NTS: 31C/11
31C/12
31C/13
31C/14

REPORT ON: Prospecting
Geological Mapping
VLF Survey
Magnetics Survey
Area: Grimsthorpe Township
Tudor Township
Southern Ontario Mining Division
Ontario.
FILE No.: OP91-535

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Dec. 13, 1991

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I. INTRODUCTION

Scope

This report summarizes the results of regional prospecting in areas of Grimsthorpe Township and eastern regions of Tudor Township, Hastings County, Ontario. This report also includes a summary of detailed work on the claim group located in Grimsthorpe Township:

1150984	Lot 14, conc. 13, S½
	Lot 14, conc. 12, N½
1150985	Lot 13, conc. 12
1150986	Lot 15, conc. 13

This work included rock sampling, geological mapping, very low frequency electromagnetics (VLF), and a magnetics survey.

Location and Access

Access to Grimsthorpe Township can be made by following Highway 62 from Madoc to the village of Gilmour (figure 1). From Gilmour follow the Weslemkoon Road to the Skootamatta Lake Access Road. Just west of the bridge over the Black River there is a turnoff for an access road to Lingham Lake. This road travels south and approximately through the middle of the project area. Many small trails leave the road providing very good access to the area.

During the project lodging was taken in a small cottage on Sheldrake Lake approximately 40 kilometres east of the project area.

Logistics

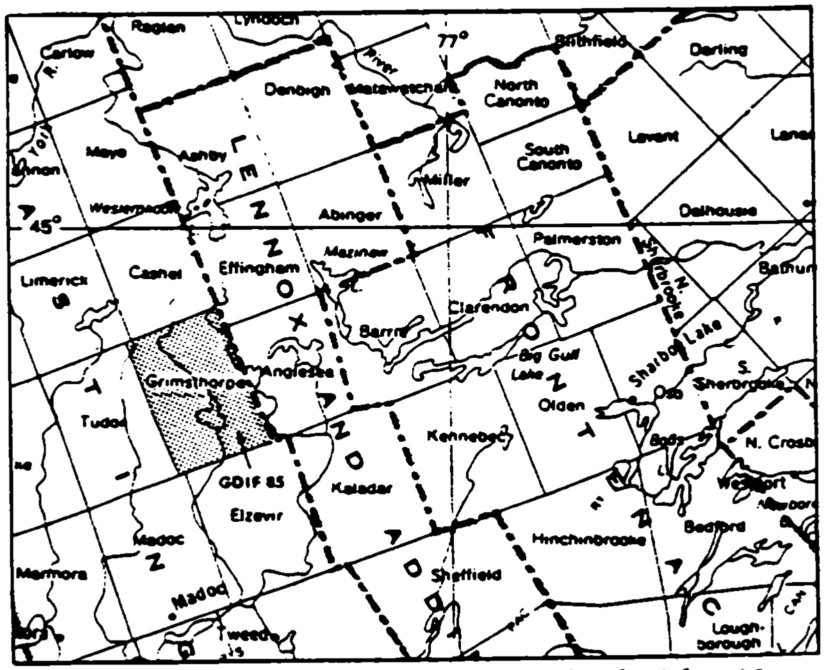
Rock sample locations taken during the regional prospecting phase are described and plotted on 1:5,000 scale plan maps of the individual lot and concession where the samples were taken. Geology recorded during the prospecting phase is plotted on a 1:10,000 scale plan of the central-eastern regions of Grimsthorpe Township (Map 1). For accuracy, a hip-chain, compass and topographical features were used for control. Detailed geology, mag and VLF from the claim group: 1150984-1150986 are plotted on 1:2,500 scale plan maps for each survey (Maps 2-4). Control for these surveys was achieved by constructing a grid.

Geological mapping, geophysics and prospecting described in this report were conducted during September and October, 1991. All work and report writing were carried out by:

R. Dillman
42 Springbank Dr.,
London, Ontario

Property Ownership

The three claims 1150984-1150986 inclusive, were staked in October, 1991 by R. Dillman and recorded in his name.



1 inch=16 miles

PROJECT LOCATION

Topography and Land-use

The Black River bisects the area concentrated on by regional prospecting traverses. This river flows south and west to Lingham Lake which occupies the lower-central region of Grimsthrope Township. The Black River is confined by a shallow and moderately wide valley that is conformable to the regional geological trend.

East of the Black River there are some of the highest elevations in the township. This area is dominated by high hills of outcroping basalt and very shallow overburden. Outcrop exposure is approximately 70% in this area.

West of the Black River the ground is much flatter and outcrop exposure decreases quite considerably. Large areas of land are till covered and most depressions contain swamp or bog. Outcrops are best found in the highest elevations or along sides of depressions.

Most of the overburden in Grimsthorpe Township is glacial derived. Tills dominate areas west of the Black River. They consist of different sized, angular material made up of locally sourced mafic metavolcanic rock and regional sourced, rounded granite boulders. Locally there are well-sorted deposits of sand and gravel.

Vegetation of the area is variable. Hardwoods such as birch, maple and oak dominate the higher elevations. White pine, spruce, and balsum grow in flatter areas and on till plains. Lower elevations have jack-pine and alders.

Airphotos of the area show at least two directions of topographic lineaments. The most frequent direction is on an average of 120°. This direction is conformable to regional geological trend. A second, weaker lineament prefers the orientation of approximately 40°. This direction has also been observed as the most common orientation of quartz veins in the project area.

Recently, there has been very limited logging activities in the project area. This has been confined to areas west of the Lingham Lake Road. Other than logging the only other apparent land-use in this region of Grimsthorpe Township is recreational use. Many small hunting cabins were located on prospecting traverses.

Previous Exploration Activities

Grimsthorpe Township has a sketchy history of mineral exploration. During the present survey no evidence was found to suggest that the central regions of Grimsthorpe Township have been prospected in much detail. Also, there is no report of work filed with Ministry of Natural Resources for this area.

Mineral exploration, mostly for gold, has been concentrated in the western and northwestern regions of the township. During

Previous Exploration Con't

1909 to 1914, gold was produced from the Gilmour Mine in lot 30, concession 19. This mine has the only record of production in Grimsthorpe Township.

Talc was discovered in 1910 on lots 8, 9, and 10, concession 5.

Regional geology was first mapped by Meen and Harding (1942). They reported talc occurrences in lot 13, concession 4.

In 1954, Stratmat Limited carried out a ground electro-magnetic survey over the talc occurrences in lot 13, conc. 4.

In 1955, drilling was preformed on the claim group referred to as the McMurray Group. A total of 793 feet were drilled on an arsenic occurrence in lot 33, concession 11.

After 1955, the Gilmour Mine and the area in proximity to the mine appear to be the only area of interest for mineral exploration. This property is currently held by Homestake Mineral Development Company.

