



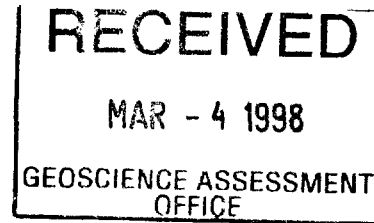
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N.T.S. 31C/11

**REPORT OF TRENCHING  
BLACK RIVER PROPERTY  
GRIMSTHORPE TOWNSHIP, ONTARIO**



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## I. INTRODUCTION

### SCOPE

This report details the 1996 trenching and rock sampling program on the Black River property, Grimsthorpe Township, Ontario. Maps and trench plans concerning this work are included with this report.

### LOCATION AND ACCESS

The Black River property is located in Grimsthorpe Township, Ontario (Figure 1). The property is approximately 30 km NE of the town of Madoc. Access can be made by following Highway 62 north from Madoc to the village of Gilmour. 4 km east of Gilmour is the turn for the Skootamatta Lake Access Road. Approximately 10 km SE on this road, the property begins at the turn of the Lingham Lake Access Road.

The property is covered by the N.T.S. sheet 31C/11.

### PROPERTY AND STATUS

The property consists of 13 contiguous unpatented mining claims (Figure 2). The claim group totals 24 units of 20 hectare size. The claim numbers are: S01150984, S01150985, S01150986, S01076804, S01076805, S01076806, S01076807, S01076808, S01194942, S01194943, S01194973, S01194974, S01194975.

All claims are held by Mr. R.J. Dillman of RR# Mount Brydges, Ontario.

### LOGISTICS, DATES, PERSONAL

The trenching program was conducted between October 25, 1996 and January 6, 1997. The program was supervised by R. Dillman, of Mt. Brydges. The program was assisted by: T. Zurawel of Mississauga, Ontario and S. Dawson of Mississauga, Ontario.

Results of the trenching program have been plotted on plan appended to this report. The plans are at the scale of 1:50 and 1:100.

Also included with this report are maps at the scale of 1:5000 showing the location of each trench with respect to claims, post locations and grid position.

### TOPOGRAPHY AND LAND-USE

Airphotos of the property reveal many small ponds and streams, the largest of which is the Black River. These features are confined to topographical lineaments. The strongest, most

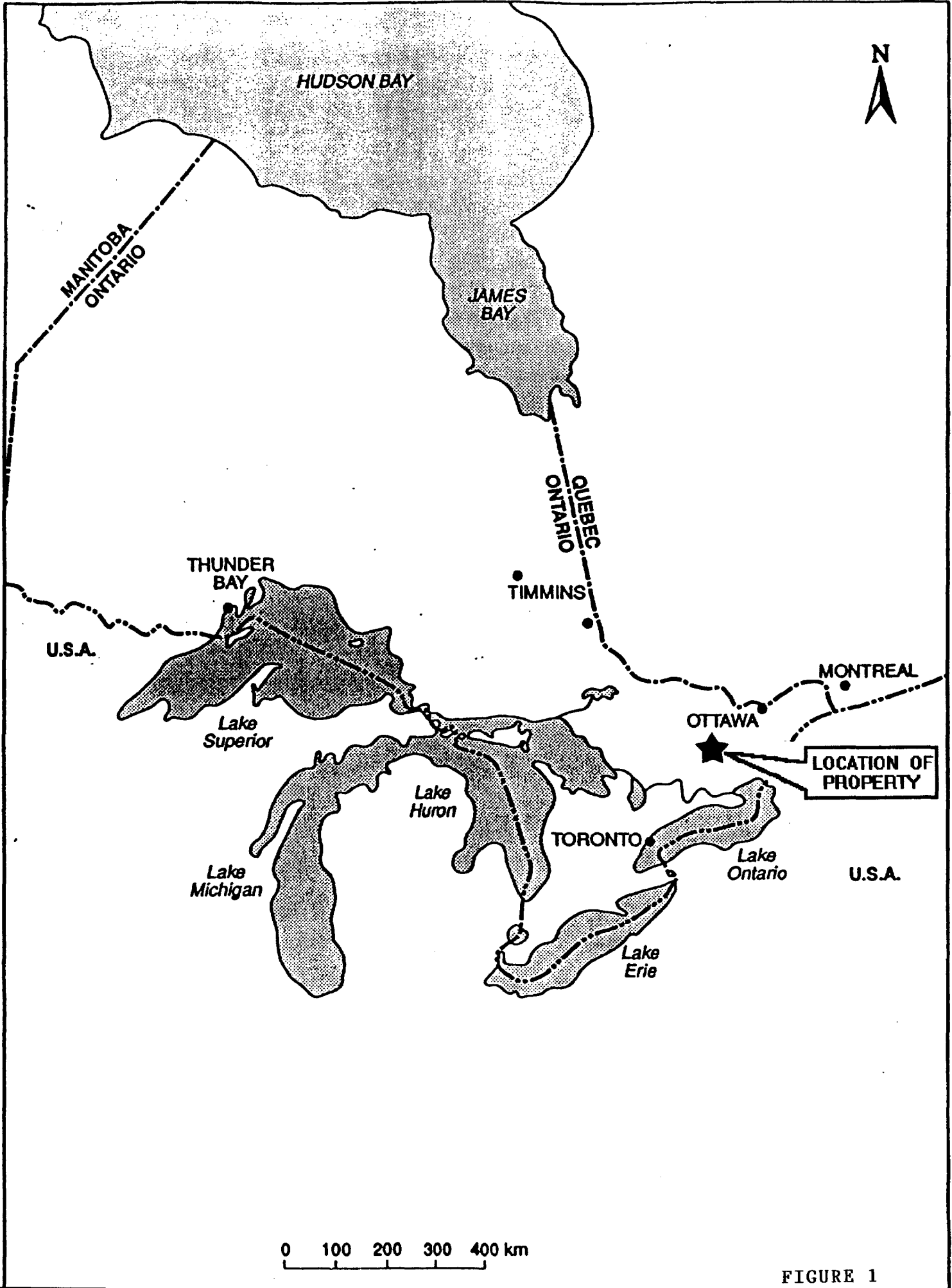
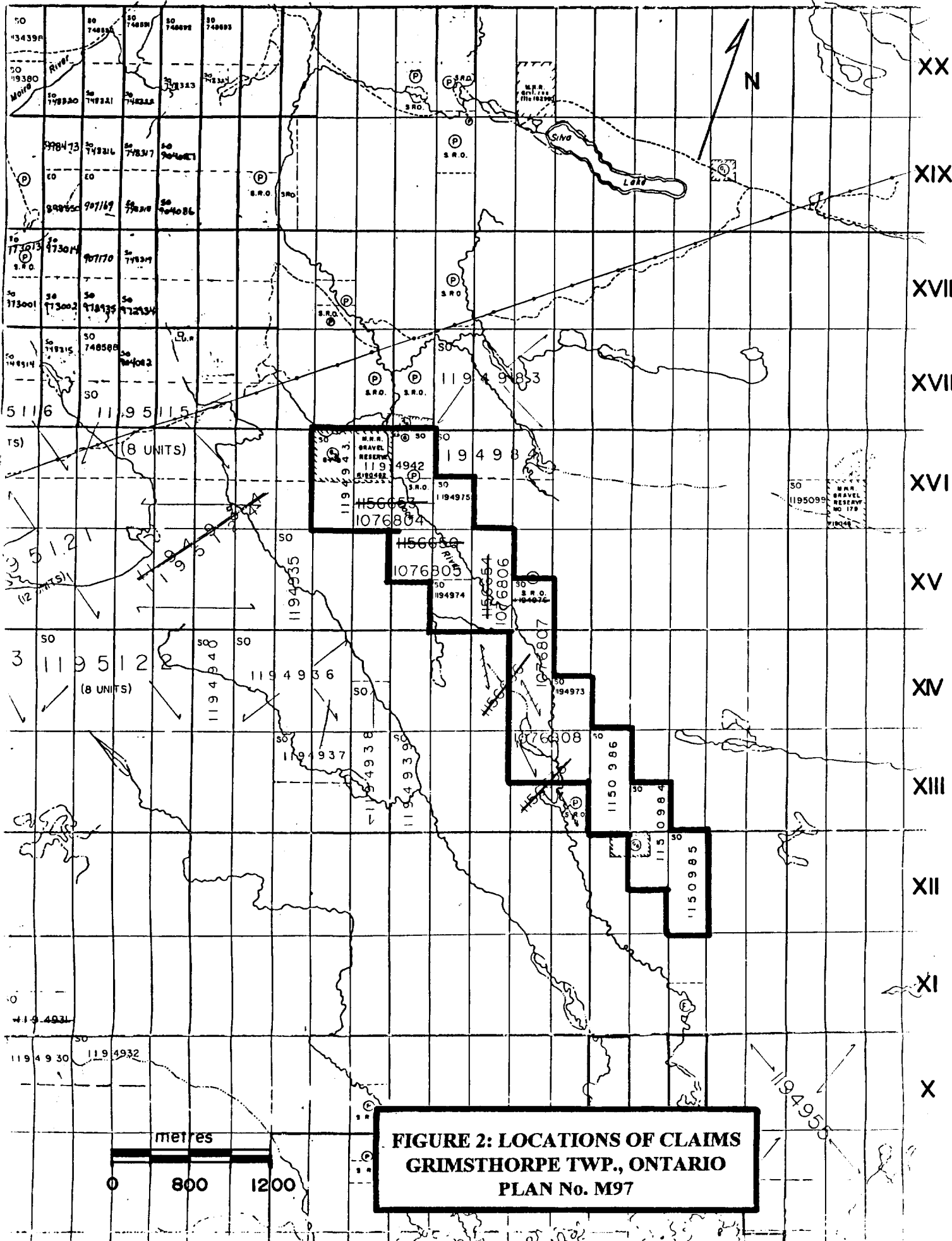


FIGURE 1

30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7



**FIGURE 2: LOCATIONS OF CLAIMS  
GRIMSTHORPE TWP., ONTARIO  
PLAN No. M97**

continual set of lineaments are orientated on a N-NW bearing. In places, these lineaments have been shifted and offset by a less-dominant set of lineaments orientated in a NE direction.

The highest elevations on the property can be found east of the Black River. This area is dominated by large outcrops of mafic metavolcanic rocks and shallow overburden consisting of forest loams and till.

West of the river, the land is much flatter and outcrop exposure decreases to approximately 10%. Outcrops are located in the highest elevations and along the sides of depressions. Large areas of this region are covered by swamps, tills and fluvial-deposited sands and gravels.

Most of the overburden on the property consists of a mixture of forest loams, till and bog. Tills dominating west of the river consist of different-sized angular material made up of locally sourced mafic metavolcanic rock and regional sourced, rounded granite boulders. Striations measured on outcrop surfaces suggest that glacial advancement was from N4 E. Fluvial sourced material consists of well-sorted sands and gravels. A large sand plain can be found in south half of claim S01194973, lot 16, concession XIV, east of the river.

Vegetation on the property is variable. Hardwoods such as birch, maple and oak grow in the highest elevations. White pine, spruce and balsam grow in flatter areas. Jack-pine, balsam and alders grow in the lowest elevations.

There has been several different types of land-use in the Black River area of Grimsthorpe Township. Limited logging activities have occurred in areas west of the Lingham Lake Road. In the northern area of the property there are pits where sand and gravel has been extracted. Several cabins are located over the property which are primarily used for recreational hunting.

#### PREVIOUS EXPLORATION ACTIVITIES

The Black River area of Grimsthorpe Township has no history of mineral exploration until 1991 when funding was acquired through the OPAP system and claims were staked to cover several gold discoveries made by R. Dillman. In 1992 and 1993, Dillman cut a baseline for geology mapping, magnetometer and V.L.F. electromagnetic surveys, soil sampling and trenching.

Elsewhere in the township, mineral exploration (mainly for gold) had been concentrated in the western and northwestern regions of the township. At various times between 1909 to 1935, gold was produced at the Gilmour Mine in lot 30, concession 19. This is the only record of gold production in Grimsthorpe Township. Talc was discovered in 1910 in lots 8, 9 and 10, con. 5.

As recently as 1994, staking has occurred of ground adjoining to the west of the Black River claim block.

## GEOLOGICAL SETTING

The geology of the Black River Property is summarized in Figure 3. The property is underlain by Middle to Late Proterozoic mafic metavolcanic rocks and metasedimentary schists both of which have been intruded by dikes and sills of diabase and quartz-feldspar porphyry. All rocks belong to the Grenville Structural Province. The general trend of geology is NW-SE and the units dip moderately southwest to vertical.

Metasedimentary schists consist of clastic to fine grained pelagic sediments. Rock types may include: conglomerate, greywacke, argillite and graphitic schists. The beds are steeply to vertically tilted, usually rusty and mineralized with varying quantities of pyrite, pyrrhotite, and magnetite. The rusty schists tend to occur along the contacts with flowed mafic metavolcanic rocks.

Mafic metavolcanic rocks consisting of basalt and agglomerate flows are most abundant on the east side of the property. A coarse grained gabbroic sill occurs in metasediments along the river in the south half of lot 20, concession XVI, SO1076804.

Early and late-staged mafic and felsic dikes cut and parallel units. The dikes appear to favour northwest orientations and east-west orientations.

It is believed that the major northwest trending lineaments mark structural zones. The most predominate break is thought to occur along the trace of the Black River and into the south claims of the property. A second set of structures cuts east-west across the property and is marked by linear swamps and depressions. Well-defined jointing and minor offsetting of units along the an east-west plain are features frequently observed in the rocks on the property and good evidence of the existence of these structures.

Metamorphic grade of rocks on the property ranges between greenschist and lower amphibolite facies. Increase of metamorphism occurs from east to west across the property.

