Oba River, a series of small lakes and two portages southwest to Kabinakagami Lake. The most practical access to the property is by a 70 km. float plane trip from Hearst or a 100 km. float plane trip from Hawk Junction.

PROPERTY

The Orford Resources Ltd. property consists of 200 unpatented contiguous mining claims located in Ermine, Lizar and Lipton townships Sault Ste Marie Mining Division of Ontario.


JAMES BAY
PROPERTY LOCATION
ONTARIO
QUEBEC
HEARST
ABITIBI GREENSTONE BELT
KAPUSKASING
COCHRANE
LA SARRE
ROUYN
MARATHON
CHAPLEAU
LAKE SUPERIOR
NORTH BAY
GEORGIAN BAY
LAKE HURON
LAKE MICHIGAN
TORONTO
LAKE ONTARIO
LAKE ERIE
N
LEGEND
Archean greenstone and associated Sediments
Granitic Terrain
Archean Sediments, some volcanics and intrusions
Revisions
DURHAM GEOLOGICAL SERVICES INC.
ORFORD RESOURCES LTD.
PROPERTY LOCATION
Date Sept./87
Drawn K.B.
Scale 1:7603200
N.T.S.
Approved B.D.
Figure 1

The claims along with their recording and expiry dates are listed below:

CLAIM NUMBERS	RECORDING DATE	EXPIRY DATE
P-916529 to P-916531	May 13/86	May 13/89
P-934201 to P-934203	Sep.02/86	Sep.02/89
P-952951 to P-952954	Feb.24/87	Feb 24/90
P-952973 to P-952980	Feb.24/87	Feb.24/90
P-952999 to P-953006	Feb. 24/87	Feb.24/90
P-953025 to P-953028	Feb. 24/87	Feb 24/90
P-953041 to P-953056	Feb. 24/87	Feb 24/90
P-971955 to P-971976	Feb. 24/87	Feb 24/90
P-971987 to P-972047	Feb. 24/87	Feb 24/90
P-972079 to P-972102	Feb. 24/87	Feb 24/90
P-972108 to P-972118	Feb. 24/87	Feb 24/90
P-972123 to P-972144	Feb. 24/87	Feb 24/90
P-972150 to P-972163	Feb. 24/87	Feb.24/90

TOTAL NUMBER OF CLAIMS = 200

KABINAKAGAMI

LAKE

1"=1/2 mi

0 1/2 1 1 1/2

N

GEOLOGICAL ASSOCIATION OF CANADA
R. B. DURHAM
FELLOW

REVISIONS	DURHAM GEOLOGICAL SERVICES INC.
	ORFORD RESOURCES LTD.
	CLAIM MAP
	Date: March, 1967 | Drafted: K. B. | Scale: 1"=1/2mi
	N. T. S. | Approved: B. D. | Figure: 3

HISTORY AND PREVIOUS WORK

The mafic volcanic belt which underlays the Orford Resources Ltd. property extends to the east into Hawkins and Irving townships. These townships have been sporadically explored for gold since 1923 when surface sampling by G. Taylor returned results as high as 0.84 oz/ton Au across eight feet in central Hawkins Township 22 km. east of the Orford Resources Ltd. property.

In 1935, Hollinger Gold Mines Ltd. carried out a prospecting and diamond drilling program on the original Taylor showing area. Assay results from the seven drill hole program included values as high as 1.0 oz/ton Au over very narrow widths.

In 1936 the Shenango Mining Company carried out prospecting and trenching programs and sank a small open pit on a mineralized zone approximately 1.2 km. east of Langdon Station, 2 km. west of the Taylor showing in central Hawkins township. Diamond drill results included 0.18 oz/ton Au over 20 feet (1939), 0.22 oz/ton Au over 15 feet (1939) and 0.67 oz/ton Au over 20 feet (1935) and 12.9 m of crosscutting was completed. In 1939 a shaft had been sunk to 38 m. Very limited drifting and crosscutting were completed during 1936, 1937 and 1945. Total production was 66 oz of gold and 37 oz. of silver.

Magi Gold Mines completed a magnetometer survey, and induced polarization survey and three diamond drill holes on a block of 12 claims south of little Watt Lake (north of the Taylor showing) during 1973-1974. Nothing of economic significance was encountered and the claims were allowed to lapse.

In 1974-1975 Rio Tinto Exploration (MNR file 1667) carried out an electromagnetic survey and completed two diamond drill holes on an eighteen claim property just west of Langdon Station, 21 km east of the Orford Resources Ltd. property. They also completed a magnetometer survey and a horizontal loop electromagnetic survey over a weak Dighem airborne E.M. conductor on a block of eight claims in the southwest portion of Hawkins township but no further was completed.

In the late 1970's, St. Joseph Exploration held a 39 claim property that stretched easterly from Langdon Station to the eastern boundary of Hawkins township covering both the Shenango and Taylor gold showings. Geological mapping of the claims was completed during the fall of 1979, prior to ground electromagnetic and magnetic surveys. No further work was reported and the claims were allowed to lapse.

Falconbridge Ltd. carried out an extensive exploration program on its 400 contiguous claim group in Hawkins and Walls townships that includes the former Taylor and Shenango prospects,

approximately 13 km east of the Orford Resources Ltd. property.

Initially 1273 soil (humus) samples were taken along claim lines, the results of which indicate that background gold content of the humus layer in the area was 5 ppb. Anomalous values including 24, 31, 32, 80 and 90 ppb gold were obtained in an east trending anomalous zone. None of the rock samples collected along claim boundaries contained greater than 85 ppb gold, however two samples obtained while prospecting were found to contain 9,900 ppb (0.26 oz/ton Au) and greater than 10,000 ppb Au (0.26 oz/ton Au).

Follow-up work consisted of induced polarization surveying over part of the "Gervais Option" in the summer of 1983. They have since completed at least 58 diamond drill holes on their holdings in Hawkins and Walls townships. Additional geochemical sampling geophysical surveying and geological mapping have also been completed.

Golden Range Resources Inc. held in 1984 86 contiguous unpatented mining claims in western Hawkins township and a second group of 36 contiguous unpatented claims in south-central Hawkins Township. Work on the two properties consisted of magnetometer and VLF electromagnetic surveys completed in 1984 and geological mapping and sampling in 1985.

On the northern claim group, referred to as the Hawkins #1 property, the VLF electromagnetic survey defined numerous conductive trends. The magnetometer survey defined a roughly east-west striking magnetic anomaly that appears to correlate with a zone of amphibolite that occurs near the Taylor and Shenango prospects of the Falconbridge property to the east. The magnetic low to the south of the amphibolite appears to correspond to a zone of altered felsic tuffaceous rocks.

In 1985 geological mapping and geochemical surveys were done on the Hawkins #1 property. The geology of the property is reported by T. J. Neelands (1986), (MNR assessment files .2804) to be comprised of "an east trending suite of Archean mafic and felsic metavolcanic rocks in the upper greenschist to lower amphibolite facies of regional metamorphism". Outcrop exposure is less than 5%. Fifty-six rock samples were collected and analyzed for their gold and molybdenum content. Eight of the samples contained more than 25 ppb gold. Two mafic tuff samples containing pyrite assayed 340 ppb gold and 125 ppb gold.

The soil geochemical survey consisted of the collection and analysis of 1017 B horizon samples. Values as high as 40 ppb gold were reported.

An identical program was carried out on the Hawkins #2 Group. Again, numerous VLF anomalies were defined, and the magnetic survey coupled with geological mapping indicates that the property is underlain by a generally east trending suite of mafic and felsic metavolcanics, tuffs, and related sediments.

Minor ironstone containing pyrite and pyrrhotite was located in the extreme southwest corner of the property. A soil geochemical anomaly was also defined in this area. A grab sample from an outcrop of felsic tuff containing pyrite in the south central portion of the property was found to contain 790 ppb gold. Further work was recommended on both properties.