II. GEOLOGY OF THE CENTRAL REGIONS OF GRIMSTHORPE TOWNSHIP

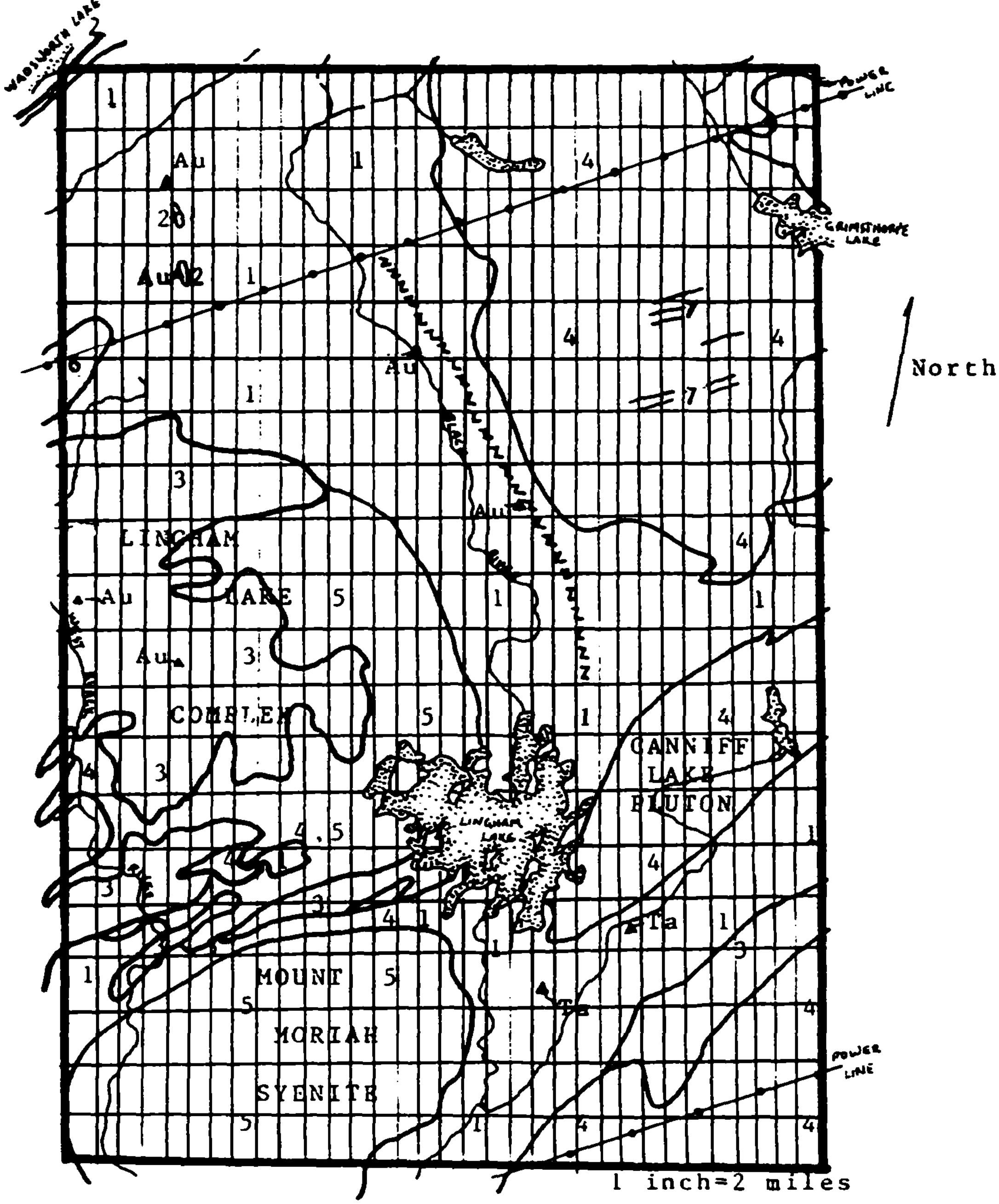
Introduction

The regional geology of Grimsthorpe Township and in adjacent townships to the south and east have been mapped in some detail by Meen and Harding (1942). To the west, in Tudor Township, the geology has been mapped in detail by Lumbers (1969). During the course of the present exploration program, geology was recorded along prospecting traverses to aid in locating favourable structures and horizons for gold and base metal mineralization. Results of this program are presented on Map 1 (Appendix 3). Rock sample locations are plotted on this map as well as being presented on individual lot and concession plans which show more detail surrounding the sample locations.

Summary of Geology

Grimsthorpe Township is in the Madoc-Bancroft area of the Grenville Province of the Precambrian Shield. The geology of the township is summarized in Figure 2. A sequence of formations is presented in Table 1.

The township is equally divided between mafic metavolcanics and igneous intrusive complexs. All rocks are of the Proterozoic age. There are very little metasedimentary rocks and the only mappable members of this unit are schists consisting of greywacke. Felsic metavolcanic rocks are also very rare and are limited to the northwestern regions of the township.



GEOLOGY OF GRIMSTHORPE TOWNSHIP

7	diabase	▲	mineral occurrence
6	trondhjemite	Au	gold
5	syenite	Ta	talc
4	granite	NNN	fault
3	diorite		
2	metasediment		
1	mafic metavolcanic		

TABLE 1

TABLE OF FORMATIONS

CENOZOIC

RECENT
Swamp, lake, and stream deposits
PLEISTOCENE
Clay, silt, sand, gravel

Unconformity

PROTEROZOIC

INTRUSIVE ROCKS
Granitic and syenitic rocks
Granitic and syenitic dikes and sills
Mafic dikes and sills
Mafic intrusive rocks

Intrusive contact

METASEDIMENT AND METAVOLCANICS
Carbonate metasediments
Clastic metasediments
Felsic Metavolcanics
Mafic Metavolcanics

(modified after Meen, 1942)

Geology Con't.

Crossing the Grimsthorpe-Tudor Township boundary are mafic intrusive rocks of the Lingham Lake Complex (Lumbers, 1969). This large pluton consists of differentiated flows of gabbro, diorite, and quartz-diorite. The core of the complex contains the ultra-mafic rocks: peridotite and pyroxenite. On the eastern side, the complex has been intruded by granite and syenite. Zenoliths of mafic metavolcanic rocks have been found in the central regions. The variation of rocks in the complex may be explained by the assimilation of basic lavas occuring as the intrusion took place beneath anticlinal folds of the mafic metavolcanics (Meen, 1942). Subsequent erosion has left the complex in it's present state.

To the east, a contact metamorphic aureole has developed in the mafic metavolcanic rocks contacting the complex. This metamorphic aureole is similar to that in rocks along the west margin of the complex (Lumbers, 1969). These rocks have become amphibole rich and strong foliations have developed that conform to the shape of the pluton.

Occupying all of the northeast corner of Grimsthorpe Township are granites. Mafic metavolcanic rocks have been squeezed between the batholith and the Lingham Lake Complex so that they have developed a trend to the southeast. Although the contact is not exposed, it appears to be sharpe and very little alteration has been imposed on the mafic metavolcanics.

In the central-eastern regions of the township, mafic metavolcanics occur between the granite batholith to the north and granites of the Canniff Lake Pluton to the south. This mafic metavolcanic belt has developed an east-west trend sharply contrasting to the southeast trend of the central greenstone belt. A significant regional structure may exist between the two trends.

In the vicinity of Lingham Lake the trend of the mafic metavolcanics swings to the southwest as the belt conforms to the Canniff Pluton and the Lingham Lake Pluton. South of the lake, the Mount Moriah Syenite Intrusive divides the mafic metavolcanics into two belts. One belt trends east-west between the Lingham Lake Complex and the Mount Moriah Syenite. The other swings south and joins with southwest trending mafic metavolcanic rocks between the Canniff Lake Pluton and the Elzevir Batholith.

Mafic Metavolcanic Rocks

The mafic metavolcanic rocks in the central regions of Grimsthorpe Township are the main rock type encountered during the prospecting traverses. These rocks consist of basalts and mafic schists.

Two distinct horizons of basalt occur in the map area. Their division is based on whether the rock is amphibole-rich or amphibole-poor. Their occurrences are separated by a regional structure that trends northwest through the project area (Map 1).

Mafic Metavolcanic Rocks Con't.

Amphibole-poor basalts occur east of the structure, paralleling the granite batholith in the northeast corner of the township, and between this batholith and the Canniff Lake Pluton. They are fine grained, massive, and grey in color. Characteristically, these amphibole-poor rocks form extremely large outcrops and dominate the highest elevations in the map area.

Amphibole-rich basalts occur in the western regions of the mafic metavolcanic belt. In the central regions of the belt the flows vary in amphibole content. Mapping the extent of each horizon is impossible due to the lack of outcrop exposure. Between flows, grain size varies such that amphibole-rich flows are coarser-grained than its counterpart.

In the vicinity of the Lingham Lake Complex the mafic metavolcanic rocks are predominately amphibole-rich and coarse grained. They are intensily altered and lie within the contact metamorphic aureole surrounding the Lingham Lake Complex. Strong foliations have developed which, over distance, conform to the shape of the pluton.

Schists

Two types of schists were observed while prospecting the mafic metavolcanic belt: mafic schists and sedimentary schists.

Mafic schists occur as thin, discontinuous units between mafic metavolcanic flows. They are most commonly found in the central regions of the belt and to a lesser extent, along the western margins of the belt. Some of the largest units of mafic schists occur along the Black River in lots 18 and 19, concession 15, and in lot 20, concession 16. They also occur along the road in lots 20 and 21, concession 15.

The mafic schists are usually composed of blackish to greyish green, very fine grained, aphanitic material. Schistosity is well developed. Where shearing is evident the schists may be strongly amphibolitized.

Sedimentary schists, although not as common as mafic schists, always occur with mafic schists. Sedimentary schists vary between slates and greywacke in composition and textures.

Accessory minerals in schists include biotite, hornblende, and pyrite. Pyrrhotite and arsenopyrite are rare but both have been observed in a number of localities which will be described in detail latter in this report.

Schist units are usually well sheared and in places, silicified. Where this has occurred and there is strong sulphide mineralization, including arsenopyrite, sometimes these zones return significant grades of gold upon assay.

Geology Con't

Fe-Carbonated Rocks

In many of the gold occurrences in the Madoc-Bancroft area Fe-carbonate alteration is a major component. For this reason, areas where the alteration was located were prospected in detail. This alteration tended to occur in sheared and brecciated zones.

Along the Skootamatta Road, Fe-carbonate alteration was observed in many of the road cuts. The most significant zone was found on lot 18, concession 16. Here, Fe-carbonate alteration was found in a sheared and brecciated outcrop on the south side of the road. The shear occurs in mafic metavolcanic rock. Fe-carbonate is seen as matrix in brecciated material. Minor pyrite and chalcopyrite were observed in the shear. Out of 3 samples taken of sheared and brecciated rock, the best assay showed 510 ppb Au.