## GOLD MINERALIZATION

There have been 8 discoveries of gold on the property (Figure 3). 5 of the occurrences are in bedrock, 3 are boulder occurrences. The gold is associated with shearing, quartz veining, arsenopyrite and pyrite mineralization in rusty schists which contact along the west margin the massive mafic metavolcanic flows occupying the east side of the property. Stratigraphically, the discoveries are at same horizon and have

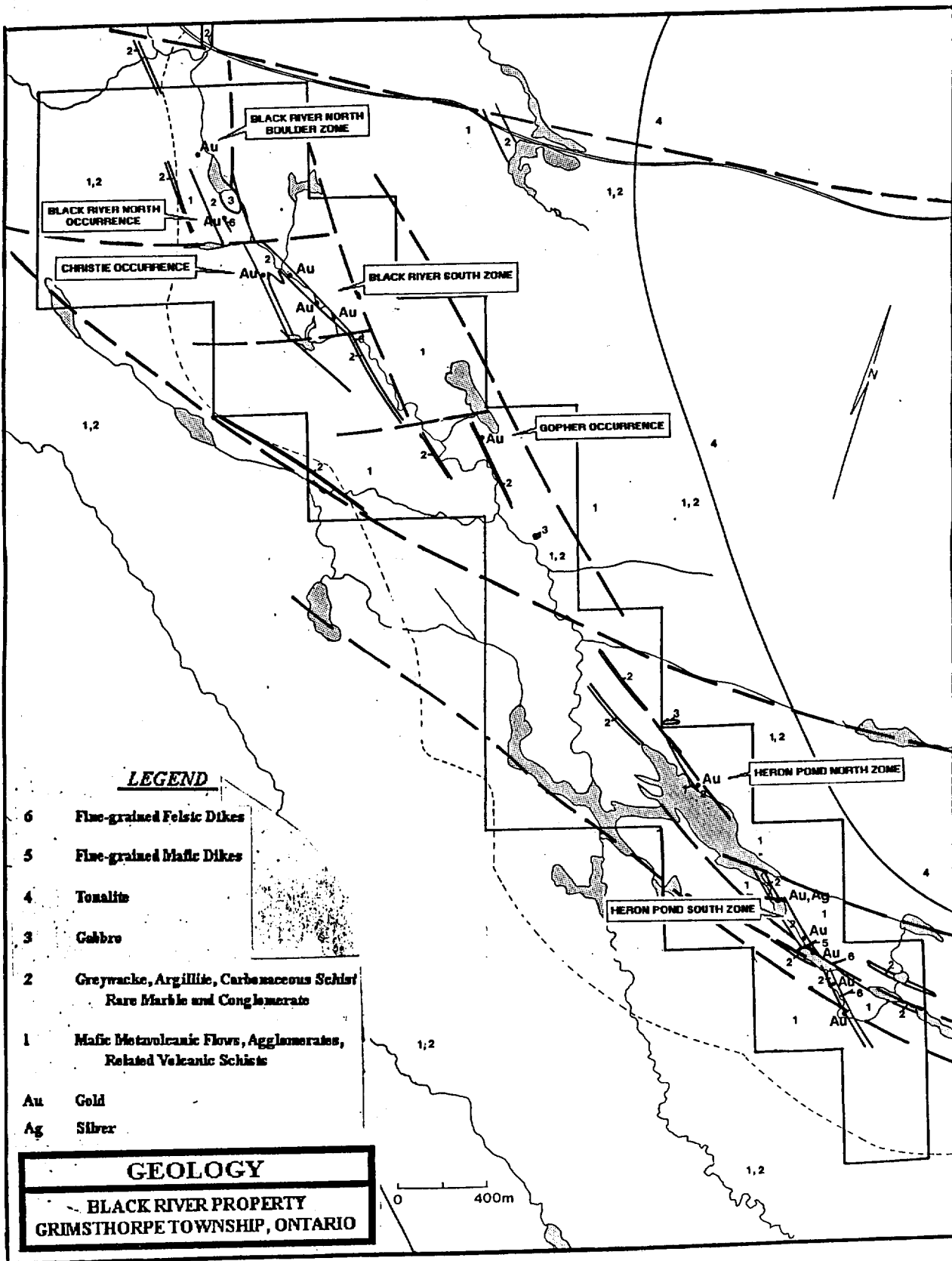


FIGURE 3



occurred as a result of shearing and veining most likely associated with a phase of development of the northwest trending structures.

## II. TRENCHING

The following is a description of the rock samples collected during the trenching program and the location of each trench and sample site. Trench plans, at a scale of 1:50 or 1:100 are included with this report.

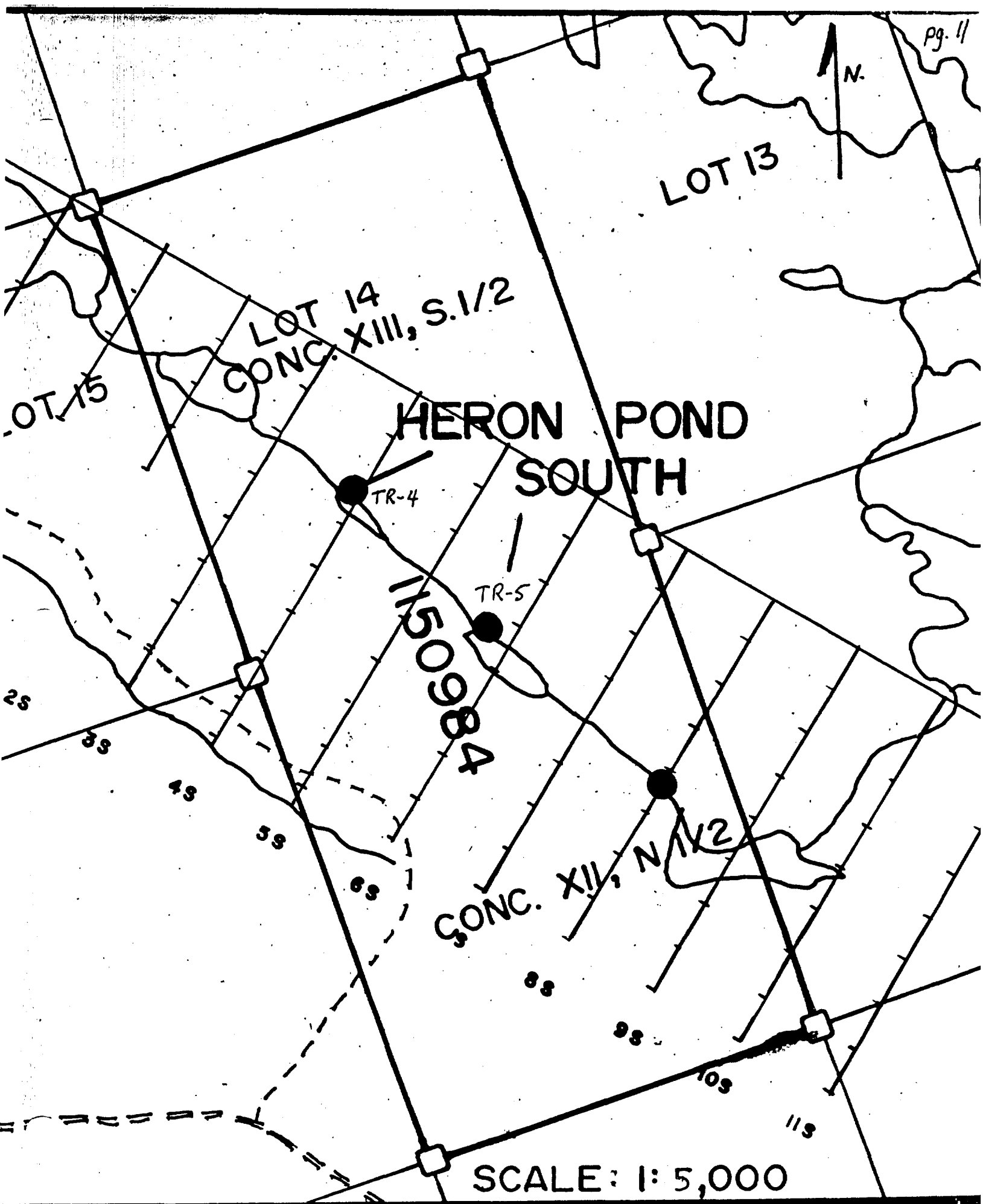
Rock samples collected were sent to Activation Laboratories Ltd. in Ancaster, Ontario. At the lab, the rocks were analyzed for gold by standard fire assay methods followed by induced atomic absorption (INAA). Assay results and certificates accompany this report.

<b>SAMPLE NUMBER</b>	<b>LOT, CONC. CLAIM No. FIGURE No.</b>	<b>TRENCH No. NAME OF SHOWING GRID COORD.</b>	<b>GOLD ASSAY RESULT (ppb)/metres</b>	<b>DESCRIPTION</b>
4751	L. 14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+58s, 1+71w	171 ppb/0.5 m	greywacke with traces of pyrite.
4752	L.14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+58s, 1+71w	1450 ppb/0.5 m	siliceous-chloritic metasediment with 1-5% py + As.
4753	L.14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+58s, 1+70w	2440 ppb/0.3 m	sugary quartz vein well-mineralized with arsenopyrite.
4754	L.14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+60s, 1+70w	1930 ppb/0.3 m	sugary quartz vein well-mineralized with arsenopyrite. 2.0 m from 4754
4755	L.14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+60s, 1+69w	59 ppb/1.0 m	greywacke, footwall.
4756	L.14, C. XII, N.1/2 SO1150984 FIGURE 4	TR-5 HERON POND SOUTH 5+59s, 1+67w	13 ppb/2.0 m	greywacke

SAMPLE NUMBER	LOT, CONC. CLAIM No. FIGURE No.	TRENCH No. NAME OF SHOWING GRID COORD.	GOLD ASSAY RESULT (ppb)/metres	DESCRIPTION
4757	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+01s, 1+19w	3040 ppb/0.5 m	siliceous-chlorite alteration on hangingwall, 5-15% As +py.
4758	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+01s, 1+19w	2010 ppb/0.25 m	sugary quartz vein, well mineralized with As.
4759	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+01s, 1+19w	3310 ppb/0.25 m	sugary quartz vein, well mineralized with As. 3.0 m from 4758.
4760	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+01s, 1+19w	402 ppb/0.5 m	silicification and chloritic metasediment, trace As, footwall.
4761	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 3+91s, 1+18w	103 ppb/0.5 m	silicification and chloritic metasediment, trace As, footwall.
4762	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 3+91s, 1+18w	204 ppb/0.1 m	sugary quartz, footwall to chloritic fault gauge.
4763	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 3+91s, 1+18w	1370 ppb/0.2 m	chloritic fault gauge.
4764	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 3+91s, 1+18w	4090 ppb/0.2 m	sugary quartz, 5% As + py, traces of galena and sphalerite.
4765	L.14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 3+91s, 1+18w	65 ppb/0.5 m	silicified and chloritized metasediment, hangingwall to shear.
4766	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+07N, 1+60E	4 ppb/0.2 m	white quartz vein.
4767	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+07N, 1+60E	102 ppb/0.15 m	white quartz vein.
4768	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+07N, 1+60E	184 ppb/0.1 m	chloritic contact of vein and gabbro.

SAMPLE NUMBER	LOT, CONC. CLAIM No. FIGURE No.	TRENCH No. NAME OF SHOWING GRID COORD.	GOLD ASSAY RESULT (ppb)/metres	DESCRIPTION
4769	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+17N, 1+62E	118 ppb/1.0 m	greywacke.
4770	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+20N, 1+61E	835 ppb/0.2 m	greywacke-gabbro contact, sheared, trace py + As.
4771	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+16N, 1+57E	1260 ppb/0.25 m	chlorite + Fe carbonate gauge?
4772	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+17N, 1+58E	41 ppb/0.1 m	quartz vein with chlorite blebs.
4773	L. 18, C. XV, S.1/2 SO1076806 FIGURE 5	TR-3 GOPHER ZONE 22+18N, 1+62E	2440 ppb	boulder of silicified metasediment, 5% As, not in trench.
4774	L. 19, C. XV, N.1/2 SO1076805 FIGURE 7	TR-6 BLACK RIVER SOUTH 30+35N, 0+70E	542 ppb/0.2 m	silicified metasediment footwall to felsic dike, trace py +As.
4775	L. 19, C. XV, N.1/2 SO1076805 FIGURE 7	TR-6 BLACK RIVER SOUTH 30+35N, 0+70E	21 ppb/0.2 m	silicified metasediment hangingwall to felsic dike, trace py +As.
4776	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+52N, 0+09W	26 ppb/0.25 m	silicified metasediment, trace py +As.
4777	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+52N, 0+08W	61 ppb/1.0 m	greywacke, silicified-chloritized.
4778	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+52, 0+07W	818 ppb/1.0 m	sheared-siliceous-veined metasediment good As.
4779	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+52N, 0+06W	510 ppb/1.0 m	sheared-siliceous-veined metasediment good As.
4780	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+49N, 0+05W	295 ppb/1.0 m	siliceous metasediment.
4781	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+49N, 0+06W	1930 ppb/0.5 m	quartz and fragmented wallrock, good As.
4782	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+49N, 0+07W	761 ppb/2.0 m	sheared-siliceous-veined metasediment good As.

SAMPLE NUMBER	LOT, CONC. CLAIM No. FIGURE No.	TRENCH No. NAME OF SHOWING GRID COORD.	GOLD ASSAY RESULT (ppb)/metres	DESCRIPTION
4783	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+49N, 0+07W	3140 ppb/0.5 m	sheared-siliceous-veined metasediment good As.
4784	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-2 CHRISTIE ZONE 34+49N, 0+07W	153 ppb/1.0 m	siliceous metasediment.
4785	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-1 BLACK RIVER NORTH 36+90N, 0+50E	2060 ppb/0.3 m	sugary quartz vein well-mineralized by As, fragments of metasediment in vein
4786	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-1 BLACK RIVER NORTH 36+90N, 0+50E	2800 ppb/0.3 m	sugary quartz vein well-mineralized by As, fragments of metasediment in vein
4787	L. 20, C. XVI, S.1/2 SO1076804 FIGURE 6	TR-1 BLACK RIVER NORTH 36+90N, 0+50E	2700 ppb/0.3 m	sugary quartz vein well-mineralized by As, fragments of metasediment in vein
4788	L. 14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+04S, 1+20W	5 ppb	greywacke.
4789	L. 14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+04S, 1+21W	54 ppb/1.0 m	chloritized metasediment?
4790	L. 14, C. XIII, S.1/2 SO1150984 FIGURE 4	TR-4 HERON POND SOUTH 4+04S, 1+22W	17	greywacke.