Algoma Central and Hudson Bay Railway Company carried out an aeromagnetic and airborne electromagnetic survey in late 1956 over much of the central part of Derry Township. Limited ground geophysics were completed on specific targets through 1963, at which point the project was abandoned.

The Charpentier Gold-Silver occurrence is located 8 km southwest from the Orford Resources Ltd. property. Stripping and trenching of a banded quartz vein with a strike length of over 100 ft has shown gold, pyrite, galena and pyrrhotite. No assay results were recorded.

The Charpentier Lead-Zinc occurrence is located 1 km northwest from the Charpentier Gold-Silver occurrence. Stripping and trenching of a shear zone has shown sulphide rich veins and lenses containing pyrite, galena and sphalerite. No assays were recorded.

The Kabinakagami Lake Galena occurrence is located .5 km north of the Orford Resources Ltd. property. This occurrence is associated with quartz veining. Minor pyritic stringers in the mafic metavolcanics in the area yielded 0.04% Cu and trace Au.

The Kabinakagami Lake magnetite occurrence is located 3 km east from the Orford Resources Ltd. property. The magnetite vein is 3 cm side and is hosted in trondhjemite gneiss. Assay results in percent are: Fe 48.8%, TiO 0.03%, Cr 0.01%, V 0.02% and Ni 0.01%.

Hiawatha Gold Mines Ltd. (1937-1939) did extensive work on a property adjacent to the Orford Resources Ltd. property to the southwest.

Four showings are found on the property. A shaft was sunk to a depth of 229 feet. Mineralization included gold, pyrite, chalcopyrite, galena and molybdenite. The quartz veining has a strike length of 1500 ft. and is associated with a quartz porphyry dyke intruded the metavolcanics. A 25 ton per day amalgamation

mill operated between 1937-1940 processing 1,931 tons of rock having a total value of $6,826 Au.

The Kalibak North showing (central Lizar township) was stripped, trenched and diamond drilled showing pyrrhotite, pyrite, gold, chalcopyrite, sphalerite and galena. Most of the work was done at Pit. No. 1. Gold is reported to be located near a fold in the porphyry-amphibole contact zone. Gold appears to be localized in a cherty sulphide rich quartz vein.

In 1937 twelve chip samples were taken with the best results being 0.01 oz/ton Au, 0.02 oz/ton Au, 0.068 oz/ton Au, 0.09 oz/ton Au and 0.15 oz/ton Au (Gold at $35/oz). Three drill holes were put down under the Pit No. 1 with best results being a 1.25 ft. sample yielding $9.80 of Au/ton (0.25 oz/ton Au; Gold at $35/oz).

The Kalibak South showing was stripped, trenched and diamond drilled. The quartz vein is very boudinaged and up to two feet in width with a possible strike length of up to 0.8 km. Enechelon mineralized shear zones in the adjacent quartz porphyry have been noted. Sulphide mineralization consists of pyrite, sphalerite and traces of gold.

Primrock Mining and Exploration Ltd. (1969) carried out a limited diamond drill program on the Hiawatha Gold Mines Ltd. showings, but subsequently allowed the claims to lapse.

Keltic Mining Corporation Ltd. (1974) did extensive work on an 81 unpatented mining claim group covering the Hiawatha showings. Their work included mapping and sampling of the underground workings.

Nickel Rim Mines Ltd. (1979) cut lines over the Hiawatha showing area and completed magnetic and mapping surveys. They also completed four diamond drill holes.

Sveinson Way Mineral Services Ltd. (1981) completed considerable drilling, sampling and soil sampling in the area of the Hiawatha showings.

Tanglewood Consolidated Resources Inc. (1983), the most recent holders of the Hiawatha property completed a comprehensive evaluation of the area including underground sampling of previous workings.

The Little Ermine Lake occurrence is a magnetite bearing metapyroxenite 2 km. east of the Orford Resources Ltd. property.

The J. Perkin showing is located 2 km. northwest of the Pamax Resources Ltd. property. It was first investigated by Neoscope Explorations Ltd., Toronto (1954). Airborne magnetometer and scintillometer surveys outlined the metapyroxenite and also a northeast trending feature parallel to the shoreline of

Kabinakagami Lake.

Sand River Gold Mining Company Ltd. (1953-57) completed airborne and ground magnetic surveys and drilled at least six drill holes on the showing. The drilling revealed the presence of a magnetite deposit reported (Siragusa 1977) to contain 10 million tons of magnetite bearing rock grading 66.5% Fe.

The Vasey-Stenabough occurrence is located 10 km southwest of the Orford Resources Ltd. property near the Hiawatha Fault. Stripping and trenching revealed the presence of gold, pyrite, chalcopyrite, galena and sphalerite in quartz veining within shear zones in a quartz porphyry dike. Sampling in 1937 returned gold values up to $15.60 of Au/ton (0.4 oz/ton Au, Au at $35/oz). In 1972 samples taken from the trenches gave values of 0.02 to 0.04 oz/ton Au.

The most recent government geological maps for the area are a 1" to 2 mile preliminary map by P.E. Giblin (1968) which covers approximately 40 townships in the area and a more detailed report on the area entitled "Geology of the Kabinakagami Lake Area" by G.M. Siragusa (1977). Accompanying map 2355 covers the subject property at a scale of 1" to 1 mile. An earlier map by J.E. Maynard (1929) at a scale of 1" to 2 miles also covered the area.

The Ontario Ministry of Northern Development and Mines has

completed, and released (June 23, 1986), the results of a helicopter borne, multi-frequency, multicoil, electromagnetic-magnetic survey completed over a large area that includes the subject property. The high quality magnetic and EM data covers the entire property and has been published at a scale of 1:20,000.

REGIONAL GEOLOGY

The Oba area is underlain by a group of mafic and felsic volcanic and tuffaceous rocks, and their clastic derivatives. All rocks known to occur in the region are of Archean age and have been typically metamorphosed to upper greenschist facies, and frequently to lower and middle amphibolite facies metamorphism, particularly in proximity to granitic bodies. Pegmatitic dikes are found crosscutting all volcanic and sedimentary rocks in the region. All rocks in the area have been intruded by late, northwest and northeast trending diabase dikes.

All bedrock exposures in the area are of Archean age, and while no age relationships are defined, speculation is that the amphibolitic mafic volcanic rocks are the oldest in the sequence. Interbedded with, and overlying the mafic volcanic units, which consist of a variety of pillowed, massive, tuffaceous, amphibolitic and porphyritic mafic units, are fine felsic lapilli tuffs and volcanic derived sediments. Some minor argillite, conglomerate and quartz sandstone were also mapped in the area. Minor peridotite, and pyroxenite are also found in the area.

These rocks were intruded, metamorphosed under predominantly amphibolite facies conditions, and partially assimilated by felsic plutonic rocks. The youngest rocks in the area are the generally northeast and northwest striking diabase dikes.

Siragusa (1977) describes the mafic to intermediate metavolcanics in the area to be almost invariably foliated grey-green to dark green, fine to coarse grained amphibolites except where greenschist retrograde metamorphic effects dominate. Original volcanic structures are rarely preserved due to the effects of the pervasive amphibolite facies metamorphism.

In the area of the Orford Resources Ltd. property, there is a northeast trending amphibolitic metavolcanic-metasedimentary belt which extends from the southwest corner of Lizar township up to the southeast corner of Derry township and into Hawkins township. The mafic volcanics contain interbeds and lens-shaped bodies of felsic metavolcanics and are interbedded with a trondhjemitic gneiss (Map 2355).

Shearing, subparallel to bedding appears to be the main structural entity in the region, this being developed primarily within the mafic volcanic, felsic tuffaceous and sedimentary rocks. This metamorphic foliation is also developed to some degree in the trondhjemitic intrusions. Silicification, sericitization and pyritization are locally present within the

sheared units, particularly along the contact between mafic and felsic units.