Fe-carbonate occurs with quartz veins in rusty schists in lot 17, concession 16. The schists are well sheared and pyrite occurs in the schists and vein material. The quartz veins are up to 25 cm wide and strike perpendicular to the schistosity. The best assay from the zone showed only 250 ppb gold.

Fe-carbonated rock occurs along the Black River in lot 18, concession 15, and lots 20 and 21, concession 16. The rock is identical at each location. The rock consists of quartz, biotite and muscovite. It is strongly mylonitized, amphibolitized, carbonated, and a moderate foliation has developed. On lot 21, concession 16, quartz veins up to 80 cm in width cross cut the foliation. The veins are well mineralized with pyrite. Assays of the vein material showed no gold. In lot 18, concession 17, there is a strong VLF conductor coincedent with the Fe-carbonated rock. Quartz float found over the zone is well mineralized with pyrite and chalcopyrite and tourmaline has formed along the vein margins. Assays of the best material showed no gold.

In lots 11 and 12, concession 11, a zone of brecciated mafic metavolcanics was traced over 200 metres striking east-west. The zone is up to 3 metres wide. Fe-carbonate has infilled between mafic fragments. Pyrite is sparse and some small, white, barren quartz veins also occur in the zone. Assays of both vein material and breccia showed no gold.

Quartz Veins

Quartz veins are most abundant in the north-central regions of the map area. They can occur in any rock type or structural environment. The most common feature of the veins is that the majority strike in a northeast direction, roughly perpendicular to the general northwest strike of the host country rock.

Most of the veins encountered are small and have no strike-length. An exception to this occurs in lot 14, concessions 12 and 13. A detailed description of this area is given latter in this report under the heading "Geology of the Claim Group".

Sulphide mineralization in the quartz veins usually only consists of pyrite. Chalcopyrite was observed in one vein adjacent to a granitic dyke in lot 12, concession 11. Arsenopyrite has been found in a few veins including those in lot 14, concessions 12 and 13. Float boulders of vein material hosting arsenopyrite were discovered in lot 20, concession 16. Quartz veins with arsenopyrite also occur in mafic intrusive rocks in the central regions of the Lingham Lake Complex near the Tudor-Grimsthorpe township boundary. Descriptions of arsenopyrite bearing quartz veins are given under the heading "Arsenopyrite".

Economically, only quartz veins with arsenopyrite returned significant gold values upon assaying. All other veins showed only traces of gold or no values at all.

Arsenopyrite

Seven areas were found in Grimsthorpe Township where arsenopyrite occurs. Of the 7 locations, assays show that 4 of these showings have gold values >1000 ppb. The other 3 have gold values ranging between 150 ppb and <1000 ppb. At all the locations arsenopyrite occurs in zones of shearing ± quartz veins ± silicification. These zones were found in mafic metavolcanics, schists, and in mafic meta-intrusive rocks of the Lingham Lake Complex.

Lot 33, concession XI

In the southwest ¼ of lot 33, concession XI arsenopyrite was found at two locations (Figure 3). This area had been previously staked in 1955 and is known as the McMurray Group (AFRO #10). It is reported that 793 feet of diamond drilling was conducted to examine an arsenic occurrence.

A quartz vein with arsenopyrite is exposed in an old pit. The vein is up to 30 cm wide and can be traced 25 metres west from the pit until it eventually pinches off. The vein is hosted in sheared diorite. Stringers of quartz also parallel the vein and there is some degree of silicification and chlorite alteration in the shear. Arsenopyrite occus as clusters in the vein and along the vein contact. Assays of the best mineralized material only showed 196 ppb gold.

While prospecting in the vicinity of the pit another shear was found 110 metres east-southeast of the pit. This shear strikes N40° W and could only be traced 7 metres due to overburden. The sheared rock is diorite. The shear is up to 25 cm wide and a massive seam of arsenopyrite occupies the center of the shear. Epidote and minor tourmaline were observed with the arsenopyrite. Chips across the most mineralized area showed 2130 ppb gold.

Lot 29, concession X

Two old pits are located in the N½ section of lot 29, concession X (Figure 4). The largest pit is in a very large outcrop of diorite on the south shore of an east-west trending swamp. The second pit is in overburden on a small island 15 metres to the northwest from the larger pit. A small trail from a cabin in lot 29, concession X crosses between the two pits.

The largest pit opens up a quartz vein hosted in diorite. The vein is up to 30 cm wide and can be traced 5 metres. The pit is partially filled with water. The vein is well mineralized, especially along the contacts where arsenopyrite and pyrite are concenetrated in clots and stringers. Traces of native copper and chalcocite were observed in the quartz. Three samples were taken of the various mineralization in quartz debris from around the pit. A sample of quartz well mineralized with arsenopyrite assayed 7380 ppb gold. A sample of quartz containing copper mineralization and pyrite showed only traces of gold. A third sample, representative of the vein assayed 12,500 ppb gold

The second pit is small and filled with debris. A few large pieces of quartz are situated close to the pit. The quartz is rusty but no mineralization was observed. No sample was taken of the quartz.

Lot 20, concession XVI

Two angular pieces of quartz float were found between the Black River and the Lingham Lake Road in the S½ of lot 20, concession XVI.(Figure 5). Both pieces of quartz are of similar size measuring 25 cm x 20 cm x 15 cm and are spaced approximately 65 metres apart. Outcrops in the area consist of basalt, moderately amphibolitized, and mafic and sedimentary schists. Direction of ice movement is believed to be S6°W (Lumbers, 1969). Both pieces of quartz are well mineralized with arsenopyrite. A sample of the most easterly quartz float assayed 5120 ppb gold. Assays of the west piece showed 2010 ppb gold.

Lot 19, concession XV

A shear zone is exposed in outcrops of mafic and sedimentary schists and mafic metavolcanic rocks on lot 19, concession XV, north ½. The outcrops occur in the Black River. The shear zone can be traced up to 175 metres along the river (Figure 6). It is at least 5 metres wide. The rocks in the shear are strongly contorted and amphibolitized. Some areas are silicified and vein quartz occurs in the shear at the most northernly exposure. Arsenopyrite is finely disseminated through silicified areas and becomes more concenetrated in the vein quartz. A number of samples were taken of the best altered and mineralized areas at two locations along the shear. The best assay from the most southernly exposed location showed only 270 ppb across 1 metre. Three samples were taken at the most northernly exposed area. A sample of a 10 cm wide quartz vein showed 847 ppb gold. A sample of silicified material assayed 530 ppb across 1 metre. A third sample of chips across 1.5 metres showed 836 ppb gold.

Geology con't

Lot 20, concession XV

An outcrop of sheared and silicified mafic and sedimentary schists is exposed in the northwest corner of a swamp in the N½ of lot 20, concession XV. The swamp is between the Lingham Lake Road and the Black River. The shear trends northwest and strikes parallel to the shear zone in lot 19, concession XV. Not all of the width of the shear is exposed but it is at least 1 metre wide. Strong pyrite and traces of fine, disseminated arsenopyrite are found in silicified areas of the shear. Three samples were taken along strike of the shear. A sample of the best mineralization only showed 495 ppb gold (Figure 6).

Lot 14, concession XIII

A large shear was found along a creek crossing between lot 14, concession XIII and lot 14, concession XII. The shear trends northwest and occurs in mafic and sedimentary schists. Although the shear is poorly exposed, it has been traced at least 750 metres. Gold values up to 21,500 ppb have been found in float and outcrop along the creek. Arsenopyrite and pyrite occur in silicified zones and in quartz stringers associated with the shearing. Significant assay results prompted the staking of 3 claims. The area of the shear zone was mapped and covered by geophysics. The results of this work are contain in this report.

Lot 13, concession XI

While constructing a road along the Black River, a number of mineralized boulders were uncovered in the S½ of lot 13, concession XI. The boulders consist of silicified and sheared basalt. Weak pyrite and traces of arsenopyrite were observed with silicification. A sample of the best mineralization only showed 327 ppb (Figure 7).

Gold

Assay results have shown that there is a direct relationship between gold and arsenopyrite mineralization in silicified shear zones. The shear zones occur in schists and they may be related to larger, regional structures since the shears trend in the same direction as most lineaments in the area.

Gold has also been found in quartz veins and shears in diorites of the Lingham Lake Complex. Again, arsenopyrite is the most abundant sulphide. It is not sure whether the showings are related to a larger, regional structure but their locations to topographic lineaments suggest that it is possible.

As for the gold occurrences already mentioned (see: "Arsenopyrite"), one other occurrence was found that may be of some interest.

Lot 19, concession XVI

On the south side of the road in lot 19, concession XVI,

$N\frac{1}{2}$, there is a road cut through outcrop and till (Figure 8). A sample was taken of a seam of massive pyrite in amphibolitized mafic metavolcanic rock. The seam is up to 5 cm wide. Assays of the pyrite showed 1200 ppb gold. An examination of the site revealed that the sample was taken in a very large boulder.