GRIMSTHORPE TWP. ONTARIO

FIGURE 4

LOT 17

FIGURE 5  
GRIMSTHORPE TWP.

LOT 18  
CONC. XV N.1/2

GOPHER  
ZONE

LOT 19

BLACK RIVER

TR-3

LOT 18  
CONC. XV S.1/2

27N

26N

25N

24N

LOT 19

23N

22N

21N

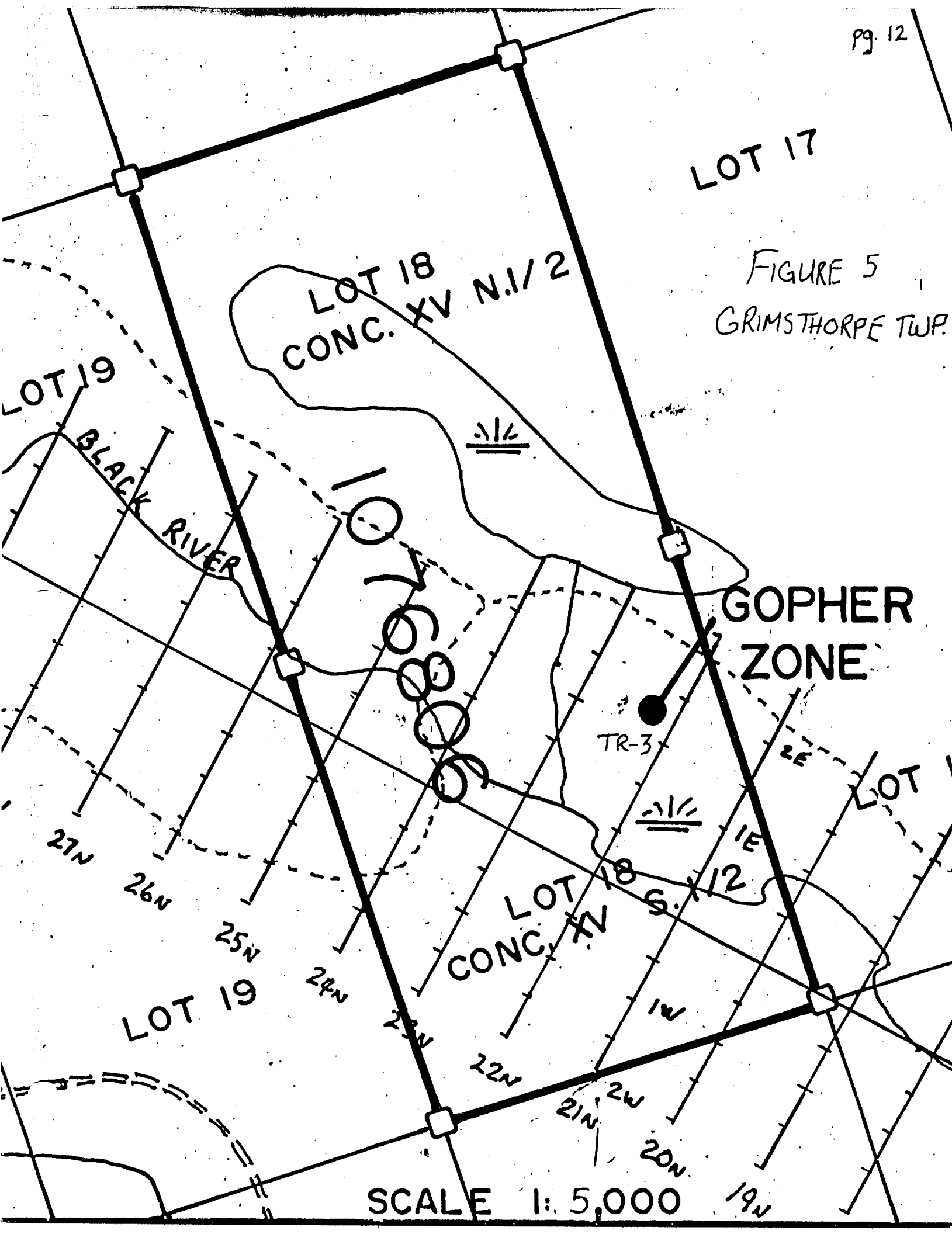
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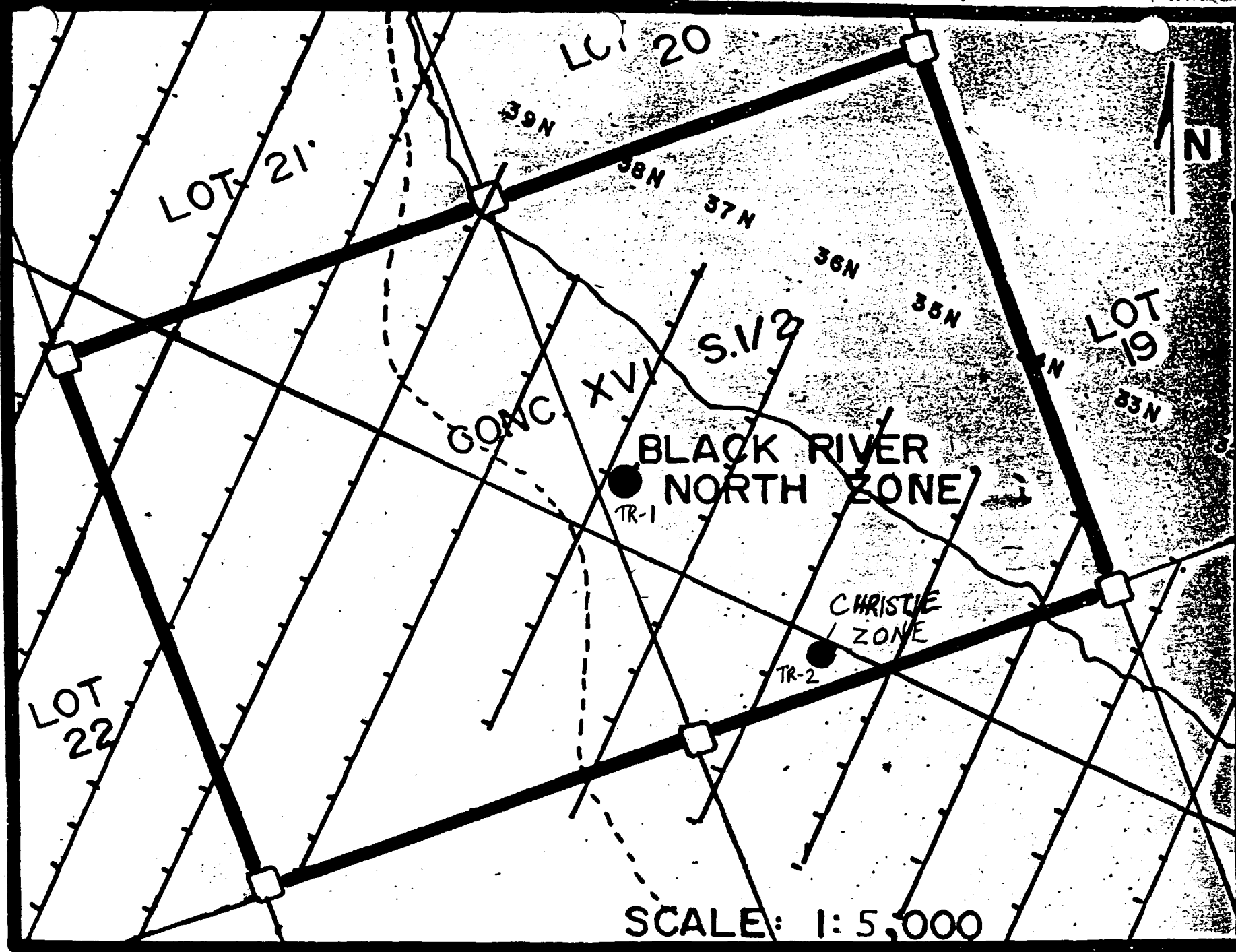
19N

1W

2W

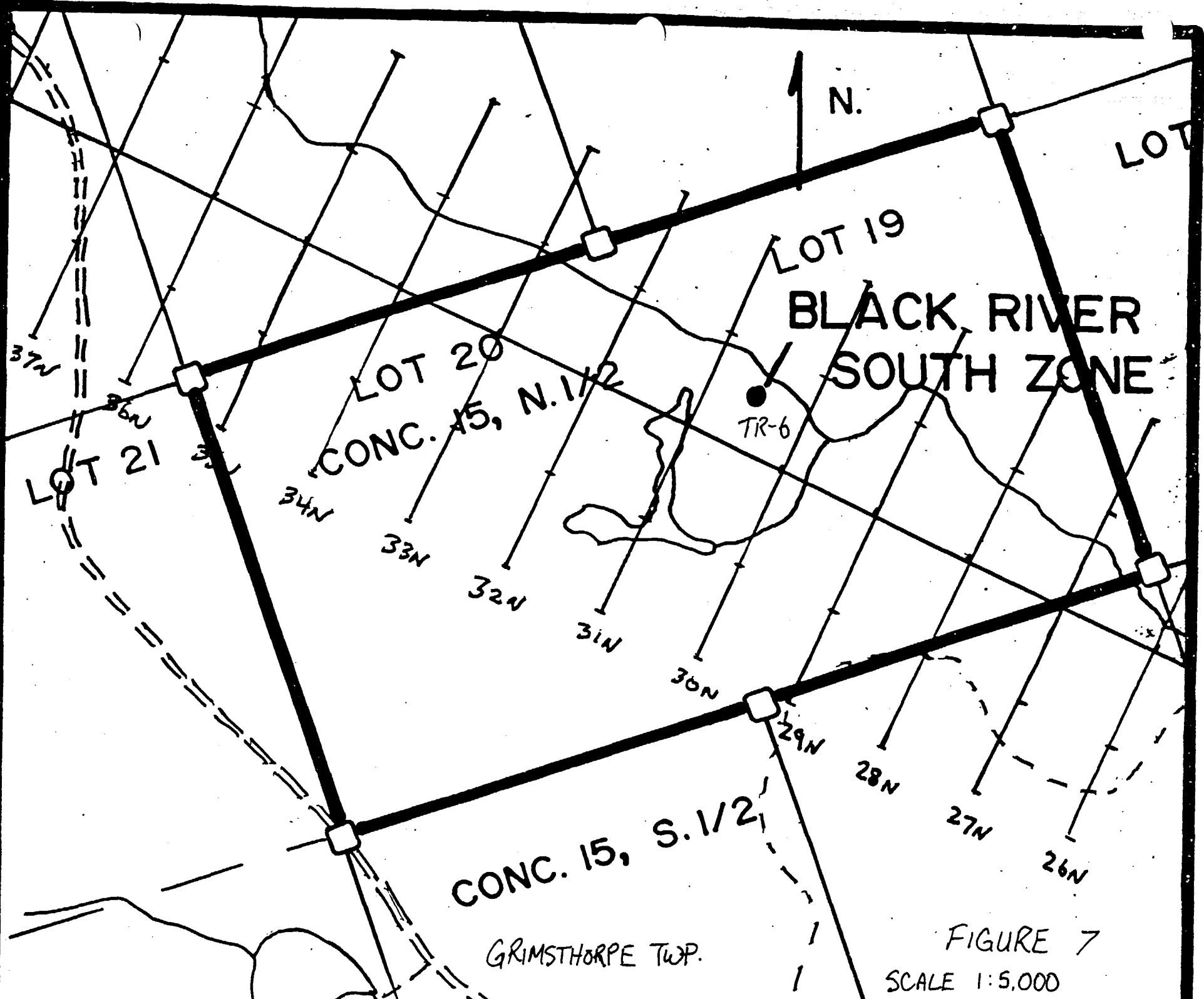
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GRIMSTHORPE TWP.

FIGURE 6



**BLACK RIVER  
SOUTH ZONE**

LOT 19

LOT 20

LOT 21

CONC. 15, N. 1/2

CONC. 15, S. 1/2

TR-6

N.

GRIMSTHORPE TWP.

FIGURE 7  
SCALE 1:5,000



### III. DESCRIPTION OF GOLD OCCURRENCES

#### HERON POND SOUTH: TR-4, TR-5

A series of quartz veins and alteration occur within steeply west dipping metasedimentary rocks at the contact with massive mafic metavolcanic flows. The zone is marked by a northwest trending swamp-filled lineament. Evidence of the mineralization can be followed by float and outcrop exposure for a distance of over 1200 m extending from lot 14, concessions XII and XIII into lot 15, concession XIII. The strike of the zone is open at length.

3 areas have been trenched along strike. At least 2 parallel veins have been exposed. The veins range in width from 10 to 30 cm wide and are well-mineralized by arsenopyrite and pyrite. Assays of quartz vein material average 3.0-4.0 g/t gold. Selected samples have returned >20.0 g/t gold at several locations along the zone.

Metasediments on either side of the veins are siliceous and chloritized. Alteration can extend as much as 0.5 m on either side of the veins. Assays of this material range up to 3.0 g/t gold.

At line 4+00S, galena and sphalerite occur with quartz and arsenopyrite. Assay results have returned up to 0.09% Pb, 0.23% Zn and 170 g/t Ag.

The mineralization is believed to be associated with shearing and tension fracturing running parallel to the trend of the metasedimentary rock unit. Chloritic fault gouge can be observed in several of the trenches. In places, the trend of the metasedimentary unit has been offset by younger east-west orientated faults giving the system an echelon appearance.