Siragusa (1977) indicates that "shearing accompanied by silicification and development of retrograde mineral assemblages has locally occurred in the metavolcanics and these sheared metavolcanics may have acted as host of sulphide and gold mineralization".

It is the author's opinion that it is these sheared, silicified, sericitized, pyritic zones - these Hemlo type-gold bearing zones that were the primary exploration targets on Orford Resources Ltd. property.

1988 EXPLORATION PROGRAM

The program consisted of prospecting and geological mapping using topography and claim lines as control, was completed between July and August of 1988.

The reconnaissance geology located outcrops of the following rock types: mafic metavolcanics, sediments, granite, granodiorite, gneisses and migmatites.

A total of 80 rock samples were collected from outcrops on the property and analyzed by geochemical methods for gold. The

background value for gold was determined to be <10 ppb Au. No anomalous gold values were obtained from these samples.

PROPERTY GEOLOGY

Three main rock terrains were located on the property; mafic volcanics and sediments, granites, granodiorites, gneisses and migmatites.

Mafic volcanic outcrops were located on Driller's Point and several islands in the vicinity of and including Agamik Island.

The mafic volcanics consist of a series of fine to medium grained flows with a well developed foliation due to amphibolite metamorphism. The rocks are dark green to dark grey in colour and weather dark grey to brown. Strikes are typically 80-110° and dips vary from 60-85° southeast. Narrow granitic dykes and quartz veins crosscut foliation containing 1-2% finely disseminated pyrite.

Outcrops of sediments were located in the vicinity of Whitefish Bay. These feldspar and quartz-rich metasandstones are light grey in colour and weather a light grey to white colour. The main mafic mineral present in the sediments is biotite. The main felsic minerals are quartz and feldspar. Strikes are typically 90-110° and dips vary from 60-70° to the north-west.

Granite and granodiorite outcrops were located on Burnt Island and several smaller islands in the northwest corner of the Orford Resources Ltd. property.

These massive, medium-coarse grained intrusive rocks are pink to white in colour. The essential minerals in these rocks include crystals of quartz, euhedral feldspar phenocrysts and lathes of hornblende.

Gneissic and migmatitic outcrops were located on the eastern shore of Driller's Point, on several islands between Driller's Point and Whitefish Bay and areas surrounding Whitefish Bay.

The gneissic outcrops contain alternating bands of mafic, hornblende rich material and granitic intrusive rock.

Migmatite outcrops located contain angular zenoliths of mafic volcanics embedded in younger granitic material.

Diabase dykes, the youngest rock type on the property, occur as northwest-northeast trending ridges. The dykes crosscut all other rock types. The diabase is typically green to black in colour, with a mottled texture weathering dark brown. The diabase rocks have a reddish brown iron-rich rind and are strongly magnetic.

Geological mapping on the property was conducted at a scale of 1:5000. The property was divided into three maps and these geology maps can be found in the back pocket of this report.

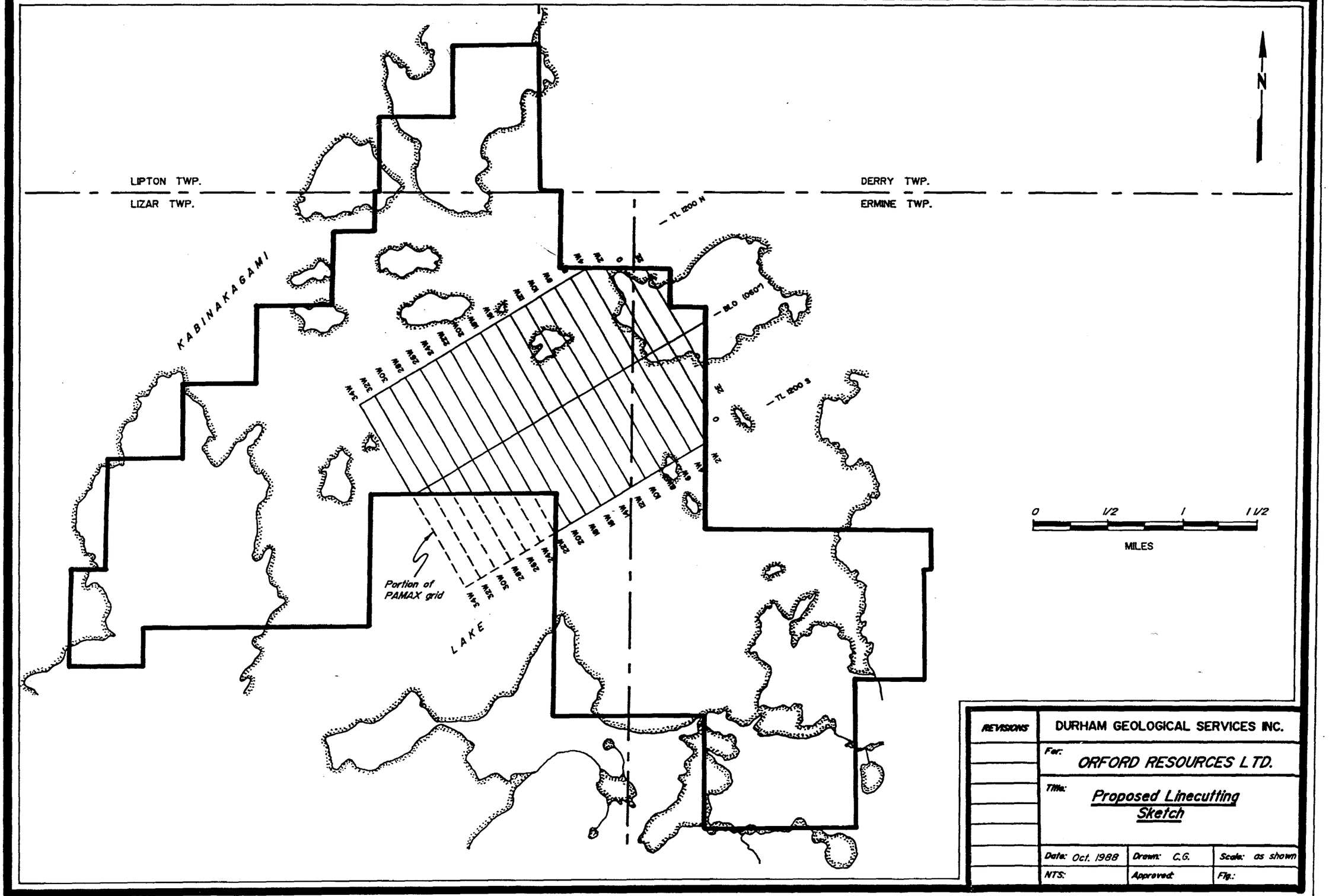
CONCLUSIONS AND RECOMMENDATIONS

This Phase I geology and prospecting program has revealed that a volcanic-sedimentary terrain exists in the central portion of the property, on Driller's Point and in the vicinity of WhiteFish Bay

Phase II should concentrate on the central portion of the property since this is the area where the proposed strike extension of the Hiawatha Gold Zone is thought to cross the property.

The program (Phase I) should consist of approximately 45 kilometres of linecutting and geophysics. A baseline should be cut starting at the number one post of claim P-972142. The baseline should have a length of 3.8 kilometres and be cut on a 060° azimuth.

Grid lines will have a maximum length of 2400 metres and be cut at 200 metre intervals with 25 metre stations for a total of 19 lines. Tie-lines should be cut at 12+00N and 12+00S to provide control of the grid.



REVISIONS	DURHAM GEOLOGICAL SERVICES INC.		
	For: ORFORD RESOURCES LTD.		
	Title: Proposed Linecutting Sketch		
	Date: Oct. 1988	Drawn: C.G.	Scale: as shown
	NTS:	Approved:	Fig.:

The 12+00N tie-line will have an approximate length of 2.7 kilometres and the 12+00S tie-line will have an approximate length of 3.2 kilometres.