Metamorphism

Within the map area the grade of metamorphism increases from east to west across the mafic metavolcanic belt. Along the east side of the belt the mafic metavolcanics have reached the high greenschist facies. In the middle regions, the metamorphism is between the high greenschist facies and the low amphibolite facies. Adjacent to the Lingham Lake Complex the mafic metavolcanics have reached the low to mid amphibolite facies.

Structure

Within the map area there are numerous lineaments that are easily distingishable on air photos. These lineaments, both long and short coincide with structural feathers in rocks. From the air photos there are two prominent directions of lineaments: a northwest system and a northeast system. The lineaments are probably faults.

The northwest system of lineaments is the most dominate trend. This direction coincides with observed structural feathers such as: 1) shear zones, 2) scarps, 3) general trend of geology, 4) early quartz veins.

Shear zones found along the Black River coincide with the northwest trend. It is believed that the river follows a large regional shear zone. The shear zone found in lot 14, concessions XII and XIII may possibly be a splay of the "Black River shear zone". East of the river a northwest trending scarp separates the northwest trend of geology west of the scarp and the northeast geological trend east of the scarp. This scarp also separates metamorphic terrains where low grade metamorphism occurs east of the scarp and higher grade metamorphism occurs to the west. The scarp may be a regional fault (Map 1) with vertical to subvertical movement.

The northeast system of lineaments is not as frequent as the northwest system. The northeast system is seen to offset some of the northwest lineaments and it is probable that the northeast system is younger. The displacement is variable in intensity between a few inches to hundreds of metres. The structures observed in rocks that coincide with this direction are: 1) offset of schists and mafic metavolcanic rocks, 2) offset or breaks of older quartz veins, 3) a weak foliation to the northeast superimposed on northwest trending schists, 4) fractures filled with quartz veins, 5) general trend of geology between the Canniff Lake pluton and the granite batholith occupying the northeast corner of Grimsthorpe Township.

VLF Prospecting

A VLF instrument was used to aid in finding sulphide mineralization and structures during the regional prospecting traverses. Conductors located were prospected in efforts to try and identify the cause of the anomalies. The location of any conductors found are plotted as black triangles and the apparent VLF response recorded on Map 1 and on the individual lot and concession maps.

Almost all the conductors lie west of the northwest trending scarp located east of the Black River. Many of these conductors occur along the river and may represent sulphide mineralization and shearing associated with the Black River shear zone. Most of the gold bearing shear zones found in this area were located with a VLF unit.

Recommended Areas To Prospect

In the mafic metavolcanics east of the Lingham Lake Complex the majority of time was spent east of the Lingham Lake Road. Very few traverses were made west of the road and into areas of the metamorphic aureole surrounding the complex. In these regions there are many lineaments belonging to the northwest system of faults. These lineaments may prove to be suitable exploration targets.

Along the Black River is another area suggested for prospecting. So far, the discovery of silicious and mineralized shear zones along the river have proved the this area has been a favorable conduit for gold bearing solutions.

The occurrences of gold within the central regions of the Lingham Lake Complex are of interest. These occurrences may be related to a regional structure not yet recognized in the area. This region has proved to be the most difficult area to prospect because it is remote and large areas are flooded and covered by swamp.

III. DESCRIPTIONS, RESULTS, AND LOCATIONS OF ROCKS SAMPLES

Logistics

During regional prospecting of Grimsthorpe Township and in isolated areas of Tudor Township a total of 96 rock samples were taken of various mineral horizons and structures encountered. The samples were shipped to Barringer Laboratories in Mississauga, Ontario.

At the lab, the samples were processed by pulverizing the rock with a jaw crusher and then cone crushed to -10 mesh. From this, a 300 gm split was crushed to -100 mesh. For analysis 0.5 gm were analyzed for gold by fire assay-atomic absorption methods. For 6 of these samples 0.5 gm of -100 mesh fraction had 30 element analysis preformed using the Inductively Coupled Argon Plasma (ICAP) method. All samples were analysed for gold.

Descriptions, results and locations of the rock samples are as follows:

Sample No.	Location	Sample Type	Width	Rock Type	Mineralization	Assay (ppb Au)
77476	Tudor Twp. L. 1, C. XI figure 9	grab	1.5 m	sheared diorite	Tr. pyrite	5
77477	Tudor Twp. L. 1. C. XI figure 9	grab	0.5 m	quartz + carbonate	Tr. pyrite	5
77478	Tudor Twp. L. 2, C. XII figure 10	grab	0.5 m	sheared + carbonate gabbro	Tr.-3% pyrite	5
77479	Tudor Twp. L. 2, C. XII figure 10	chips	0.5 m	quartz + carbonate	Tr.-5% pyrite	<3
77480	Tudor Twp. L. 5, C. XIII figure 11	grab	float	quartz	rusty Tr. pyrite	<3
77481	Tudor Twp. L. 5, C. XIII figure 11	grab	2.0 m	silicous magnetite iron form.	Tr.-10% magnetite	<3 30 eleme[nt] ICAP
77482	Grimsthorpe T. L. 17, C. XVI figure 8	grab	0.1 m	basalt	massive pyrite	1200
77483	Grimsthorpe T. L. 21, C. XIV figure 12	grab	float	quartz	Tr.-3% pyrite	<3
77484	Grimsthorpe T. L. 23, C. XIII figure 13	grab	1.0 m	basalt?	Tr.-3% pyrite	<3 30 eleme[nt] ICAP
77485	Grimsthorpe T. L. 17, C. XVI figure 14	grab	1.5 m	sheared mafic schist	10-30% pyrite	105
77486	Grimsthorpe T. L. 17, C. XVI figure 14	grab	float	quartz	Tr.-15% pyrite	250

Sample No.	Location	Sample Type	Width	Rock Type	Mineralization	Assay (ppb Au)
77487	Grimsthorpe T. L. 17, C. XVI figure 14	grab	float	quartz + carbonate	5-15% pyrite	130
77488	Grimsthorpe T. L. 12, C. XII figure 15	grab	0.4 m	quartz in mafic schists	gossaned	11
77489	Grimsthorpe T. L. 12, C. XII figure 15	grab	2.5 m	mafic schists, sheared	10-30% pyrite	61
77490	Grimsthorpe T. L. 13, C. XIII figure 15	grab	1.0 m	mafic schist	Tr.-20% pyrite Tr. pyrrhotite	20
77491	Grimsthorpe T. L. 18, C. XVI figure 8	grab	0.1 m	carbonate vein in shear	Tr. pyrite Tr. chalcopyrite	570
77492	Grimsthorpe T. L. 18, C. XVI figure 8	chips	0.3 m	quartz carbonate vein	gossaned Tr. hematite	16
77493	Grimsthorpe T. L. 14, C. XII Map 2	grab	0.1 m	quartz vein in basalt	gossaned	10
77494	Grimsthorpe T. L. 14, C. XII Map 2	grab	float	sheared + silicous schist	10-40% arsenopy. Tr.-5% pyrite	6780
77495	Grimsthorpe T. L. 17, C. XVI figure 14	grab	0.2 m	quartz in sheared mafics	gossaned Tr. pyrite	35
77496	Grimsthorpe T. L. 16, C. XIII figure 16	grab	float	quartz	Tr. chalcopyrite Tr. pyrite	19
77497	Grimsthorpe T. L. 21, C. XV figure 17	grab	0.2 m	quartz vein in fracture	Tr. pyrite	24
77498	Grimsthorpe T. L. 21, C. XV figure 17	grab	0.3 m	quartz vein in fracture	Tr. pyrite	16
77499	Grimsthorpe T. L. 21, C. XVI figure 18	grab	1.0 m	quartz vein in Fe-carb.	Tr.-5% pyrite	10
77500	Grimsthorpe T. L. 16, C. XVI figure 19	grab	0.4 m	quartz in mafic schist	gossaned	74
78051	Grimsthorpe T. L. 11, C. XI figure 20	grab	0.1 m	quartz + carbonate vein	Tr. pyrite chloritized	13
78052	Grimsthorpe T. L. 12, C. XI figure 20	grab	1.0 m	quartz + carbonate stringers	Tr. pyrite	6
78053	Grimsthorpe T. L. 12, C. XI figure 20	grab	3.0 m	calcite marble?	1% pyrite	8
78054	Grimsthorpe T. L. 12, C. XI figure 20	grab	float	quartz + calcite vein	Tr.-1% pyrite	7
78055	Grimsthorpe T. L. 17, C. XIV figure 21	grab	float	quartz	40% pyrite	80