#### GOPHER ZONE TR-3

In the south half of lot 18, concession XV, trenching has exposed a quartz-chlorite filled tension fracture occurring within gabbro at the contact with metasedimentary schists. This gold discovery is different than other occurrences on the property. Gold mineralization occurs in chlorite and Fe carbonate alteration marginal to quartz veins. The vein dips moderately east and is up to 1.0 m wide. Chlorite-Fe carbonate alteration on the footwall of the vein is up 0.75 m wide and 0.2-0.3 m on the hangingwall. Assay values for gold within the chloritic material range up 3.5-4.2 g/t with selected samples assaying as high as 20.9 g/t. Samples of quartz with pyrite assay between 0.3-1.3 g/t gold.

The chlorite-quartz mineralization is confined to the gabbro and is truncated by the metasedimentary schists. The length of the zone is unknown for lack of outcrop in the area. The contact between the gabbro and sediments is sharply faulted. An assay of the fault returned 0.8 g/t gold across 0.2 m. Fracturing parallel to this plain has offset the quartz-chlorite vein.

The unit of metasediments lying north of the gabbro is believed to be approximately 10 m wide. On the other side of the metasediments are mafic metavolcanic rocks. This contact is the same contact at Heron Pond which forms the footwall to the gold bearing structure. During the most recent trenching of the Gopher Zone a boulder was found during digging that consists of silicified and chloritic metasediment, well-mineralized with arsenopyrite and similar to other gold occurrences on the property such as Heron Pond. The mineralization does not occur in any trenches at the Gopher Zone but does suggest that this type of mineralization occurs very close to the site. A gold assay of the float returned 2.4 g/t.

#### BLACK RIVER SOUTH TR-6

Gold can be found in outcrops of metasedimentary rock along the Black River in the north half of lots 19 and 20, concession XV and into the south half of lot 20 concession XVI. The metasediments contact mafic metavolcanics to the east and it is the same contact striking through the Gopher Zone and Heron Pond located to the south. The gold-bearing mineralization consists of siliceous-chloritic metasediment with arsenopyrite and pyrite.

Poorly exposed, mineralization can be traced periodically along the river for a distance of 400 m. Alteration is poddy and could be associated with both mafic and felsic dikes trending northwest through the area. Occurrences of alteration on the sides of the dikes have assayed 0.5-1.0 g/t gold. Thin quartz stringers within the zone have yielded gold assays up to 1.3 g/t over 1.0 m.

#### BLACK RIVER NORTH TR-1

A trench in the south half of lot 20, concession XVI exposes a sugary quartz vein on the east side of a felsic dike striking northwest through metasedimentary schists. The metasediments are the same unit as trending through the Black River South, Heron Pond and Gopher zones. The contact with the mafic metavolcanic rock is approximately 100 m northeast of the trench.

The quartz vein is exposed for 6 m striking north and pulling away from the dike. It is between 0.15 to 0.5 m wide and dips moderately southeast. The vein contains fragments of metasediment wallrock and is well-mineralized by arsenopyrite.

Assay values for gold in the vein average between 2.1 g/t and 4.6 g/t across 0.5 m. Some selected samples of vein material have assayed 14.9 g/t to 56.8 g/t gold.

#### CHRISTIE ZONE TR-2

Several trenches follow shearing and veining in metasedimentary rock for a distance of 20 m in the southwest corner of lot 20, concession XVI. The mineralization is similar to other gold occurrences on the property and consists of silicified-chloritic metasediment and sugary quartz veins well-mineralized with arsenopyrite and pyrite.

Several parallel shears occur together in the zone. They range in width of 0.2 to 2.0 m wide and dip moderately southwest. Sheared rock is silicified, chloritic and mineralized by pyrite and arsenopyrite. Assay results of sheared metasediment have varied between 0.5 g/t and 6.2 g/t. Quartz vein material with arsenopyrite has assayed from 1.9 g/t to 2.7 g/t over widths of 0.5 m.

#### FLOAT OCCURRENCES

A small boulder of silicified-chloritic metasediment well-mineralized by arsenopyrite was found in the south half of lot 21, concession XVI on the east side of the road where it is crossed by line 37+00N. An assay for gold showed 2.0 g/t.

A group of similar mineralized boulders are located in the south half of lot 20, concession XVI. 12 boulders were found grouped together approximately 30 m west of the river. Assay results range from 0.2 g/t to 3.0 g/t gold. Attempts to trench the zone have failed due to flooding. Another boulder, found 70 m northwest and on strike assayed 1.6 g/t gold.

Several large angular boulders have been found between the trail and the north shore of the swamp in the south half of lot 15, concession XIII. The boulders consist of altered and veined metasediment, arsenopyrite and pyrite. Mineralization is consistent with other known gold occurrences on the property. Assay values vary to 1.3 g/t gold. The boulders are located very close to the mafic metavolcanic contact. It is believed that this is the extension to the mineralization found at Heron Pond South.

#### IV. CONCLUSIONS AND RECOMMENDATIONS

The gold occurrences within the Black River property are found in pelagic metasedimentary schists. Gold is associated with quartz veining and shearing in the metasediments close to the contact with mafic metavolcanic flows that occupy the east side of the property. The mineralization and shearing are believed to be associated with faulting at the metasediment-metavolcanic

contact. Erosion along the fault has resulted in the development of a well-defined topographic lineament which also marks the metasediment-metavolcanic contact. This lineament can be traced trending northwest-southeast for over 10 km. The location of the gold occurrences on the property lie along a 5 km area of the lineament. A total of 8 gold occurrences have been found on the property, 3 of the occurrences consist of mineralized boulders believed to be close to the source.

The dimensions of the gold occurrences are unknown due to poor rock exposure. Trenching and prospecting have revealed enough evidence to suggest most targets are in excess of several hundred metres long and at least one target, Heron Pond is over 1200 m in strike.

Gold assay values of any mineralized zone averages between 2.0-4.0 g/t. All the bedrock occurrences have returned assays as high as 16.9 to 56.8 g/t gold.

The Black River property has evidence of there being a high grade gold deposit within the property boundary and for this reason further exploration is warranted. It is recommended that soil samples be taken over the lineament at sufficient intervals along grid lines. This should be followed by an I.P. geophysical survey. Further investigation by trenching along showings is needed. Eventually, gold occurrences will need to be drill tested.

A budget for such a programs is:

soil samples collection	\$10,000
I.P survey	30,000
trenching	5,000
diamond drilling	30,000
analysis	20,000
supervision and personal	30,000
food and accommodation	15,000
reports	<u>5,000</u>
	<u>\$145,000</u>

Respectfully submitted,



Robert J. Dillman B.Sc.  
Geologist

January 6, 1997

REFERENCES

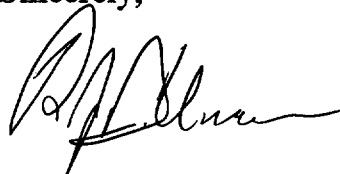
- Christie, B.J., 1992. Report on Prospecting, Geological Mapping, and Soil Sampling, Dillman Black River Property, Grimsthorpe Township, Southern Ontario Mining Division, Ontario. Unpublished internal report for Homestake Canada Ltd.
- Dillman, R.J., 1992. Report on Electromagnetic (VLF) and Magnetic Surveys, Black River Property, Grimsthorpe Township, Southern Ontario Mining Division, Ontario. Report for the Ontario Prospectors Assistance Program, file no. OP92-235
- Dillman, R.J., 1991. Report on Prospecting, Grimsthorpe Township, Hastings County, Ontario. Report for the Ontario Prospectors Assistance Program, file no. OP91-535
- Easton, R.M., and Ford, F., 1990. Geology of the Grimsthorpe Area. In Summary of Field Work and Other Activities 1990, Ontario Geological Survey, Miscellaneous Paper 151, p. 99-110.
- Meen, V.B., 1942. Geology of the Grimsthorpe-Barrie Area; Ontario Department of Mines, Vol. 51, pt. 4, p. 1-50 (with Map 51d: published 1944).

## AUTHOR'S CERTIFICATE

I, Robert J. Dillman, declare that:

1. I am a Geologist and hold a Bachelor of Science Degree granted to me in 1992 by the University of Western Ontario.
2. I have been practicing as a professional Geologist since 1992.
3. I have been a licensed Prospector in the Province of Ontario since 1979.
4. The information I have provided in the report titled Report of Trenching, Black River Property, Grimsthorpe, Ontario, OPAP File: OP96-185, dated January 6, 1997, is as accurate and true as to the best of my knowledge.
5. I have not provided false information for personal gain.
6. I reside and practice my profession from the residence located at 8901 Reily Drive, RR#5 in the town of Mount Brydges, Ontario.

Sincerely,



Robert James Dillman

Dated: Jan. 6, 1997

**ACTLABS**

**ACTIVATION  
LABORATORIES LTD**

Invoice No.: 11897  
Work Order: 11973  
Invoice Date: 03-DEC-96  
Date Submitted: 13-NOV-96  
Your Reference: LETTER  
Account Number: R004

ROBERT DILLMAN  
3901 REILY DRIVE  
RR5 MOUNT BRYDGES, ONTARIO  
N0L 1W0

CERTIFICATE OF ANALYSIS  
-----

FIRE ASSAY INAA

CERTIFIED BY :

*per*   
DR. ERIC L. HOFFMAN

Activation Laboratories Ltd. Work Order: 11973 Report: 11897

Sample description	AU PPB
4751	171
4752	1450
4753	2440
4754	1930
4757	3040
4758	2010
4759	3310
4755	59
4756	13
4760	402
4761	103
4762	240
4763	1370
4764	4090
4765	65
4766	4
4767	102
4768	184
4769	118
4770	835
4771	1260
4772	41
4773	2440
4774	542
4775	21
4776	26
4777	51
4778	818
4779	510
4780	295
4781	1930
4782	761
4783	3140
4784	153
4785	2060
4786	2800
4787	2700
4788	8
4789	54
4790	17

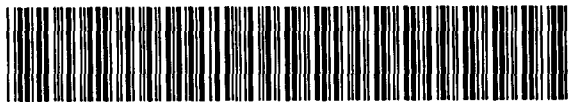




Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W9890.00007
Assessment Files Research Imaging



31C14SW2001 2.18357 GRIMSTHORPE 900

section 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, assessment work and correspond with the mining land holder. Questions about this form should be directed to the Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario N2P 2L6.

- Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

2.18357

1. Recorded holder(s) (Attach a list if necessary)

Name ROBERT J. DILLMAN	Client Number 125989
Address 8901 REILY DRIVE RRS MOUNT BRYDGES, ONTARIO N0L 1W0	Telephone Number (519) 264-9278
	Fax Number (519) 264-9278
Name	Client Number
Address	Telephone Number
	Fax Number

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

- Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
- Physical: drilling stripping, trenching and associated assays
- Rehabilitation

Work Type TRENCHING	Office Use
	Commodity
	Total \$ Value of Work Claimed 5760
Dates Work Performed From Day 25 Month 10 Year 96 To Day 6 Month 01 Year 1997	NTS Reference
Global Positioning System Data (if available)	Mining Division Southern Ontario
Township/Area GRIMSTHORPE TWP.	Resident Geologist District Tweed
M or G-Plan Number M. 97	

- Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
  - provide proper notice to surface rights holders before starting work;
  - complete and attach a Statement of Costs, form 0212;
  - provide a map showing contiguous mining lands that are linked for assigning work;
  - include two copies of your technical report.

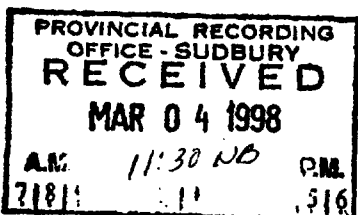
3. Person or companies who prepared the technical report (Attach a list if necessary)

Name R. DILLMAN	Telephone Number (519) 264-9278
Address 8901 REILY DR. MT. BRYDGES ONT.	Fax Number (519) 264-9278
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

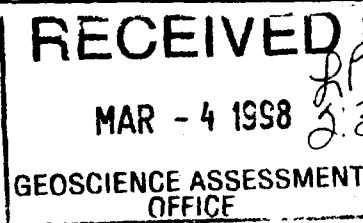
4. Certification by Recorded Holder or Agent

I, ROBERT DILLMAN (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent <i>[Signature]</i>	Date FEB. 28, 1998
Agent's Address	Telephone Number (519) 264-9278
	Fax Number



Deemed June 2/98



5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9890.00007

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at appraise date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 1076804	2	\$ 1654	800 /	N/A	\$ 854
2 1076805	2	\$ 1653	800 /	N/A	\$ 853
3 1076806	2	\$ 1653	800 /	N/A	\$ 853
4 1150984	2	\$ 800	N/A /	N/A	\$ 800
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals	8	\$ 5760	\$ 2400	—	\$ 3360

I, ROBERT J. DILLMAN (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing

*Robert J. Dillman*

Date

Feb. 28, 1998

6. Instruction for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

DELETE CREDITS FROM 1150984

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp

RECEIVED  
MAR - 4 1998  
GEOSCIENCE ASSESSMENT OFFICE

Deemed Approved Date

Date Notification Sent

Date Approved

Total Value of Credit Approved

Approved for Recording by Mining Recorder (Signature)



Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)  
W9890.00002

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 886. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 8B5

\* Amendment (signature)

2.18357

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit of work	Total Cost
TRENCHING	GEOLOGIST 11 DAYS	\$200/DAY	\$2750
TRENCHING	HELPER 8 DAYS	\$150/DAY	1200
ASSAYS	40 ROCK SAMPLES	\$16.05/SAMPLE	642
Associated Costs (e.g. supplies, mobilization and demobilization).			
	SHIPPING		61
Transportation Costs			
	ROAD 1206 km	\$0.30/km	361
Food and Lodging Costs			
			747

RECEIVED

Total Value of Assessment Work

\$5761.-

MAR - 4 1998

Calculations of Filing Discounts: GEOSCIENCE ASSESSMENT OFFICE

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK

x 0.50 =

Total \$ value of worked

Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, ROBERT J. DILLMAN, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as RECORDED HOLDER. I am authorized to make this certification.