Magnetometer and induced polarization surveys should be performed on all grid lines, the baseline and the two tie-lines.

The geophysical surveys will be useful in defining lithologic contacts, and for tracing iron formations and shear zones across the property. The induced polarization survey will be especially useful in locating disseminated sulphide zones. Most importantly the geophysical surveys will provide an indication of the presence of the strike extension of the Hiawatha Gold Zone on the property.

The Phase III program should consist of 3000 feet of diamond drilling, to test targets outlined by both the geophysical surveys and the geology and prospecting programs. The estimated cost of the programs are as follows:

ESTIMATED BUDGET

PHASE II- Ground Geophysics

Linecutting 45 km @ $250/km.	$11,250.00
Magnetometer Survey 45 km @ $100/km	4,500.00
Induced Polarization Survey 15 days @ $1500/day	22,500.00
TOTAL ESTIMATED PHASE II COST	$38,250.00

PHASE III- Diamond Drilling

3000 feet of BQ size Diamond Drilling	
@ $30/ft inclusive	$90,000.00
Core Logging, Core Splitting, Logging	
Facility, Drill Supervision	15,000.00
Assaying	2,000.00
Report Drafting, Printing, Consulting	8,000.00
TOTAL ESTIMATED PHASE III COST	$115,000.00
TOTAL ESTIMATED COSTS OF PHASE II AND III	$153,250.00

Completion of these two phases of exploration will serve as a preliminary evaluation of the potential of the property. If significant results are obtained, additional diamond drilling will be warranted on the property.

Respectfully Submitted,

Randy D Maass

Randy D. Maass H. BSc.

Consulting Geologist

SELECTED REFERENCES

DURHAM, R.B. (Mar. 31/1987) Report on the Orford Resources Ltd. Ermine, Lizar and Lipton townships property.

GIBLIN, P.E. (1968). notes on Mineral Occurrences, Hornepayne Sheet, Ontario Department of Mines, Misc. Paper 20.

GLENDHILL, T.D. (1972). Gold East of Langdon Station, Ontario. Department of Mines Annual Report, Vol. 36, Pt. 2

MAYNARD, J.E. (1929). Oba Area, Ontario Department of Mines, Annual Report, Vol. 38 Pt. 6

SIRAGUSA, G.M. (1977). Geology of the Kabinakagami Lake Area, Geoscience Report 159, Ministry of Natural Resources.

ONTARIO GEOLOGICAL SURVEY (1986). Airborne Electromagnetic and Total Intensity Magnetic Survey, Oba Kapuskasing Region, Derry Minnipuka Townships Area. District of Algoma: by Aerodat Limited for Ontario Geological Survey, Geophysical/Geochemical Series Map 80837 Scale 1:20 000. Survey and Compilation, February and March, 1986.

Ministry of Natural Resources Assessment Work Files: Timmins
File 2630, 2764, 2802, Falconbridge Ltd.
2804 Golden Range Resources Ltd.
2835 D. McKinnon- Aerodat
2223 Magi Gold Mines
1957 St. Joseph Exploration
1667 Rio Tinto Exploration
2212, 2211, 2210, 2228, 2229, Algoma Central and Hudson Bay Railway Company.

Ministry of Natural Resources Assessment Work Files: Toronto
File 633807 Regional Evaluations by Ontario Paper
63E27 Primrock Mining And Explorations Ltd.
2.5970 Tundra Gold Mines Ltd.
21509 2.1615 Keltic Mining Corp. Ltd.
2.3209 Nickel Rim Mines Ltd.
23947 Sveinson Way Mineral Services Ltd.
23947 Pacific Cypress
63922 Sand River Gold Mining Company Ltd.
2.5879 Tanglewood Petroleum Corp.- Aerodat
63543 Neoscope Explorations Ltd.

CERTIFICATION

I, Randy D. Maass, of 91 Elm St. S., Timmins, Ontario, certify as follows concerning my October 28 report on the ORFORD RESOURCES LTD. ERMINE, LIZAR AND LIPTON TOWNSHIP PROPERTY in northeastern Ontario.

1. I am a graduate of Brock University, having obtained a Bachelor of Science Degree in Geology in 1983.

2. I have been practicing my profession in Canada since 1980.

3. I have no direct or indirect interest in the properties, leases, or securities of ORFORD RESOURCES LTD.

4. I am an associate member of the Geological Association of Canada, and a member of the Canadian Institute of Mining and Metallurgy, and a member of the Porcupine Prospectors and Developers Association.

5. That this report is the product of my knowledge of the area, examination of previous work and reports, and information obtained during reconnaissance geological mapping and prospecting conducted on the property in July and August of 1988.

Dated at Timmins

this 28th day of October 1988.

Randy D Maass

Randy D. Maass, BSc.
Project Geologist

APPENDIX 1

MIN-EN LABORATORIES LTD.

Specialists in Mineral Environments

705 West 15th Street North Vancouver, B.C. Canada V7M 1T2

PHONE:(604)980-5814 OR (604)988-4524 TELEX:VIA USA 7601067 UC

Certificate of GEOCHEM

Company:DURHAM GEOLOGICAL SERVICES
Project:D-47
Attention:H. HUTTERI

File:72-885/P1
Date:SEPT 4/87
Type:ROCK GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	PB PPM	ZN PPM	AG PPM	AS PPM	AU-FIRE PPB
9526	22	330	0.2	2	6
9527					8
9528					3
9529					7
9530	12	26	0.5	1	6
9531					13
9532	8	36	1.6	2	9
9533					2
9534	24	44	1.1	2	5
9535					2
9536					4
9537					3
9538					2
9539	9	69	0.3	2	6
9540					3
9541	8	27	1.4	1	15
9542					5
9543					3
9544					7
9545					2
9546					3
9547					6
9548					4
9549					4
9550					3

Certified by

MIN-EN LABORATORIES LTD.

**** Certificate of GEOCHEM ****

Company: DURHAM GEOLOGICAL
Project: D-47
Attention: B. DURHAM

File: 82-1195/P1
Date: SEPT 4/88
Type: ROCK GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-FIRE PPB
10506	1 ✓
10507	1 ✓
10508	2 ✓
10509	1 ✓
10510	3 ✓
10511	2 ✓
10512	1 ✓
10513	1 ✓
10514	5 ✓
10515	2 ✓

Certified by R. Lachance

MIN-EN LABORATORIES LTD.

MIN-EN
LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

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TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Certificate of GEOCHEM

Company: DURHAM GEOLOGICAL
Project: D-47
Attention: B. BARNES

File: 82-1278/P1
Date: SEPT. 23/88
Type: ROCK GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-FIRE PPB
7551	7
7552	8
7553	1
7554	4
7555	7
7556	2
7557	1
7558	1
7559	2
7560	1
7561	8
7562	2
7563	5
7564	2
7565	3
7566	1
7567	3
7568	1
7569	4
7570	3
7571	4
7572	2
7573	1
7574	1
7575	1
7576	2
7577	2
7578	1
7579	1
7580	3

Certified by _____

MIN-EN LABORATORIES LTD.

MIN
• EN
LABORATORIES LTD.

SPECIALISTS IN MINERAL ENVIRONMENTS
CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS

VANCOUVER OFFICE:
705 WEST 15TH STREET
NORTH VANCOUVER, B.C. CANADA V7M 1T2
TELEPHONE (604) 980-5814 OR (604) 988-4524
TELEX: VIA U.S.A. 7601067 • FAX (604) 980-9621

TIMMINS OFFICE:
33 EAST IROQUOIS ROAD
P.O. BOX 867
TIMMINS, ONTARIO CANADA P4N 7G7
TELEPHONE: (705) 264-9996

Certificate of GEOCHEM

Company: DURHAM GEOLOGICAL
Project: D-47
Attention: B. BARNES

File: 82-1278/P2
Date: SEPT. 23/88
Type: ROCK GEOCHEM

We hereby certify the following results for samples submitted.