Sample No.	Location	Sample Type	Width	Rock Type	Mineralization	Assay (ppb Au)
78056	Grimsthorpe T. L. 11, C. X figure 22	grab	float	quartz + mafic schist	5-10% pyrite Tr.-1% chalcopy. Tr. pyrrhotite	8
78057	Grimsthorpe T. L. 17, C. XVI figure 14	grab	0.2 m	quartz + Fe-carb. vein	massive tourmaline	17
78058	Grimsthorpe T. L. 17, C. XVI figure 14	grab	float	quartz	10-15% pyrite 1% chalcopyrite	16
78059	Grimsthorpe T. L. 17, C. XVI figure 14	grab	float	quartz	5% chalcopyrite	62
78060	Grimsthorpe T. L. 18, C. XVII figure 23	grab	float	quartz	Tr.-3% pyrite	6
78061	Grimsthorpe T. L. 21, C. XVII figure 24	grab	0.3 m	quartz	Tr.-1% pyrite	7
78062	Grimsthorpe T. L. 21, C. XVI figure 24	grab	1.0 m	Fe-carb. seam in basalt	gossaned	9
78063	Grimsthorpe T. L. 22, C. XVI figure 24	grab	4.0 m	felsic	1-2% pyrite 1-3% magnetite	8
78064	Grimsthorpe T. L. 20, C. XVII figure 18	grab	0.4 m	quartz vein	Tr.-20% pyrite	3
78065	Grimsthorpe T. L. 18, C. XVI figure 8	grab	1.0 m	breccia, Fe-carb.	Tr. pyrite Tr.-1% chalcopyrite	160
78066	Grimsthorpe T. L. 19, C. XV figure 6	grab	float	quartz	Tr.-3% pyrite	5
78067	Grimsthorpe T. L. 19, C. XV figure 6	grab	2.0 m	sheared + silicous schist	5-10% pyrite Tr.-5% arsenopyrite	270 30 ELEMENT ICAP
78068	Grimsthorpe T. L. 19, C. XV figure 6	grab	1.5 m	sheared + silicous schist	5-10% pyrite 1-5% arsenopyrite	836 30 ELEMENT ICAP
78069	Grimsthorpe T. L. 21, C. XV figure 17	grab	0.3 m	quartz vein in basalt	Tr. pyrite	8
78070	Grimsthorpe T. L. 18, C. XV figure 21	grab	0.3 m	quartz in mafic schist	5% pyrite	65
78071	Grimsthorpe T. L. 18, C.XV figure 21	grab	0.1 m	quartz vein in basalt	Tr. pyrite	5
78072	Grimsthorpe T. L. 18, C. XV figure 21	grab	0.1 m	quartz vein in shear	Tr.-20% pyrite	7
78073	Grimsthorpe T. L. 14, C. XII Map 2	grab	1.0 m	quartz + silicous schist	10% pyrite	885 30 ELEMENT ICAP
78074	Grimsthorpe T. L. 14, C. XII Map 2	grab	2.0 m	quartz + silicous schist	5-15% pyrite	970 30 ELEMENT ICAP

Sample No.	Location	Sample Type	Width	Rock Type	Mineralization	Assay (ppb Au)
78075	Grimsthorpe T. L. 13, C. XI figure 7	grab	float	sheared + silicous basalt	5-30% pyrite Tr. arsenopyrite	527
78076	Grimsthorpe T. L. 13, C. XII Map 2	grab	float	quartz	1-10% magnetite	6
78077	Grimsthorpe T. L. 13, C. XII Map 2	grab	2.5 m	sheared + silicous schist	1-20% pyrite	14
78078	Grimsthorpe T. L. 13, C. XII Map 2	grab	1.5 m	sheared mafic	Tr.-10% pyrite	10
78079	Grimsthorpe T. L. 14, C. XII Map 2	grab	2.0 m	sheared + silicous schist	1-20% pyrite	285
78080	Grimsthorpe T. L. 14, C. XII Map 2	chips	0.4 m	sheared + silicous schist	1-5% pyrite	518
78081	Grimsthorpe T. L. 19, C. XV figure 6	chips	1.0 m	sheared + silicous schist	5% pyrite	6
78082	Grimsthorpe T. L. 19, C. XV figure 6	chips	1.0 m	sheared + silicous schist	Tr.-5% arsenopy.	530
78083	Grimsthorpe T. L. 19, C. XV figure 6	chips	0.1 m	quartz vein in shear	5-20% arsenopyrite 5% pyrite	847
78084	Grimsthorpe T. L. 20, C. XV figure 6	grab	0.2 m	sheared mafic schist	1-5% pyrite	136
78085	Grimsthorpe T. L. 20, C. XV figure 6	chips	0.2 m	sheared + silicous schist	1-5% pyrite Tr.-1% arsenopy.	450
78086	Grimsthorpe T. L. 20, C. XV figure 6	chips	0.3 m	sheared + silicous schist	1-5% pyrite Tr.-1% arsenopy.	495
78087	Grimsthorpe T. L. 14, C. XII Map 2	rep.	float	quartz + silicous schist	1-5% pyrite Tr.-3% arsenopy.	3200
78089	Grimsthorpe T. L. 14, C. XII Map 2	grab	float	sheared + silicous schist	1-5% pyrite Tr.-3% arsenopy.	3910
78090	Grimsthorpe T. L. 14, C. XII Map 2	grab	1.2 m	quartz	1-10% magnetite	11
78091	Grimsthorpe T. L. 13, C. XII Map 2	grab	1.0 m	sheared mafic schist	1-5% pyrite Tr. pyrrhotite Tr. arsenopyrite	45
78092	Grimsthorpe T. L. 14, C. XII Map 2	grab	float	sheared + silicous schist	Tr.-5% pyrite Tr.-1% arsenopy.	21,500
78093	Grimsthorpe T. L. 14, C. XII Map 2	grab	float	quartz	gossaned	29
78094	Grimsthorpe T. L. 14, C. XII Map 2	grab	2.0 m	sheared + silicous schist	1-10% pyrite Tr. arsenopyrite	203

Sample No.	Location	Sample Type	Width	Rock Type	Mineralizacion	Assay (ppb Au)
78094	Grimsthorpe T. L. 14, C. XII Map 2	grab	1.0 m	silicous mafic	1-3% pyrite Tr.-2% pyrrhotite Tr. arsenopyrite	7
78095	Grimsthorpe T. L. 14, C. XII Map 2	grab	float	Silicous, sheared schist?	Tr.-5% pyrite Tr.-3% arsenopy. Tr.-1% pyrrhotite	1800
78096	Grimsthorpe T. L. 14, C. XII Map 2	chips	3.0 m	marble		2
78101	Grimsthorpe T. L. 14, C. XII Map 2	chips	0.2 m	quartz + sheared schist	1-5% pyrite Tr.-1% arsenopy.	1880
78102	Grimsthorpe T. L. 14, C.XIII Map 2	grab	float	sheared + silicous schist	5-20% pyrite Tr.-3% arsenopy.	1700
78103	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	quartz + sheared schist	5-20% pyrite Tr.-3% arsenopy.	1730
78104	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	sheared + silicous schist	Tr.-5% pyrite Tr.-1% arsenopy.	870
78105	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	sheared + silicous schist	1-10% arsenopy. 1-5% pyrite	11,500
78106	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	sheared + silicous schist	1-5% pyrite 1-3% arsenopyrite	2410
78107	Grimsthorpe T. L. 18, C. XV figure 21	grab	float	quartz in Fe-carbon. shear	Tr.-5% pyrite Tr.-1% chalcopyrite	37
78108	Grimsthorpe T. L. 18, C. XV figure 21	grab	float	quartz in Fe-carb. shear	Tr. pyrite	9
78109	Grimsthorpe T. L. 15, C. XIII figure 16	grab	float	quartz	gossaned Tr. pyrite	14
78110	Grimsthorpe T. L. 15, C.XIII figure 16	grab	float	quartz	gossaned	5
78111	Grimsthorpe T. L. 15, C. XIII figure 16	grab	float	quartz	Tr.-5% pyrite	7
78112	Grimsthorpe T. L. 29, C. X figure 4	grab	0.3 m	quartz vein in diorite	5-50% arsenopy. Tr. chalcopyrite	7380
78113	Grimsthorpe T. L. 29, C. X figure 4	grab	0.3 m	quartz	5% arsenopyrite 5% pyrite 1% cpy, Tr Cu	68
78114	Grimsthorpe T. L. 29, C. X figure 4	grab	0.3 m	quartz	Tr.-2% arsenopy Tr.-2% pyrite Tr. chalcopyrite	12,500
78115	Grimsthorpe T. L. 14, C.XIII Map 2	grab	1.2 m	sheared + siliccous schist	Tr.-5% pyrite Tr. pyrrhotite	37
78116	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	quartz	Tr.-5% pyrite Tr.-5% arsenopy.	5970