*R.J. Dillman*

MAR 04 '98 16:13

\*\* TOTAL PAGE. 02 \*\*

5192649278

PAGE. 01

Note:

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, ROBERT J. DILLMAN, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as RECORDED HOLDER. I am authorized to make this certification.

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

May 26, 1998

ROBERT JAMES DILLMAN  
8901 REILY DRIVE  
R R #5  
MT BRYDGES, Ontario  
N0L-1W0

Telephone: (888) 415-9846  
Fax: (705) 670-5881

Visit our website at:  
[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm)

Dear Sir or Madam:

**Submission Number: 2.18357**

**Status**

**Subject: Transaction Number(s):** W9890.00007 Deemed Approval

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at [benetest@epo.gov.on.ca](mailto:benetest@epo.gov.on.ca) or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY  
Blair Kite  
Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

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**Submission Number:** 2.18357

**Date Correspondence Sent:** May 26, 1998

**Assessor:** Steve Beneteau

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<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9890.00007	1076804	GRIMSTHORPE	Deemed Approval	May 25, 1998

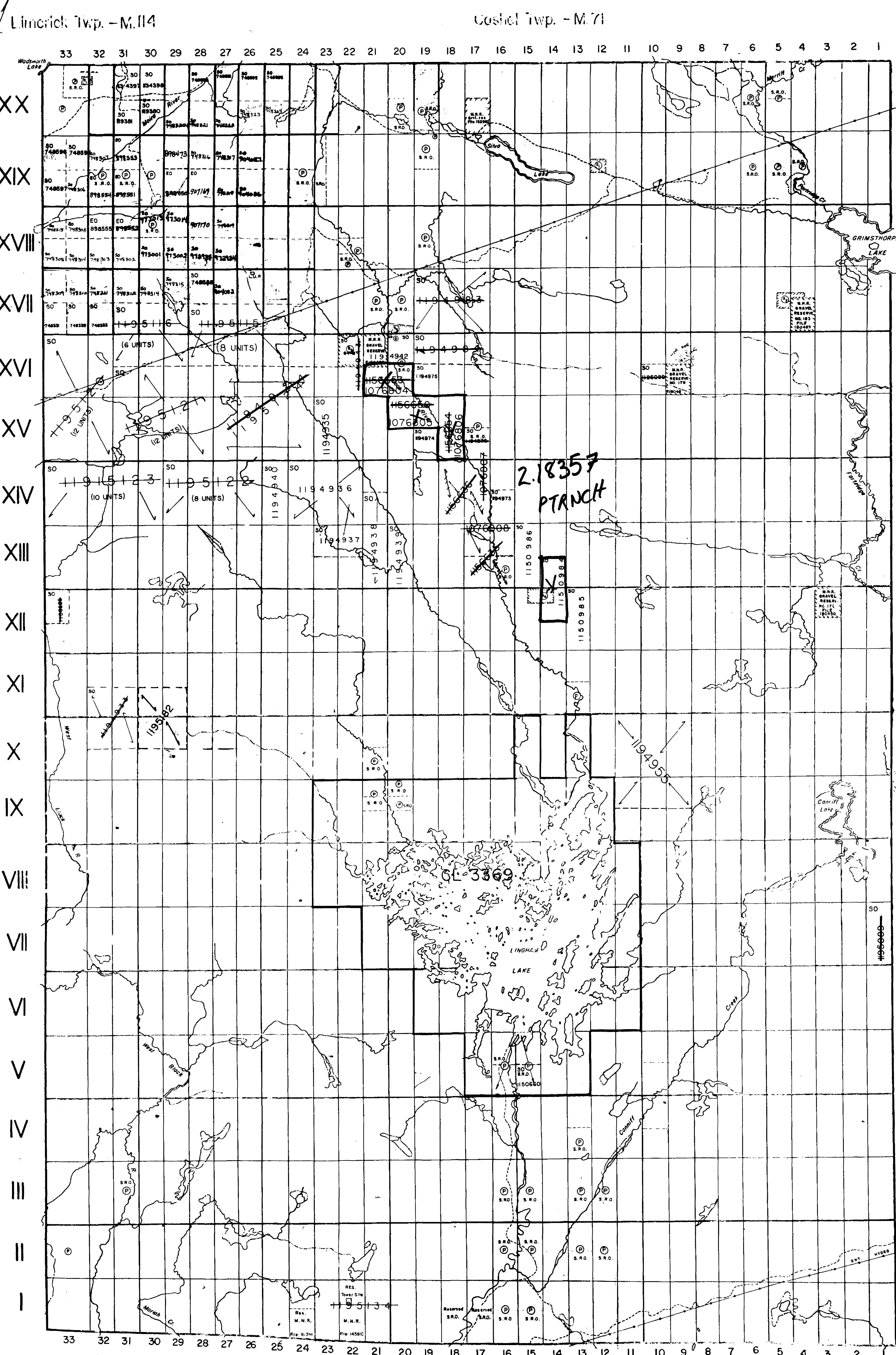
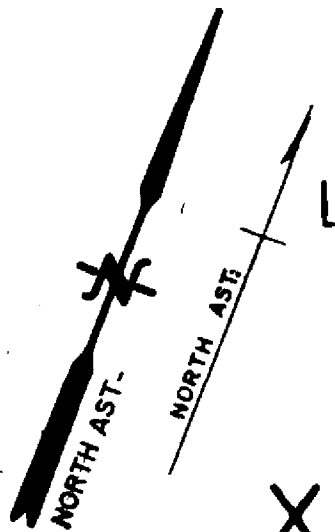
**Section:**  
10 Physical PTRNCH

**Correspondence to:**  
Resident Geologist  
Tweed, ON

**Recorded Holder(s) and/or Agent(s):**  
ROBERT JAMES DILLMAN  
MT BRYDGES, Ontario

Assessment Files Library  
Sudbury, ON

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XX  
XIX  
XVIII  
XVII  
XVI  
XV  
XIV  
XIII  
XII  
XI  
X  
IX  
VIII  
VII  
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II  
I

THE TOWNSHIP OF  
OF  
**GRIMSTHORPE**  
COUNTY OF  
HASTINGS  
SOUTHERN ONTARIO  
MINING DIVISION  
SCALE: 1-INCH = 40 CHAINS

**LEGEND**

PATENTED LAND	⊙
CROWN LAND SALE	⊙
LEASES	⊙
LOCATED LAND	⊙
LICENSE OF OCCUPATION	⊙
MINING RIGHTS ONLY	⊙
SURFACE RIGHTS ONLY	⊙
ROADS	—
IMPROVED ROADS	—
KINGS HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKOG	—
MINES	⊙
CANCELLED	⊙
QUARRY PERMIT	⊙

**NOTES**

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

**SAND and GRAVEL**

⊙	QUARRY PERMIT
⊙	M.N.R. 676 GRAVEL RESERVE
⊙	M.N.R. 677 GRAVEL RESERVE
⊙	M.N.R. 678 GRAVEL RESERVE
⊙	M.N.R. 679 GRAVEL RESERVE
⊙	M.N.R. 67' GRAVEL RESERVE

**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	Disposit.	File
SEC 14-20	W 9/82	12/12/82	S.R.O.	182950

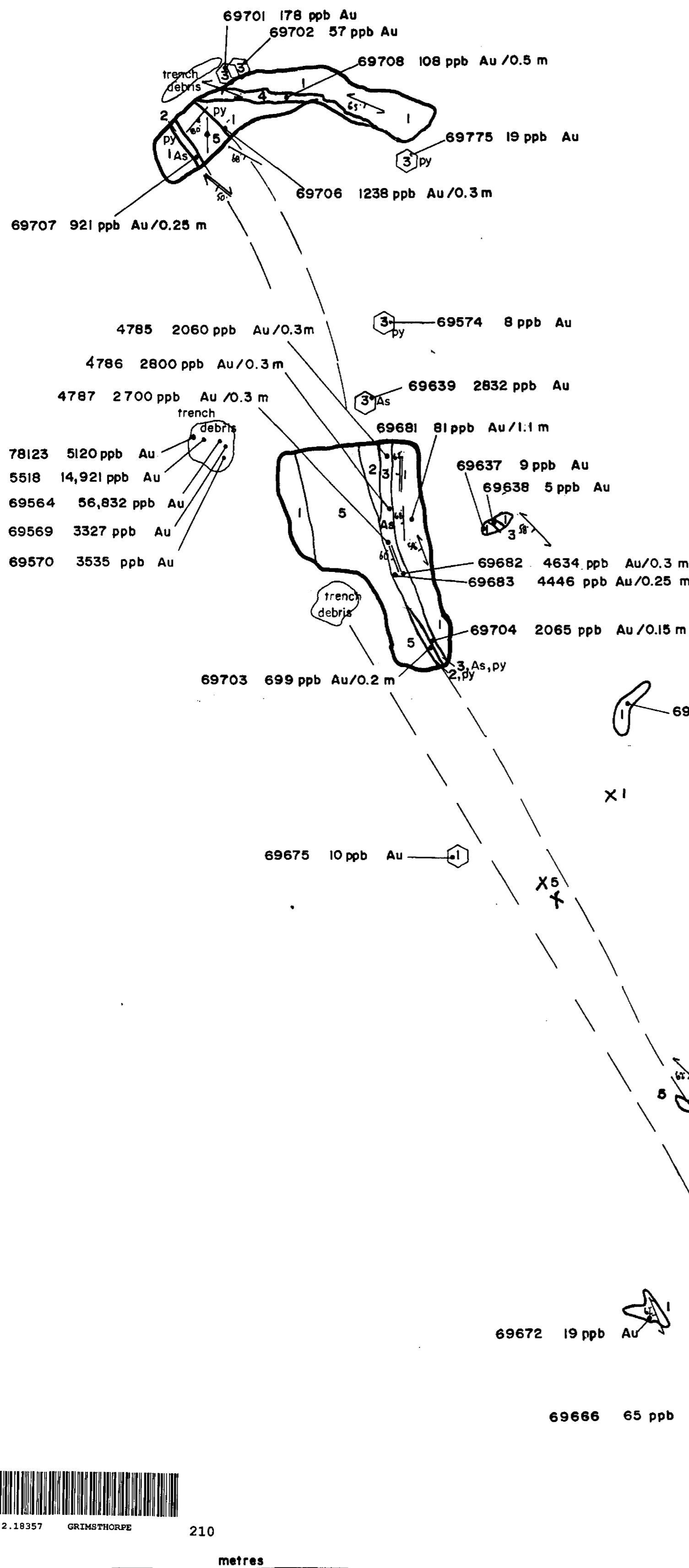
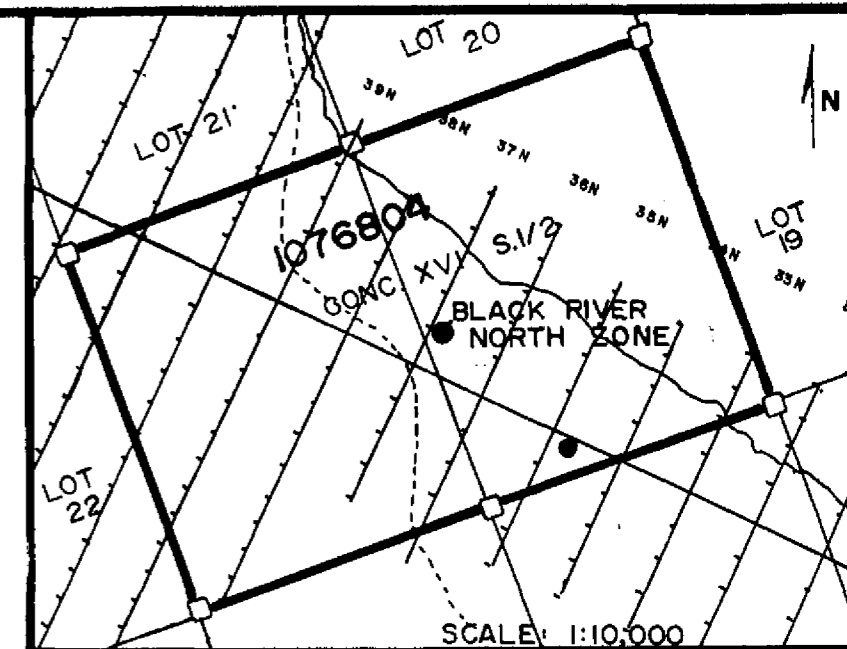
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

**PLAN M.97**

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEY AND MAPPING BRANCH

DATE OF ISSUE  
MAY 21 1998  
PROVINCIAL RECORDING  
OFFICE - GURBURY

RES. GEO. TWEED  
M.N.R. TWEED



**LEGEND**

- 5 Aplite Dike
- 4 Sheared Biotite-Muscovite Filled Fracture
- 3 Quartz Vein
- 2 Sheared+Silicified+Chloritized Rock (original rock type)
- 1 Metasedimentary Schist
- py pyrite
- As arsenopyrite
- orientation of contact
- orientation of vein
- orientation of jointing
- shearing
- foliation
- float