Sample Number	AU-FIRE PPB
9581	4
9582	1
9583	1
9584	1
9585	5
9586	3
9587	6
9588	2
9589	1
9590	2
9591	10
9592	7
9593	2
9594	1
9595	4

Certified by

MIN-EN LABORATORIES LTD.

Ministry of Northern Development and Mines

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

42C16NW9453 2.12279 ERMINE

900

W8905-051
2.12279 MAY 11

Type of Survey(s)	Township or Area
Geological Mapping	Ermine, Lizar, Lipton (WAWA)

Claim Holder(s)	Prospector's Licence No.
Orford Resources Ltd.	T-4993

Address: 1404-141 Adelaide Street West, Toronto, Ontario M5H 3M7

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Durham Geological Services Inc.	15 07 88 (Day Mo. Yr.) 30 08 88 (Day Mo. Yr.)	

Name and Address of Author (of Geo-Technical report): Randy D. Maass C/O Durham Geological Box 1330, Timmins, Ontario P4N 7J8

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	
	- Other	
	Geological	20
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	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	

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	

Calculation of Expenditure Days Credits

Total Expenditures: S ÷ 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.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
SSM					
	Please				
	see				
	attached				
	claim				
	list				

SAULT STE. MARIE MINING DIV. RECEIVED MAR 22 1989 A.M. P.M. 7 8 9 10 11 12 1 2 3 4 5 6

RECEIVED MAY 1 1989 MINING LANDS SECTION

RECORDED MAR 22 1989 Receipt No.

Total number of mining claims covered by this report of work: 200

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
14,000	Mar. 22/89	Blair Kirk
	Date Approved as Recorded	Branch Director
	See annexed statement!	

Date	Recorded Holder or Agent (Signature)
Jan. 23, 1989	Randy Maass

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.

WAWA

Name and Postal Address of Person Certifying: Randy D. Maass C/O Durham Geological Services Inc.

Box 1330, Timmins, Ont. P4N 7J8	Date Certified: Jan. 23, 1989	Certified by (Signature): Randy Maass

1362 (85/12)

DOCUMENT No.
W 8905.

ORFORD RESOURCES LIMITED

CLAIM NUMBER	WORK DAYS CREDIT
P 916529	20
P 916530	20
P 916531	20
P 934201	20
P 934202	20
P 934203	20
P 952951	20
P 952952	20
P 952953	20
P 952954	20
P 952973	20
P 952974	20
P 952975	20
P 952976	20
P 952977	20
P 952978	20
P 952979	20
P 952980	20
P 952999	20
P 953000	20
P 953001	20
P 953002	20
P 953003	20
P 953004	20
P 953005	20
P 953006	20
P 953025	20
P 953026	20
P 953027	20
P 953028	20
P 953041	20
P 953042	20
P 953043	20
P 953044	20
P 953045	20
P 953046	20
P 953047	20
P 953048	20
P 953049	20
P 953050	20
P 953051	20
P 953052	20
P 953053	20
P 953054	20
P 953055	20
P 953056	20
P 971955	20
P 971956	20
P 971957	20
P 971958	20

CLAIM NUMBER	WORK DAYS CREDIT
SSM P 971959	20
P 971960	20
P 971961	20
P 971962	20
P 971963	20
P 971964	20
P 971965	20
P 971966	20
P 971967	20
P 971968	20
P 971969	20
P 971970	20
P 971971	20
P 971972	20
P 971973	20
P 971974	20
P 971975	20
P 971976	20
P 971987	20
P 971988	20
P 971989	20
P 971990	20
P 971991	20
P 971992	20
P 971993	20
P 971994	20
P 971995	20
P 971996	20
P 971997	20
P 971998	20
P 971999	20
P 972000	20
P 972001	20
P 972002	20
P 972003	20
P 972004	20
P 972005	20
P 972006	20
P 972007	20
P 972008	20
P 972009	20
P 972010	20
P 972011	20
P 972012	20
P 972013	20
P 972014	20
P 972015	20
P 972016	20
P 972017	20
P 972018	20

CLAIM NUMBER	WORK DAYS CREDIT
SBM P 972019	20
P 972020	20
P 972021	20
P 972022	20
P 972023	20
P 972024	20
P 972025	20
P 972026	20
P 972027	20
P 972028	20
P 972029	20
P 972030	20
P 972031	20
P 972032	20
P 972033	20
P 972034	20
P 972035	20
P 972036	20
P 972037	20
P 972038	20
P 972039	20
P 972040	20
P 972041	20
P 972042	20
P 972043	20
P 972044	20
P 972045	20
P 972046	20
P 972047	20
P 972079	20
P 972080	20
P 972081	20
P 972082	20
P 972083	20
P 972084	20
P 972085	20
P 972086	20
P 972087	20
P 972088	20
P 972089	20
P 972090	20
P 972091	20
P 972092	20
P 972093	20
P 972094	20
P 972095	20
P 972096	20
P 972097	20
P 972098	20

CLAIM NUMBER	WORK DAYS CREDIT
SSM P 972099	20
P 972100	20
P 972101	20
P 972102	20
P 972108	20
P 972109	20
P 972110	20
P 972111	20
P 972112	20
P 972113	20
P 972114	20
P 972115	20
P 972116	20
P 972117	20
P 972118	20
P 972123	20
P 972124	20
P 972125	20
P 972126	20
P 972127	20
P 972128	20
P 972129	20
P 972130	20
P 972131	20
P 972132	20
P 972133	20
P 972134	20
P 972135	20
P 972136	20
P 972137	20
P 972138	20
P 972139	20
P 972140	20
P 972141	20
P 972142	20
P 972143	20
P 972144	20
P 972150	20
P 972151	20
P 972152	20
P 972153	20
P 972154	20
P 972155	20
P 972156	20
P 972157	20
P 972158	20
P 972159	20
P 972160	20
P 972161	20

CLAIM NUMBER	WORK DAYS CREDIT
SSM ~~P~~ 972162	20
~~P~~ 972163	20

200 CLAIMS

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Telephone:(416) 965-4888

July 5, 1989

Your file: W8905-51
Our file: 2.12279

Mining Recorder
Ministry of Northern Development and Mines
875 Queen Street East
Box 669
Sault Ste. Marie, Ontario
P6A 2B3

Dear Madam:

Re: Notice of Intent dated June 2, 1989 Geological Survey submitted on Mining Claims SSM 952974 et al, and P 916529 et al in Ermine, Lizar, and Lipton Townships.

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division
R.M.
RM:eb
Enclosure

cc: Mr. G.H. Ferguson
Mining and Lands Commissioner
Toronto, Ontario

Resident Geologist
Wawa, Ontario

Orford Resources Ltd.
1404-141 Adelaide Street W.
Toronto, Ontario
M5H 3M7

Randy D. Maass
c/o Durham Geological
Box 1330
Timmins, Ontario
P4N 7J8

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File 2.12279

Date June 2, 1989

Mining Recorder's Report of Work No. W8905-051

Recorded Holder

ORFORD RESOURCES LIMITED

Township or Area

ERMINE, LIZAR, LIPTON TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	P 916529
Electromagnetic ____ days	934201 to 203 incl.
Magnetometer ____ days	SSM 952974 to 977 incl.
Radiometric ____ days	952979
Induced polarization ____ days	952999 to 006 incl.
Other ____ days	952025 to 028 incl.
Section 77 (19) See "Mining Claims Assessed" column	953041 to 056 incl.
Geological 14 days	971955
Geochemical ____ days	971959 to 964 incl.
Man days ☐ Airborne ☐	971967 to 972 incl.
Special provision ☒ Ground ☒	971988
☐ Credits have been reduced because of partial coverage of claims.	971991 to 993 incl.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	971997
	971999 to 002 incl.
	972008
	972012-013
	972017
	972019 to 025 incl.
	972027 to 043 incl.
	972982 to 084 incl.
	972086 to 089 incl.
	972091
	972093
	972098-099
	972116-117
	972123-124
	972139-140
	972142 to 144 incl.
	972150-151
	972153 to 155 incl.