Sample No.	Location	Sample Type	Width	Rock Type	Mineralization	Assay (ppb Au)
78117	Grimsthorpe T. L. 14, C. XIII Map 2	grab	float	Sheared + silicous schist	1-5% pyrite 1-5% arsenopyrite Tr. pyrrhotite	6020
78118	Grimsthorpe T. L. 14. C. XIII Map 2	grab	float	sheared + silicous schist	Tr.-5% arsenopy.	124
78119	Grimsthorpe T. L. 14, C. XIII Map 2	grab	1.0 m	sheared + silicous schist	Tr.-5% pyrite	26
78120	Grimsthorpe T. L. 33, C. XI figure 3	grab	0.4 m	quartz vein in diorite	Tr.-5% arsenopy. Tr. pyrite	196
78121	Grimsthorpe T. L. 33, C. XI figure 3	chips	0.2 m	sheared diorite	90% arsenopyrite	2130
78122	Grimsthorpe T. L. 11, C. X figure 22	rep.	2.5 m	quartz + mafic schist	5-10% pyrite	5
78123	Grimsthorpe T. L. 20, C. XVI figure 5	grab	float	quartz	1-50% arsenopy. Tr. pyrite	5120
78124	Grimsthorpe T. L. 20, C. XVI figure 5	grab	0.3 m	quartz vein in schist	Tr.-5% pyrite	69
78125	Grimsthorpe T. L. 21, L. XVI figure 3	grab	float	sheared + silicous	Tr.-3% pyrite Tr.-3% arsenopy.	2010

Figures of Rock Sample Locations

The figures show and describe rock sample locations and surrounding geology for samples taken in Grimsthorpe and Tudor Townships.

LEGEND
(for figures 3-24)

6 FELSIC INTRUSIVES
- a granite
- b granite or apilite dykes

5 MAFIC INTRUSIVES
- a gabbro
- b diorite

4 FELSIC METAVOLCANICS

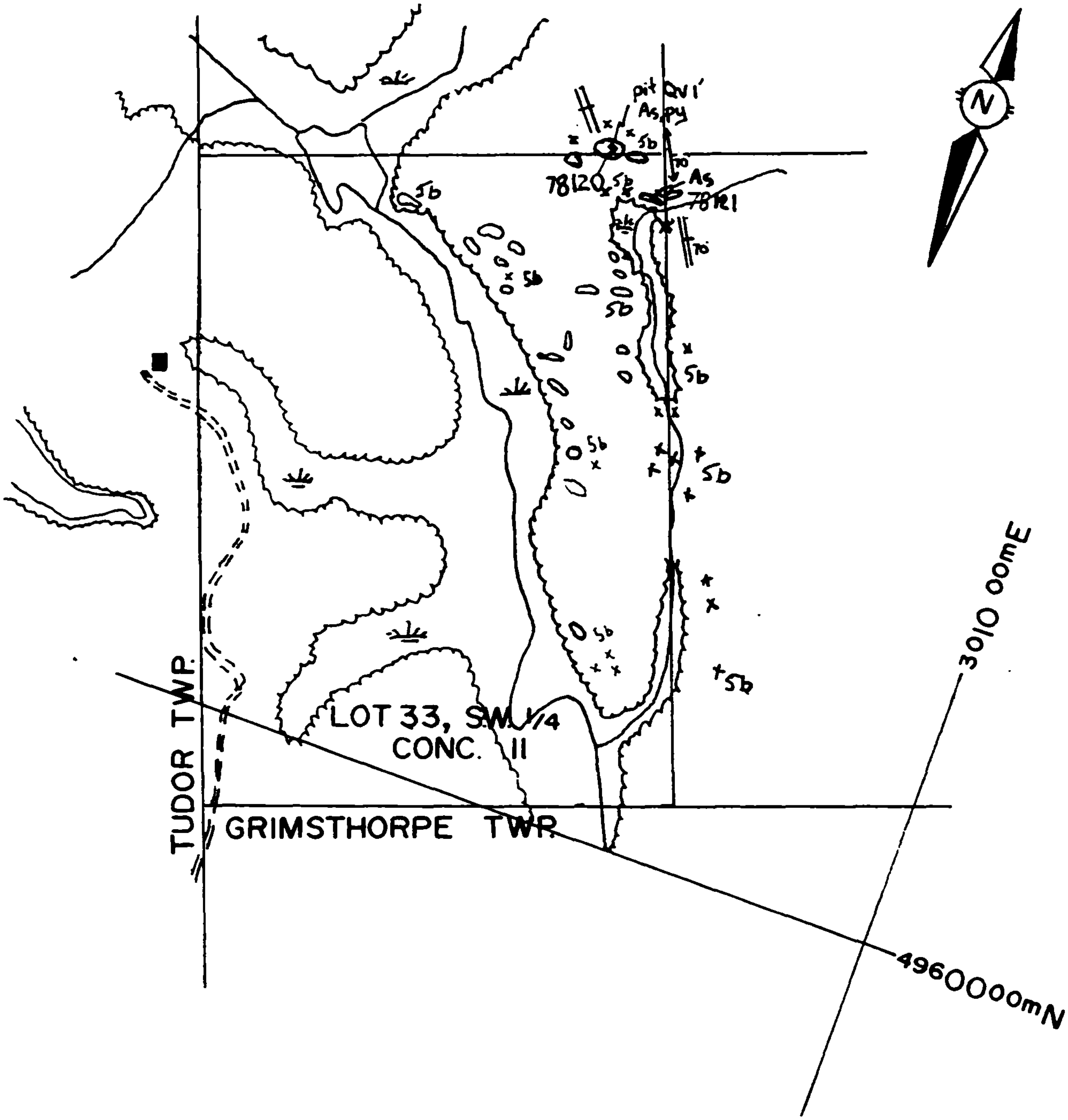
3 Fe- CARBONATED ROCK

2 SCHISTS
- a mafic schists
- b sedimentary schists

1 MAFIC METAVOLCANICS
- a basalt
- b amphibolitized mafic
- c agglomerate

SYMBOLS

	outcrop		road
	float		trail
	schistosity		cabin
	foliation		swamp
	strike & dip		clearing
	strike & dip of vein		VLF conductor
	contact	BD	beaver dam
	pit		lake or pond
py	pyrite	As	arsenopyrite
cpy	chalcopyrite	mag	magnetite
Qtz	quartz	QV	quartz vein
	scarp, hill top	78111	rock sample number