31C14SN2001 2.18357 GRIMSTHORPE 210



**BLACK RIVER NORTH ZONE**

**TRENCH PLAN**

**GRIMSTHORPE TWP., ONTARIO**

SCALE: 1:100

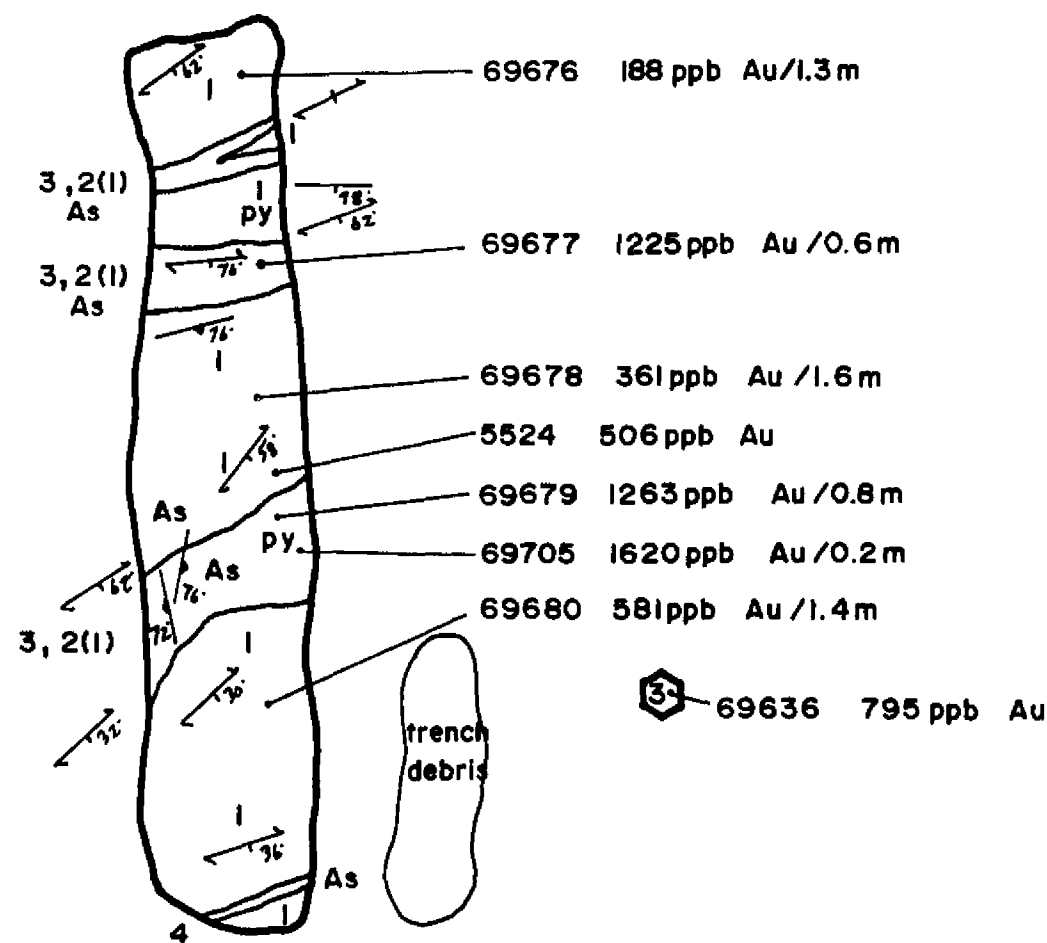
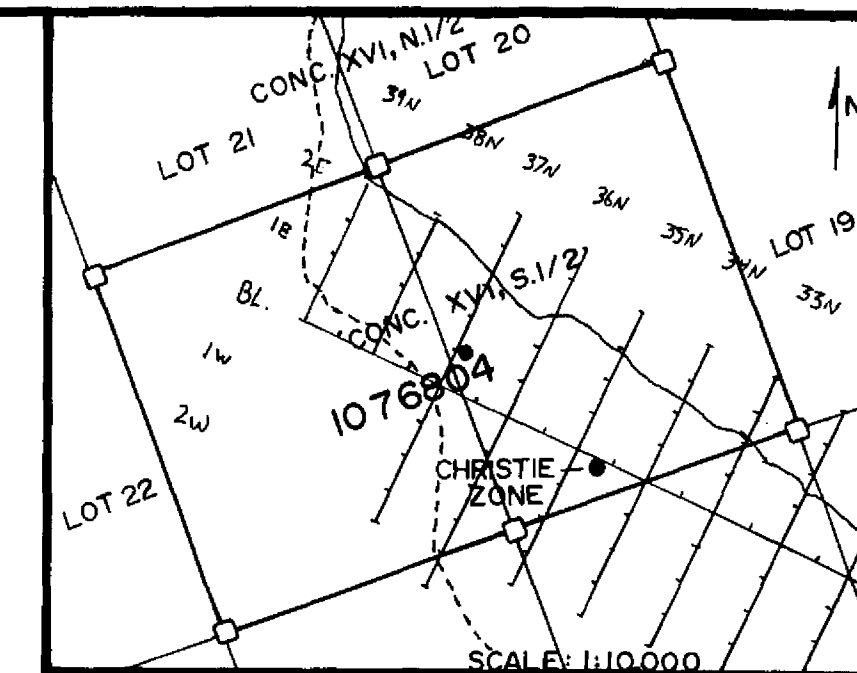
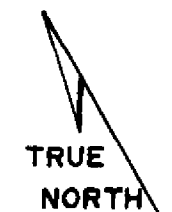
PLAN N° TR-1

DATE: DEC. 1992

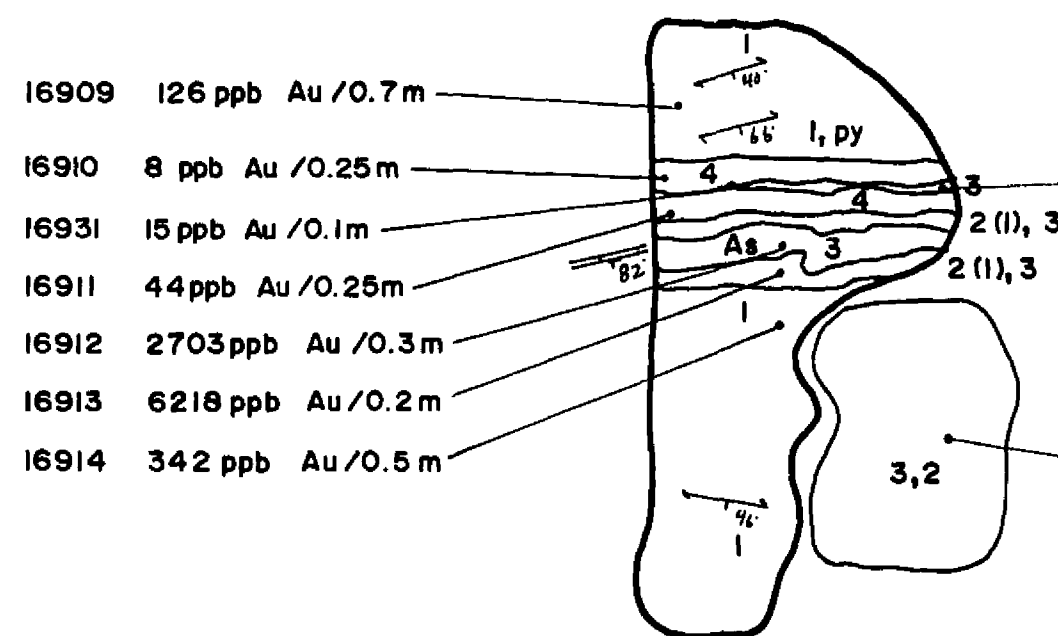
REVISED: 11/93, 21/12/96

DRAWN BY RJD

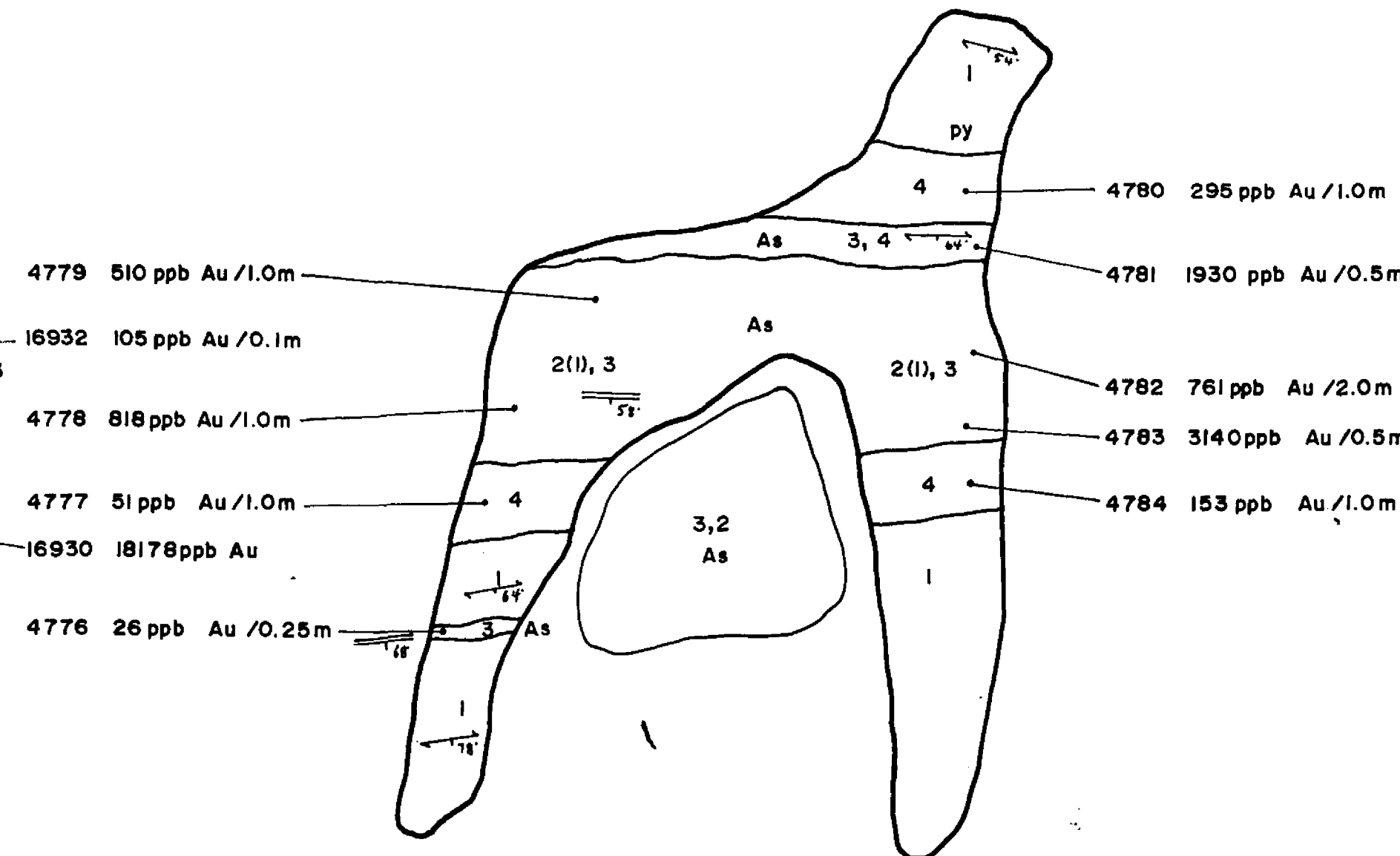
34+50N BASELINE



- 69676 188 ppb Au / 1.3 m
- 69677 1225 ppb Au / 0.6 m
- 69678 361 ppb Au / 1.6 m
- 5524 506 ppb Au
- 69679 1263 ppb Au / 0.8 m
- 69705 1620 ppb Au / 0.2 m
- 69680 581 ppb Au / 1.4 m
- 69636 795 ppb Au



- 16909 126 ppb Au / 0.7 m
- 16910 8 ppb Au / 0.25 m
- 16931 15 ppb Au / 0.1 m
- 16911 44 ppb Au / 0.25 m
- 16912 2703 ppb Au / 0.3 m
- 16913 6218 ppb Au / 0.2 m
- 16914 342 ppb Au / 0.5 m
- 16930 18178 ppb Au



- 4779 510 ppb Au / 1.0 m
- 16932 105 ppb Au / 0.1 m
- 4778 818 ppb Au / 1.0 m
- 4777 51 ppb Au / 1.0 m
- 4776 26 ppb Au / 0.25 m
- 4780 295 ppb Au / 1.0 m
- 4781 1930 ppb Au / 0.5 m
- 4782 761 ppb Au / 2.0 m
- 4783 3140 ppb Au / 0.5 m
- 4784 153 ppb Au / 1.0 m

LEGEND

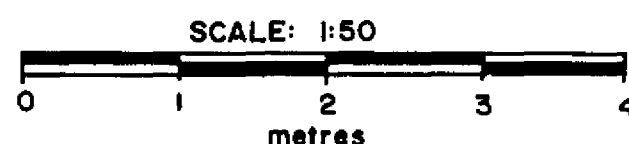
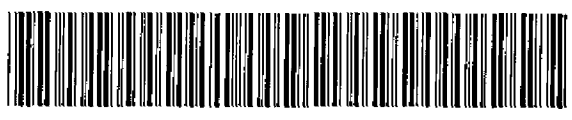
- 4 Sheared Biotite-Muscovite +/- Chlorite
- 3 Quartz Vein
- 2 Sheared + Silicified + Chloritized Zone (original rock type)
- 1 Metasedimentary Schist
- py pyrite
- As arsenopyrite
- orientation of contact
- orientation of vein
- orientation of jointing foliation
- float