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☒ not sufficiently covered by the survey ☐ insufficient technical data filed

P 916530-531			
SSM 952951 to 954 incl.	971987	972018	
952973	971989-990	972026	
952978	971994-996	972044 to 047 incl.	
952980	971998	972079 to 081 incl.	
971956 to 958 incl.	972003 to 007 incl.	972085	
971965-966	972009 to 011 incl.	972090	
971973 to 976 incl	972014 to 016 incl.	972092	

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

Ministry of Northern Development and Mines

Ontario

Technical Assessment Work Credits

File 2.12279

Date June 2, 1989

Mining Recorder's Report of Work No. W8905-051

Recorded Holder

ORFORD RESOURCES LIMITED

Township or Area

ERMINE, LIZAR, LIPTON

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	
Man days ☐ Airborne ☐	
Special provision ☐ Ground ☐	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☒ not sufficiently covered by the survey ☐ insufficient technical data filed

972094 to 097 incl.
972100 to 102 incl.
972108 to 115 incl.
972118
972125 to 138 incl.
972141
972152
972156 to 163 incl.

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

LASCELLES TWP. G-

BEATON TWP. G-

DERRY TWP. G-

LIZAR TWP. G-

Lipton

Lipton Creek

Kabinakagami

Kabinakagami River

Lake

CT109 CT108 CT110 CT111 CT106 CT105 CT104 CT103 CT102 CT101 CT92 CT107 CT91 CT99 CT98 CT100 CT89 CT88 CT87 CT93 CT95 CT86 CT82 CT83 CT84 CT81

971956 972090 971965 972089 971967 971964 972098 972047 971958 971963 972087

200

REFERENCE

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES:
  - TOWNSHIPS, BASE LINES, ETC.
  - LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES:
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	❒
" , MINING RIGHTS ONLY	❑
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊕
CANCELLED	⊗
SAND & GRAVEL	⊕

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

LIPTON

M.N.R. ADMINISTRATIVE DISTRICT

HEARST

MINING DIVISION

SAULT STE. MARIE

LAND TITLES / REGISTRY DIVISION

ALGOMA

Ministry of Natural Resources — Land Management Branch

Ontario

200

Date DECEMBER, 1982

Number **G-2291**

Lipton Twp

Derry Twp.

Breckenridge Twp.

Ermine Twp.

Mosambik Twp.

Kabinakagami Lake

Boot Bay

Windy Pt.

Lipton Cr.

Breckenridge Cr.

Kabinakagami River

LEGEND

PATENTED LAND	O or (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.
PATENTED S.R.O.	

NOTES

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

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

DATE OF ISSUE

JUL 28 1989

SAULT STE. MARIE
MINING RECORDER'S OFFICE

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

LIZAR

M.N.R. ADMINISTRATIVE DISTRICT

HEARST

MINING DIVISION

LAND TITLES / REGISTRY DIVISION

ALGOMA

Ontario Ministry of Natural Resources | Ministry of Northern Development and Mines

210

Date	Number
JULY 1986	G-2328

42C16NW9453 2.12279 ERMINE

210

C.M.T.

REFERENCE

AREAS WITHDRAWN FROM DISPOSITION

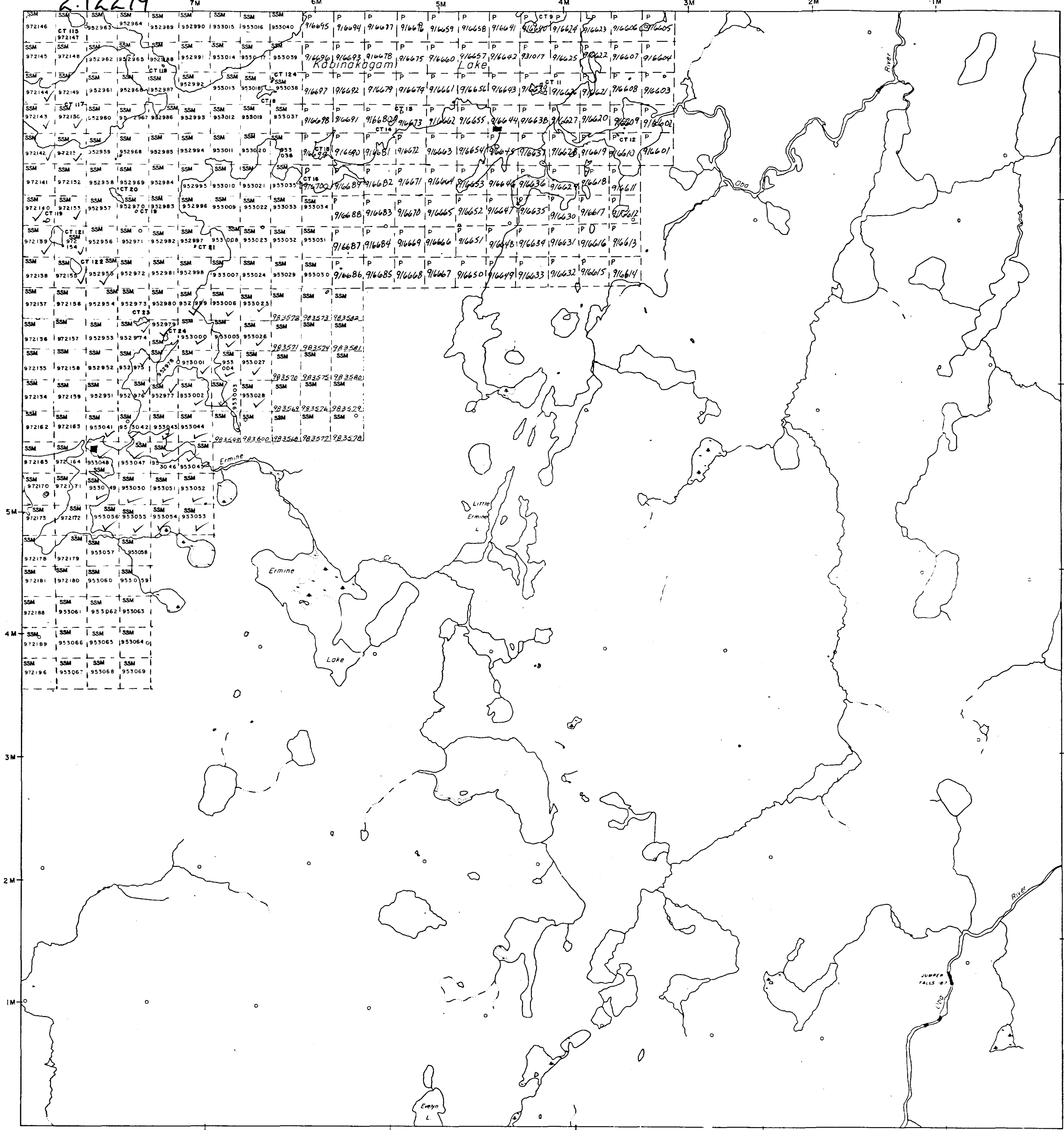
M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

Proposed Forestry work in Township 1988/89. Work schedule available upon request.

DERRY TWP. G-

2.12279



LIZAR TWP. G-

IRVING TWP. G-

CARNEY TWP. G-

REFERENCE

DATE OF ISSUE
MAR 29 1988
SAULT STE. MARIE
MINING RECORDER'S OFFICE

■ L.U.P.

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	⬒
" , MINING RIGHTS ONLY	⬓
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	®
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

ERMINE

M.N.R. ADMINISTRATIVE DISTRICT

HEARST

MINING DIVISION

SAULT STE. MARIE

LAND TITLES / REGISTRY DIVISION

ALGOMA

Ontario Ministry of Natural Resources — Land Management Branch

Received July 4/86 220

Date DECEMBER, 1982 Number G-2292

Checked by LD
Checked by P.L.