pit QV1'
As, py
78120
As
78121
Sb
LOT 33, S.W. 1/4
CONC. II
TUDOR TWP.
GRIMSTHORPE TWP.
3010 00mE
4960000mN
N

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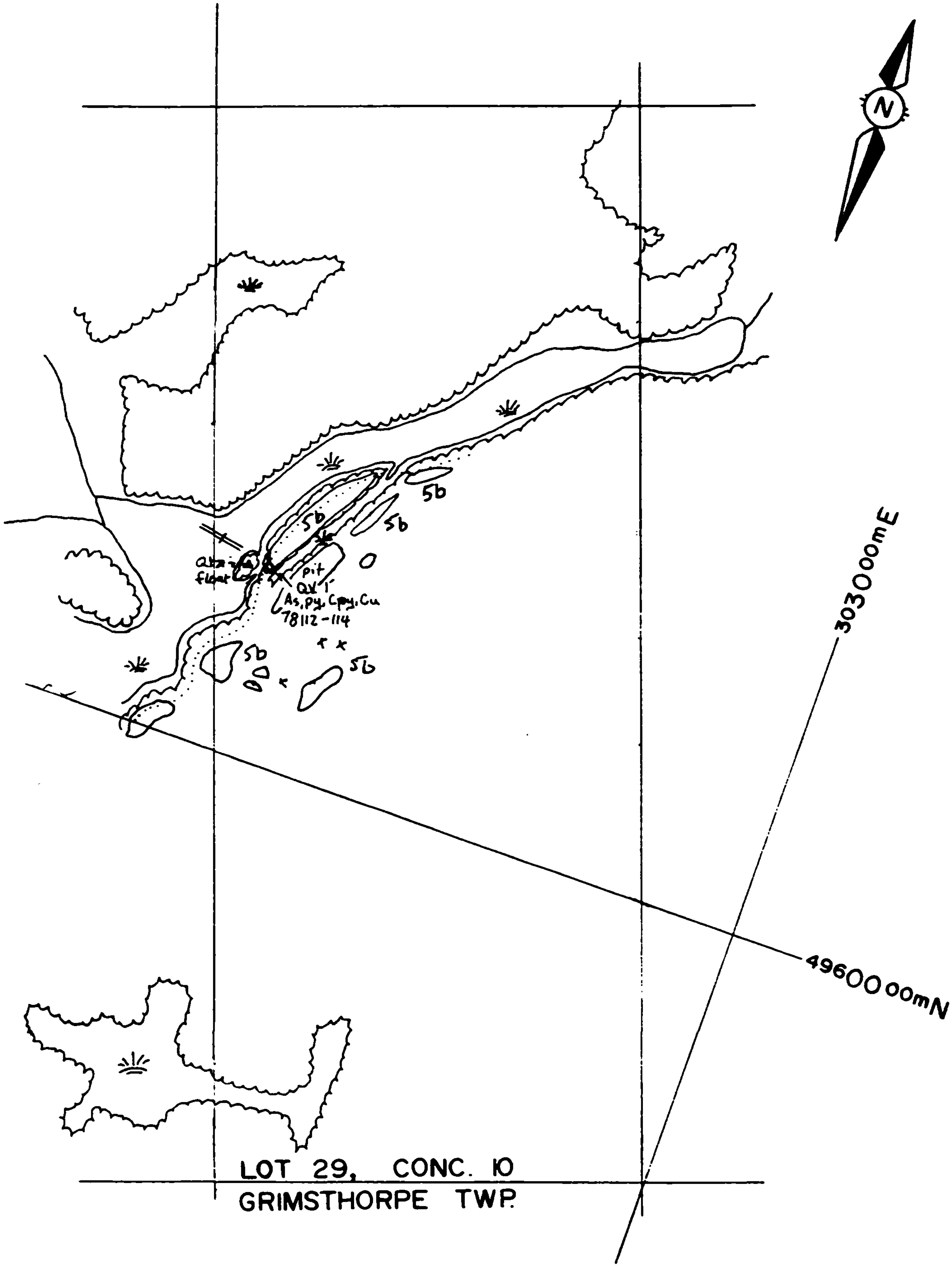
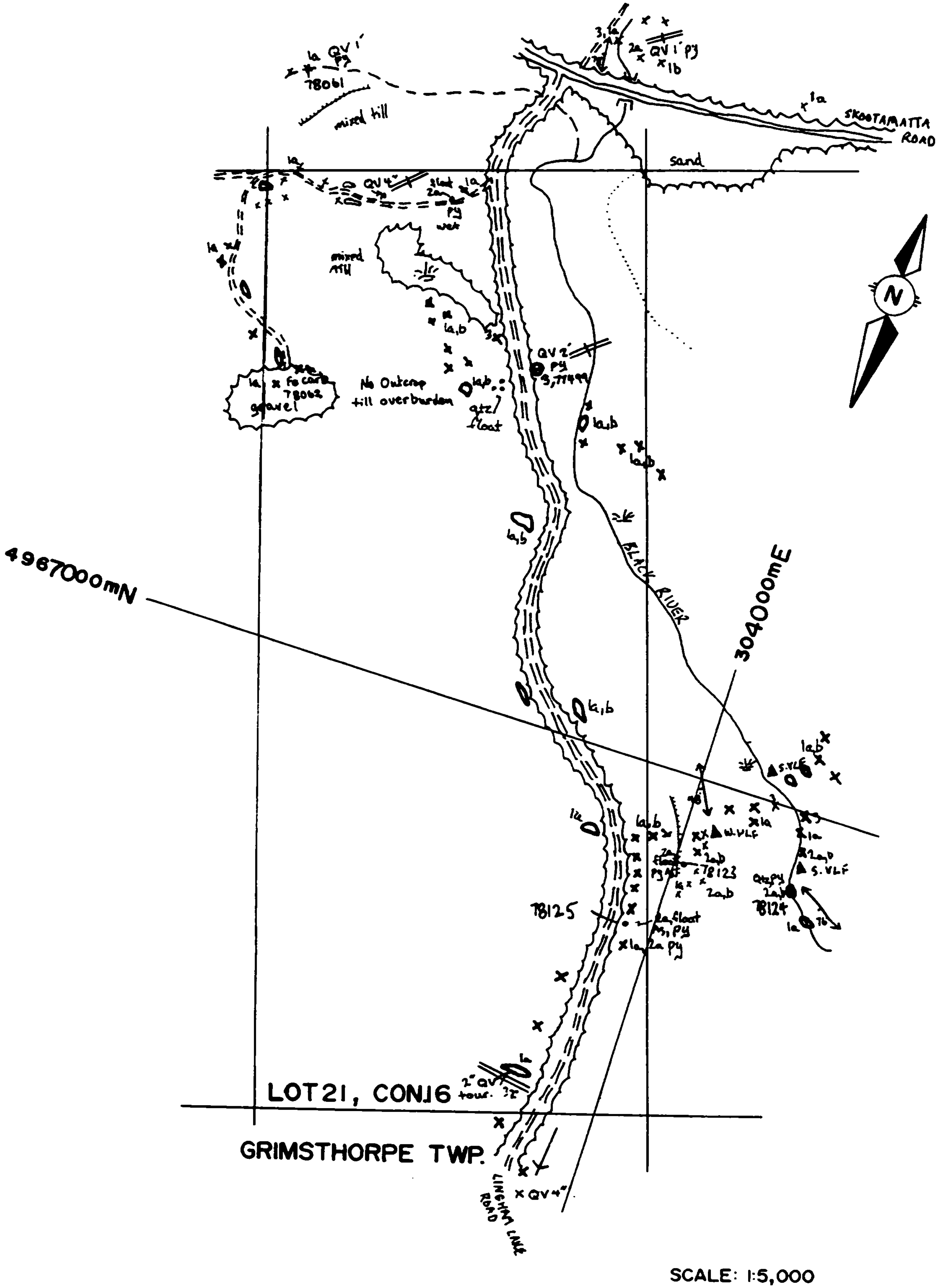
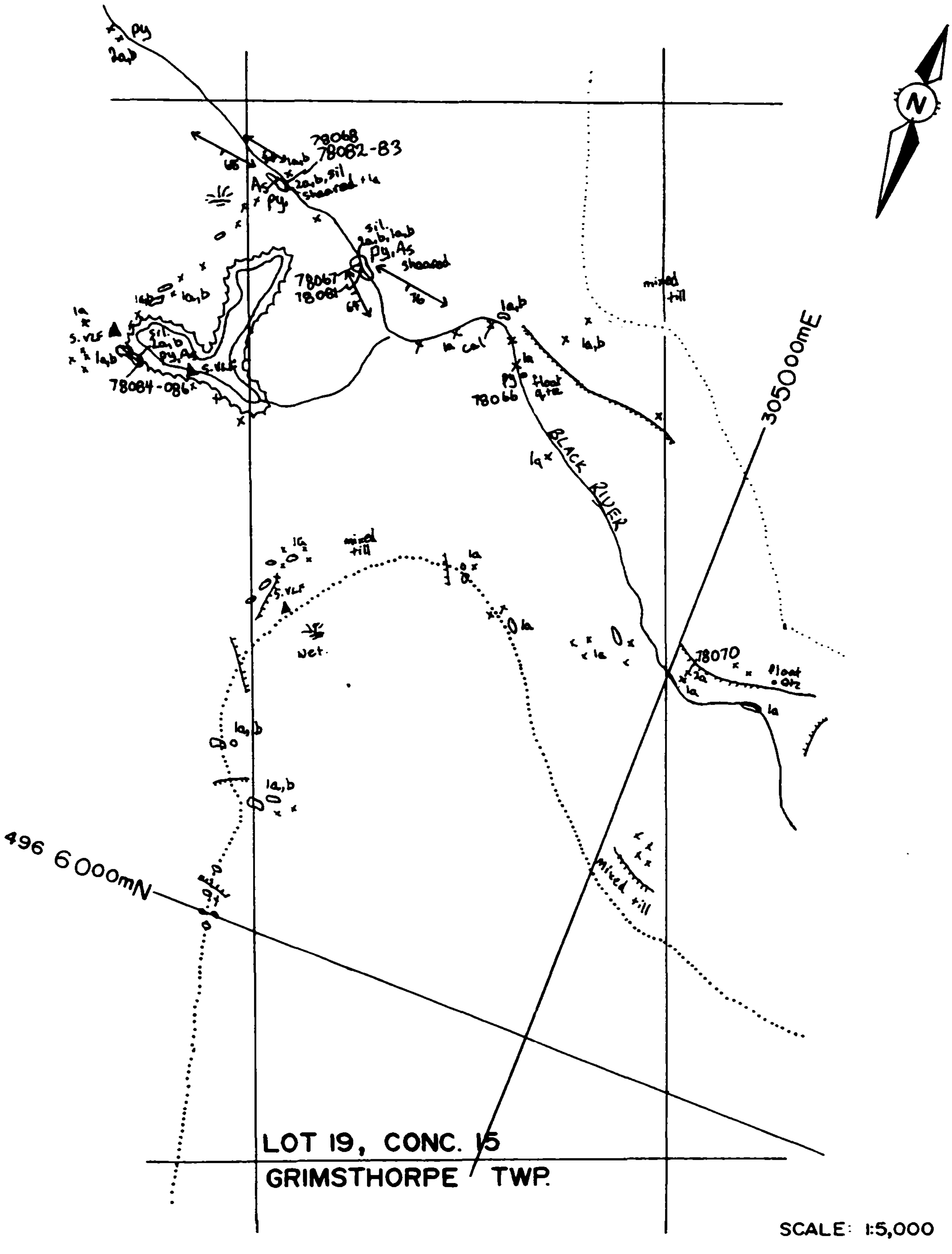

N
303000mE
4960000mN
5b
5b
5b
5b
5b
float
pit
QV 1'
As, py, Cpy, Cu
78112-114
LOT 29, CONC. 10
GRIMSTHORPE TWP.