2.18.97

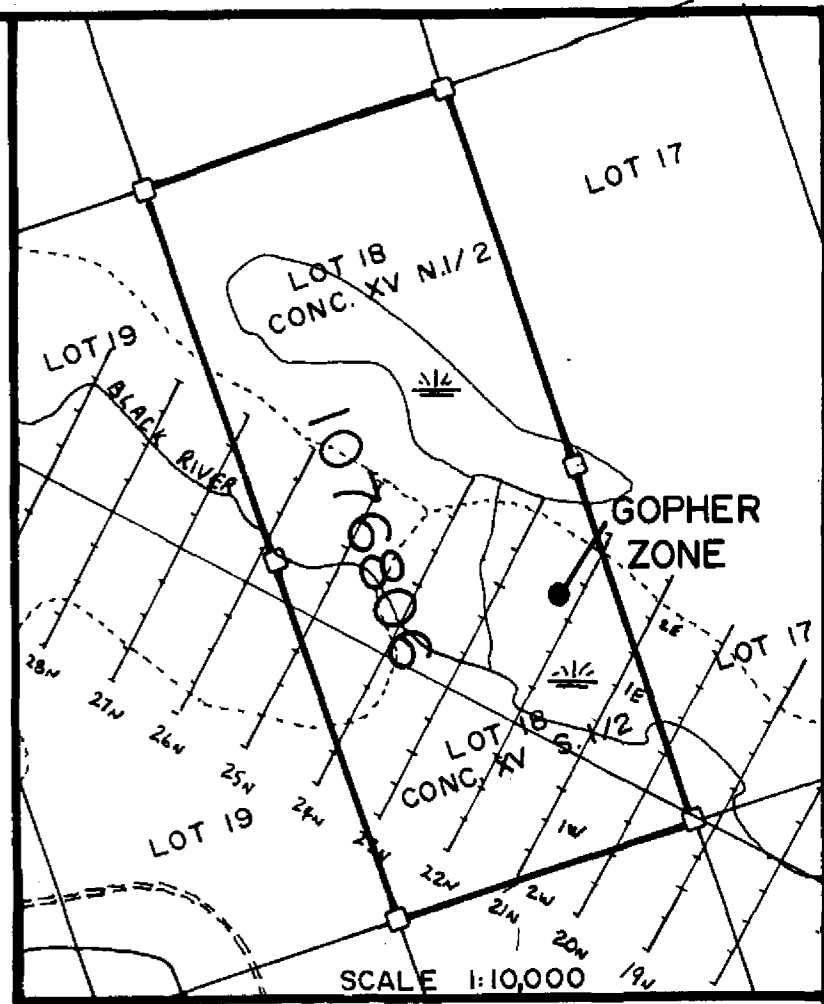
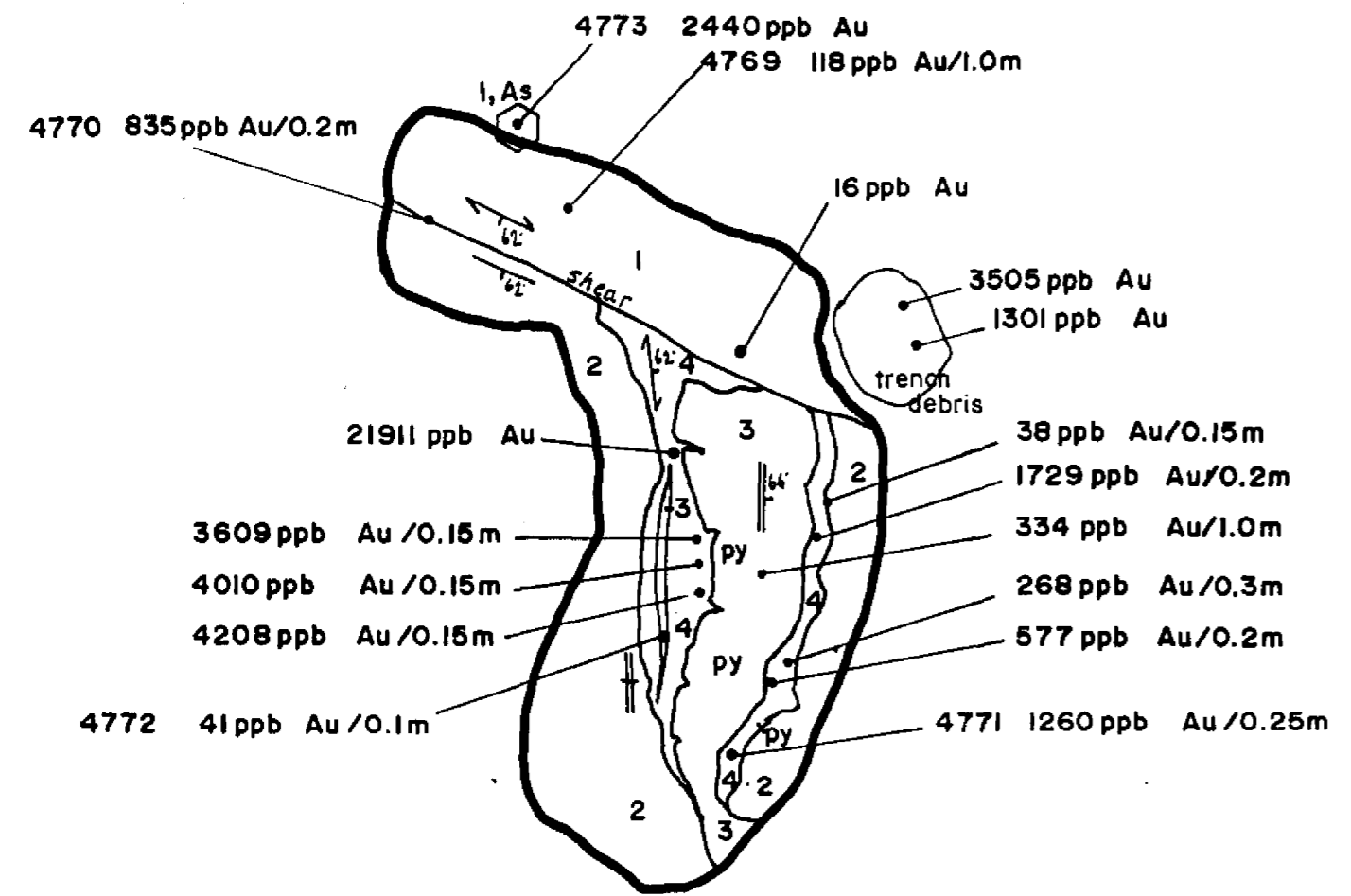
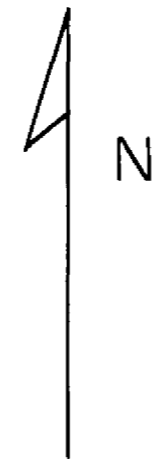
**CHRISTIE ZONE**  
**LOT 20, CONC. XVI, S. 1/2**

**GRIMSTHORPE TWP., ONTARIO**

SCALE 1:50	CHECKED BY	DRAWN BY RJD
DATE 20/12/96		
SIZE S01076804	DRAWING NO. TR-2	

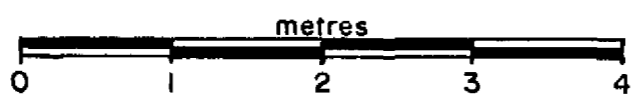
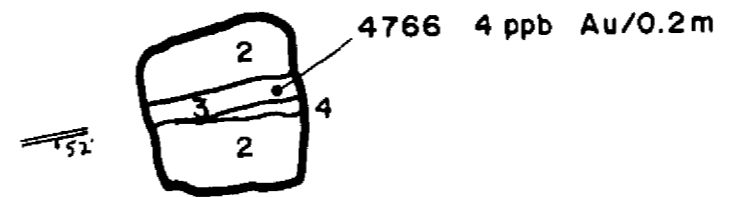
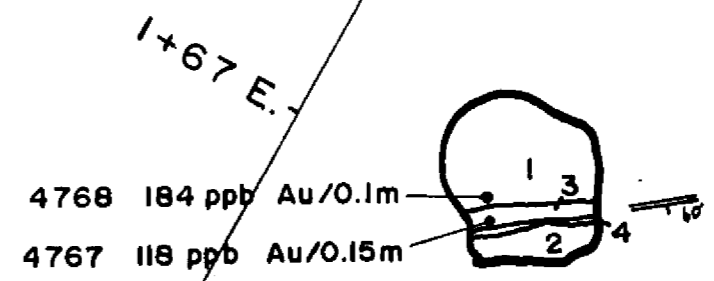






**LEGEND**

- ④ Chlorite + Fe carbonate alteration
- ③ Quartz vein
- ② Gabbro
- ① Metasedimentary schist
- orientation of vein
- foliation
- contact
- float
- py As pyrite, arsenopyrite



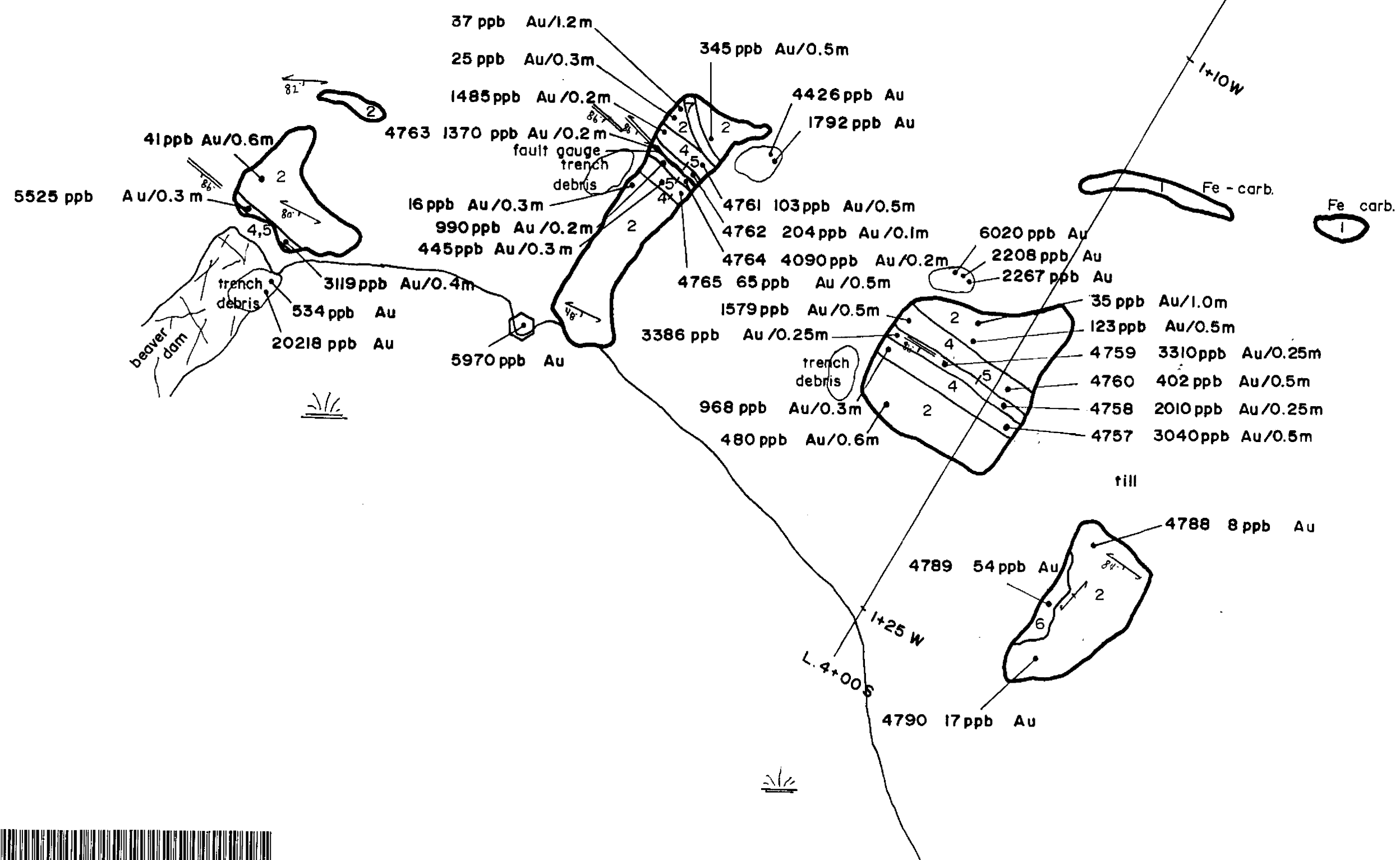
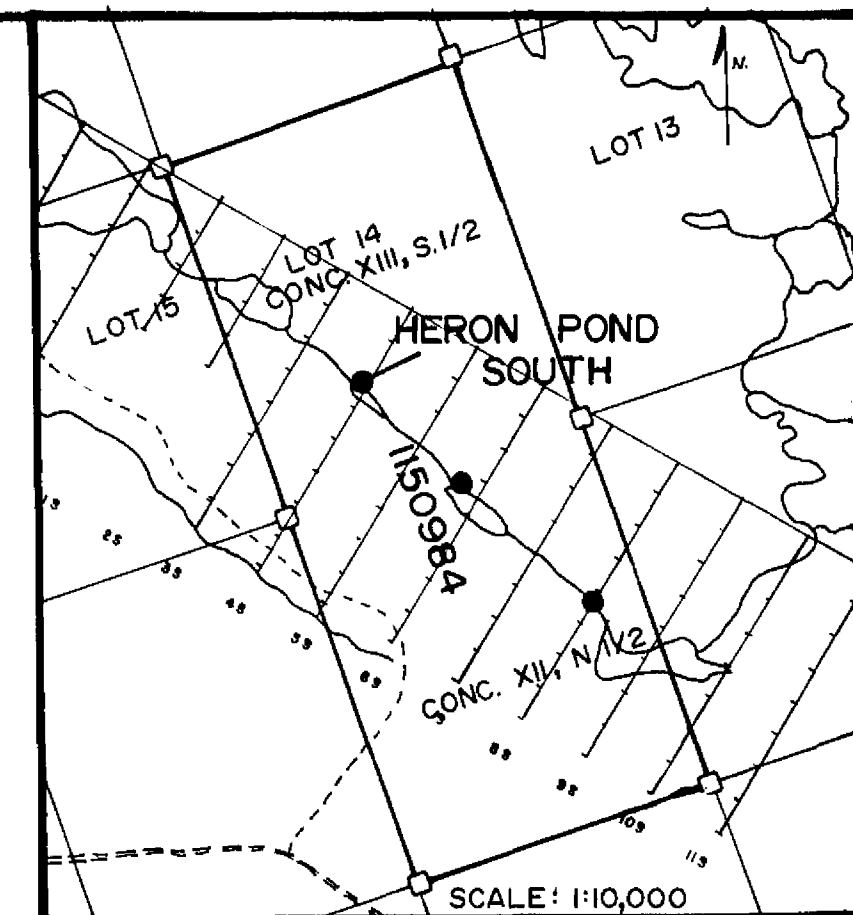
**GOPHER ZONE**  
**LOT 18, CONC. XV, S.1/2**