42C16NW9453 2.12279 ERMINE

220

LEGEND

- area of outcrop
- small outcrop
- claim post location
- claim post (assumed location)
- WP witness post
- shoreline
- escarpment
- swampy area
- Bedding (tops known) horizontal, inclined, vertical
- Schistosity, dip unknown, horizontal, inclined, vertical
- Gneissosity horizontal, inclined, vertical
- Foliation, dip unknown, horizontal, inclined, vertical
- Jointing horizontal, inclined, vertical
- Pillows, inclined, vertical
- Lava flow, top forward, top reversal, top reversal from grain gradation
- Glacial striae

9 DIABASE

7 FELSIC / INTERMEDIATE INTRUSIVES (unsubdivided)
- 7a granite
- 7b granodiorite
- 7c syenite
- 7e pegmatite

4 SEDIMENTS (unsubdivided)
- 4c sandstone, arkose-quartzite
- 4d greywacke

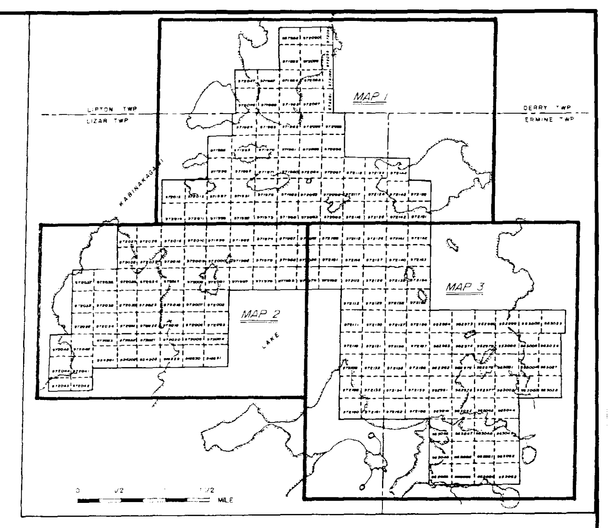
3 FELSIC VOLCANICS (unsubdivided)
- 3a rhyolite

1 MAFIC VOLCANICS (basalt)
- 1a magnesium-rich amphibole schist
- 1b coarse grained
- 1c medium grained
- 1d migmatite
- 1e amphibole schist

old	older
bal	balsam
bir	birch
ced	cedar
jp	jack pine
mm	moose maple
pop	poplar
sp	spruce
tam	tamarack

bio	biotite
bldrs	boulders
epid	epidote
hb	hornblende
mag	magnetite
mg	migmatite
py	pyrite
qtz	quartz
qv	quartz vein
sil	silicified
IF	iron formation

k	quartz porphyry
k	feldspar porphyry
t	quartz feldspar porphyry (QFP)
m	flows
n	tuffs
o	crystal tuff
p	lapilli tuff
q	block tuff
r	pillows
s	porphyritic
t	amygdaloidal
u	vesicular
v	schist
w	gneiss
z	dykes



OM 88-20

2.12279 (duplicate)

MAP 1 OF 3

DURHAM GEOLOGICAL SERVICES INC

CLIENT: ORFORD RESOURCES INC.		
PROPERTY: OBA REGION		
TITLE: GEOLOGY MAP		
Date: SEPTEMBER 1988	Scale: 1:5000	NTS:
Drawn: C. Goulet	Interp.:	Job No. D-47


MAP 1
MAP 2
MAP 3
MATCH POINT "A"
MATCH POINT "B"
MATCH POINT "D"
972027
972026
972015
972010
971999
971989
971974
971957
972028
972025
972016
972009
972000
971988
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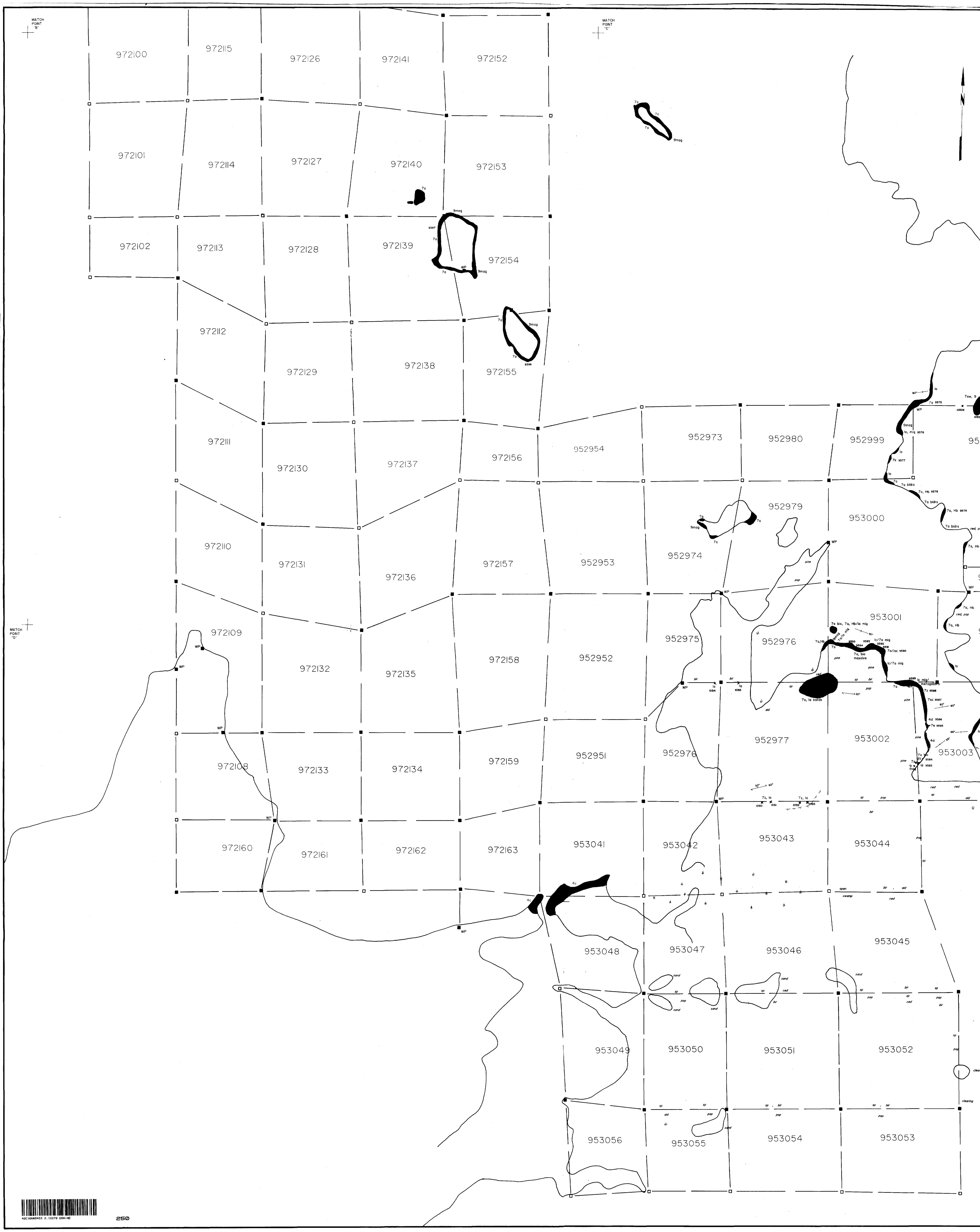
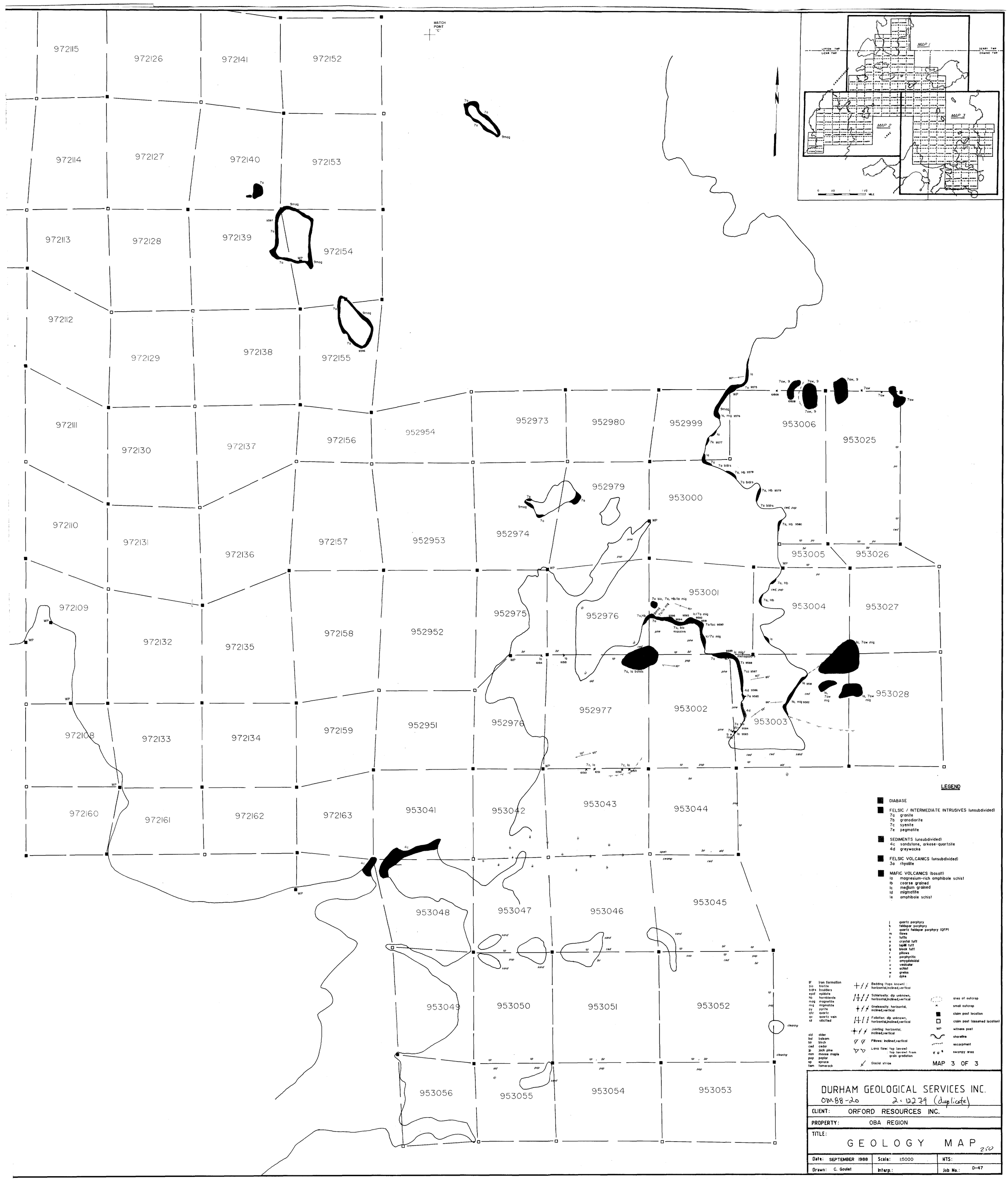
972003
972040
972033
972032
972021
972020
972005
972004
972045
934201
934202
934203
916529
916530
916531
972044
972041
972043
972042
LEGEND
9 DIABASE
7 FELSIC / INTERMEDIATE INTRUSIVES (unsubdivided)
7a granite
7b granodiorite
7c syenite
7e pegmatite
4 SEDIMENTS (unsubdivided)
4c sandstone, arkose-quartzite
4d greywacke
3 FELSIC VOLCANICS (unsubdivided)
3a rhyolite
1 MAFIC VOLCANICS (basalt)
1a magnesium-rich amphibole schist
1b coarse grained
1c medium grained
1d migmatite
1e amphibole schist
IF iron formation
bio biotite
bldrs boulders
epid epidote
hb hornblende
mag magnetite
mig migmatite
py pyrite
qtz quartz
qv quartz vein
sil silicified
ald alder
bal balsam
blr birch
ced cedar
jp jack pine
mm moose maple
pop poplar
sp spruce
tam tamarack
j quartz porphyry
k feldspar porphyry
l quartz feldspar porphyry (QFP)
m flows
n tuffs
o crystal tuff
p lapilli tuff
q block tuff
r pillows
s porphyritic
t amygdaloidal
u vesicular
v schist
w gneiss
z dyke
area of outcrop
small outcrop
claim post location
claim post (assumed location)
WP witness post
shoreline
escarpment
swampy area
Glacial striae
Bedding (tops known) horizontal,inclined,vertical
Schistosity: dip unknown, horizontal,inclined,vertical
Gneissosity: horizontal, inclined,vertical
Foliation: dip unknown, horizontal,inclined,vertical
Jointing: horizontal, inclined,vertical
Pillows: inclined,vertical
Lava flow: top (arrow) : top (arrow) from grain gradation
MAP 2 OF 3
DURHAM GEOLOGICAL SERVICES INC.
OM88-20 2.12279 (duplicate)
CLIENT: ORFORD RESOURCES INC.
PROPERTY: OBA REGION
TITLE: GEOLOGY MAP
240
Date: SEPTEMBER 1988
Scale: 1:5000
NTS:
Drawn: C. Goulet
Interp.:
Job No.: D-47
42C16NW9453 2.12279 ERMINE
240



42C16NW9453 2.12279 ERMINE

250



LEGEND

- DIABASE
- FELSIC / INTERMEDIATE INTRUSIVES (unsubdivided)
  - 7a granite
  - 7b granodiorite
  - 7c syenite
  - 7e pegmatite
- SEDIMENTS (unsubdivided)
  - 4c sandstone, arkose-quartzite
  - 4d greywacke
- FELSIC VOLCANICS (unsubdivided)
  - 3a rhyolite
- MAFIC VOLCANICS (basalt)
  - la magnesium-rich amphibole schist
  - lb coarse grained
  - lc medium grained
  - ld migmatite
  - le amphibole schist

- j quartz porphyry
- k feldspar porphyry
- l quartz feldspar porphyry (QFP)
- m flows
- n tuffs
- o crystal tuff
- p lapilli tuff
- q block tuff
- r pillows
- s porphyritic
- t amygdaloidal
- u vesicular
- v schist
- w gneiss
- z dyke

IF iron formation
bio biotite
bldrs boulders
epid epidote
hb hornblende
mag magnetite
mig migmatite
py pyrite
qtz quartz
qv quartz vein
sil silicified

old older
bal balsam
bir birch
ced cedar
jp jack pine
mm moose maple
pop poplar
sp spruce
tam tamarack

Bedding (tops known): horizontal, inclined, vertical
Schistosity: dip unknown, horizontal, inclined, vertical
Gneissosity: horizontal, inclined, vertical
Foliation: dip unknown, horizontal, inclined, vertical
Jointing: horizontal, inclined, vertical
Pillows: inclined, vertical
Lava flow: top (arrow) top (arrow) from grain gradation
Glacial striae

area of outcrop
small outcrop
claim post location
claim post (assumed location)
WP witness post
shoreline
escarpment
swampy area

MAP 3 OF 3

DURHAM GEOLOGICAL SERVICES INC.
OM88-20 2.12279 (duplicate)

CLIENT: ORFORD RESOURCES INC.

PROPERTY: OBA REGION

TITLE: GEOLOGY MAP 250

Date: SEPTEMBER 1988	Scale: 1:5000	NTS:
Drawn: C. Goulet	Interp.:	Job No.: D-47