GRIMSTHORPE TWP., ONTARIO

SCALE 1:50	CHECKED BY	DRAWN BY RJD
DATE 12/93, 21/12/96		
SIZE	DRAWING NO. TR-3	

**SO 1076806**





**LEGEND**

LEGEND		SYMBOLS	
7	Mafic Dike	py	pyrite
6	Sheared Biotite-Muscovite Filled Fracture	As	arsenopyrite
5	Quartz Vein	dip + strike	dip + strike
4	Sheared + Silicified + Chloritized Rock (original rock type)	orientation of vein	orientation of vein
3	Marble	shearing	shearing
2	Greywacke, Argillite, Phyllite	foliation	foliation
1	Gabbroic Rock	float	float



31C14SW2001 2.18357 GRIMSTHORPE 240

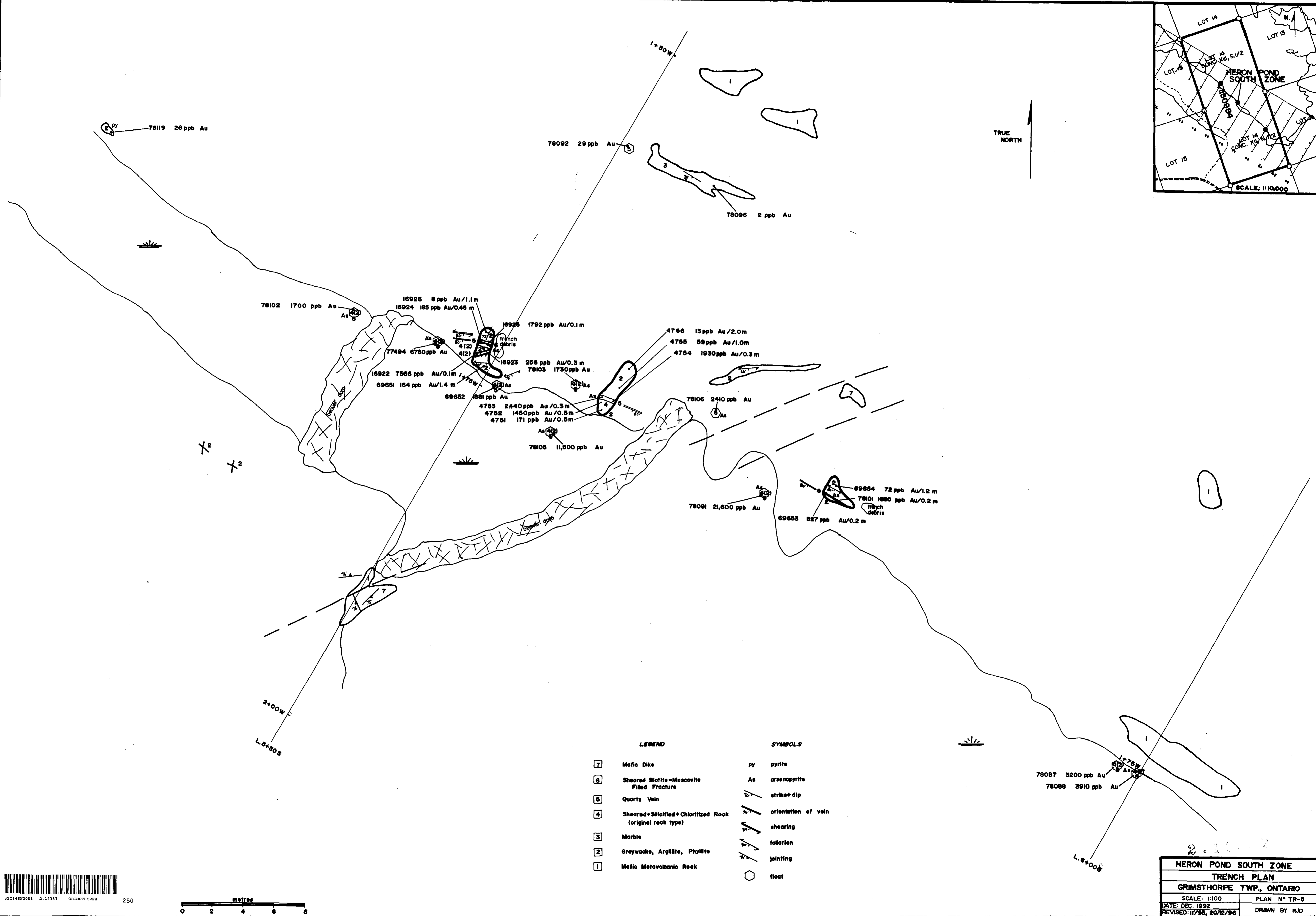
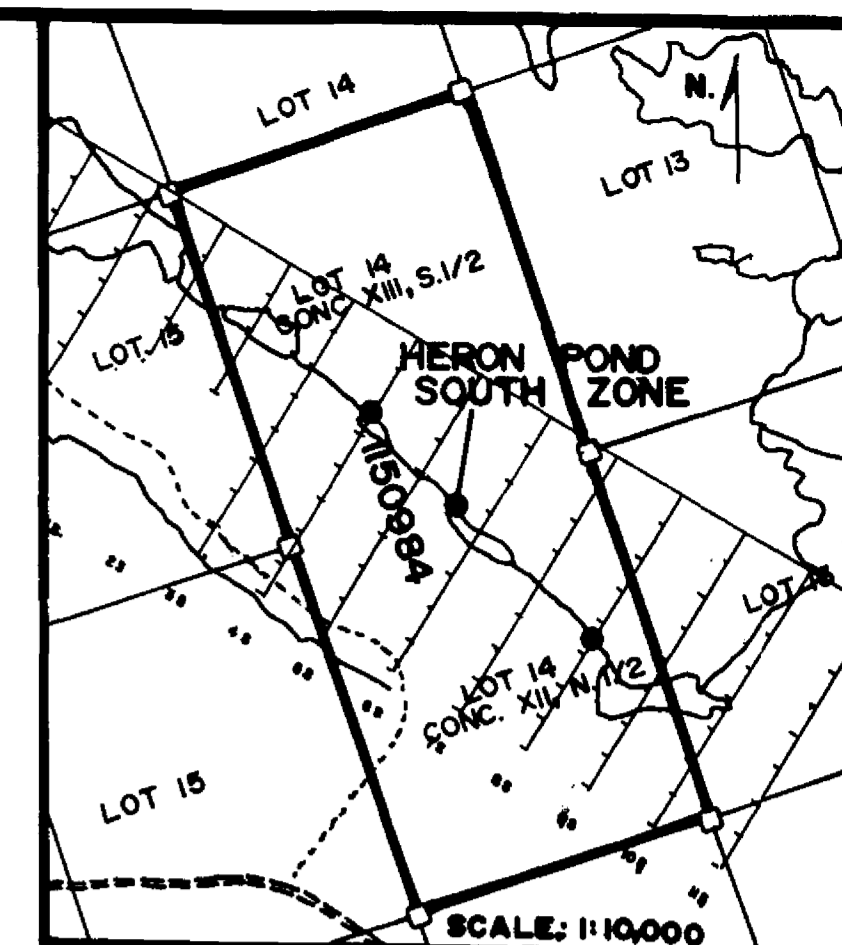


2.18357

**HERON POND SOUTH ZONE**  
**LOT 14, CONC. XIII, S. 1/2**

**GRIMSTHORPE TWP., ONTARIO**

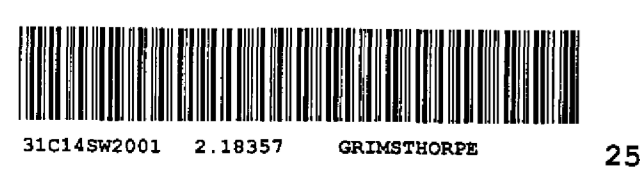
SCALE 1:100	CHECKED BY	DRAWN BY RJD
DATE 12/93, 20/12/96		
SIZE	SO 1150984	DRAWING NO. TR-4



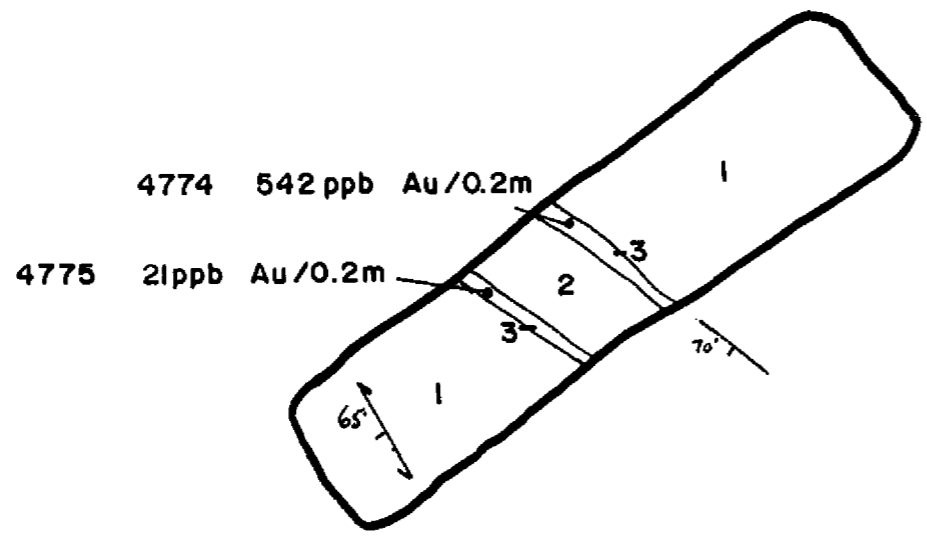
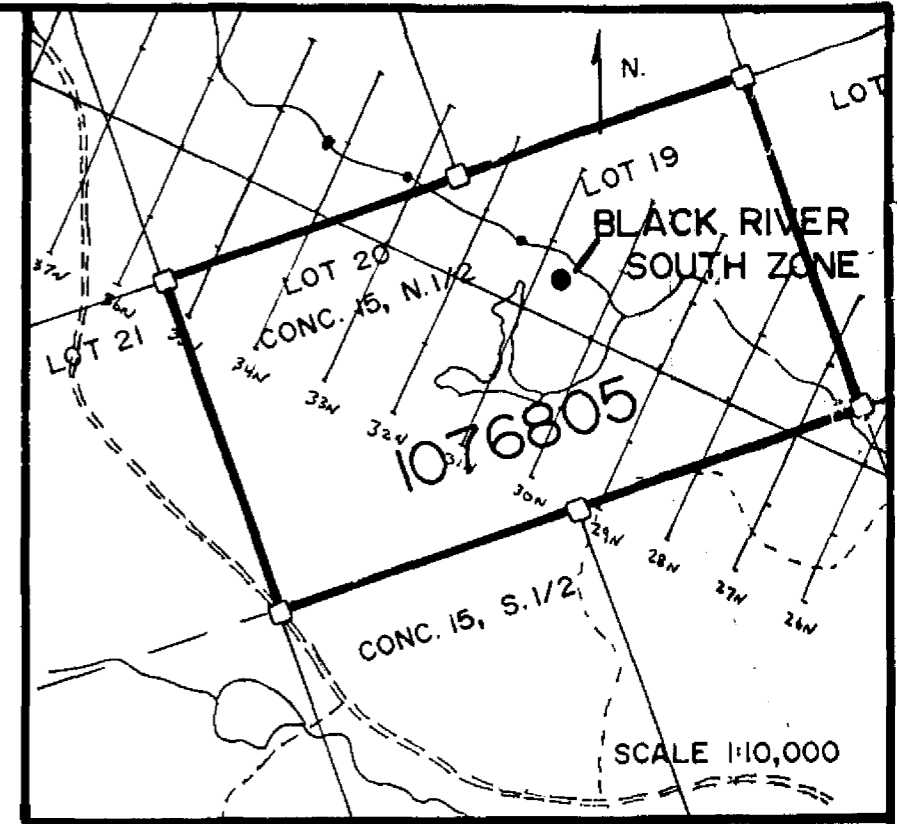
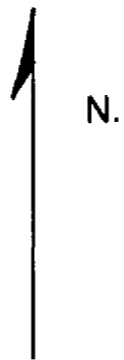
LEGEND		SYMBOLS	
7	Mafic Dike	py	pyrite
6	Sheared Biotite-Muscovite Filled Fracture	As	arsenopyrite
5	Quartz Vein	strike/dip	
4	Sheared+Silicified+Chloritized Rock (original rock type)	orientation of vein	
3	Marble	shearing	
2	Greywacke, Argillite, Phyllite	foliation	
1	Mafic Metavolcanic Rock	jointing	
		float	

2.11.97

HERON POND SOUTH ZONE	
TRENCH PLAN	
GRIMSTHORPE TWP., ONTARIO	
SCALE: 1:100	PLAN N° TR-5
DATE: DEC. 1992	DRAWN BY RJD
REVISED: 11/93, 20/12/96	



250 metres

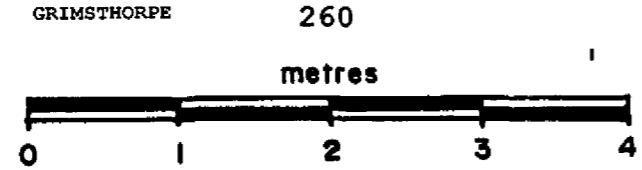


**LEGEND**

- 3 Silicified-chloritized metasediment
- 2 Felsic dike
- 1 Metasedimentary schist

- contact
- foliation

21127



<b>BLACK RIVER SOUTH LOT 19, CONC. XV, N.1/2</b>		
GRIMSTHORPE TWP., ONTARIO		
SCALE 1:50	CHECKED BY	DRAWN BY RJD
DATE 21/12/96		
SIZE	<b>S01076805</b>	DRAWING NO. <b>TR-6</b>