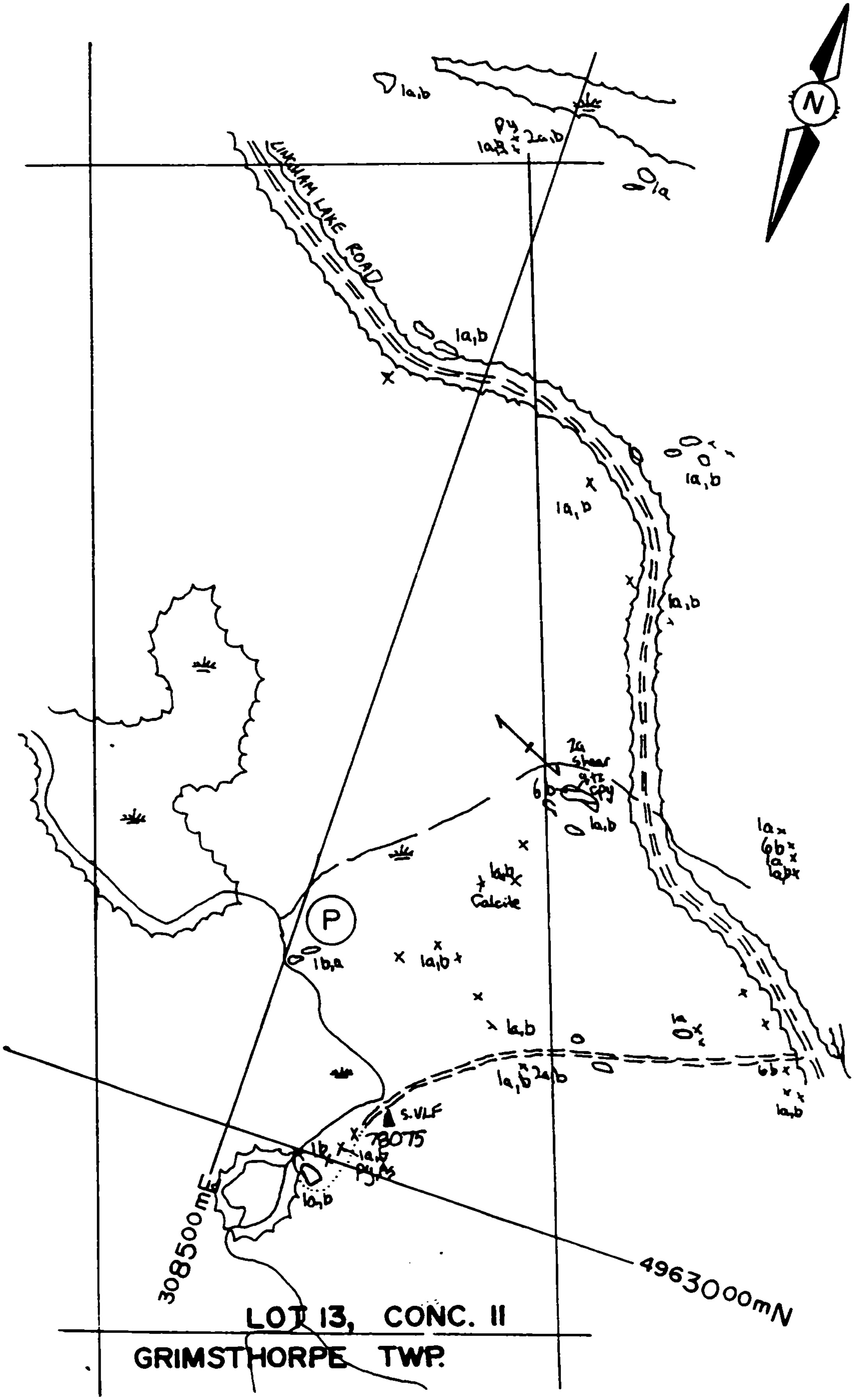
SCALE: 1:5,000

FIGURE 5


SKOOTAMATTA ROAD
sand
mixed till
78061
No Outcrop
till overburden
gravel
78062
qtz float
BLACK RIVER
4967000mN
304000mE
W.VLF
S.VLF
78123
78124
78125
LOT 21, CON 16
GRIMSTHORPE TWP.
LINGHAM LAKE ROAD
N
SCALE: 1:5,000

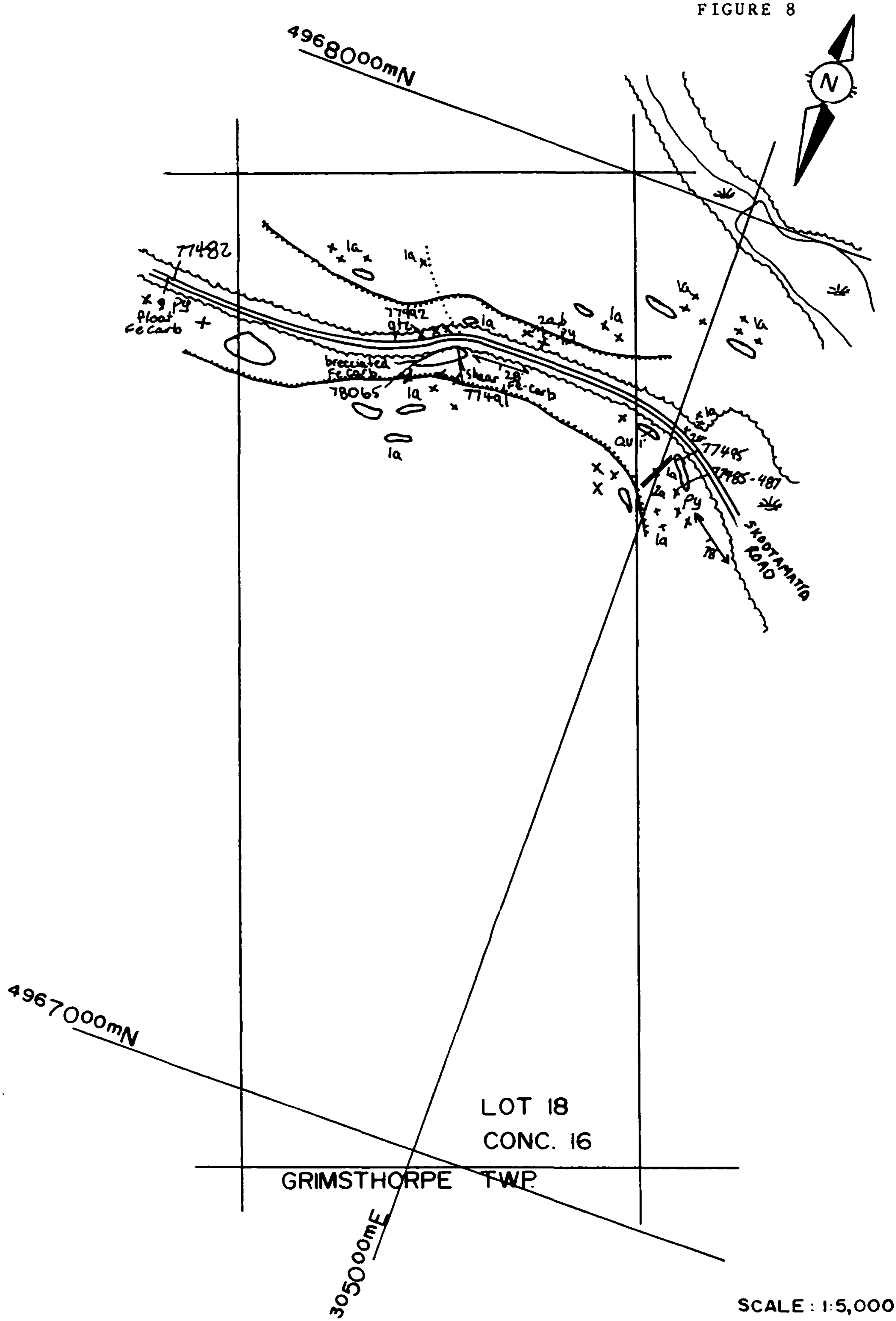


78068
78082-83
As
py
sil.
py, As
sheared
78067
78081
mixed till
305000mE
78084-086
78066
BLACK RIVER
mixed till
wet
78070
float qtz
496 6000mN
mixed till
LOT 19, CONC. 15
GRIMSTHORPE TWP.
SCALE: 1:5,000

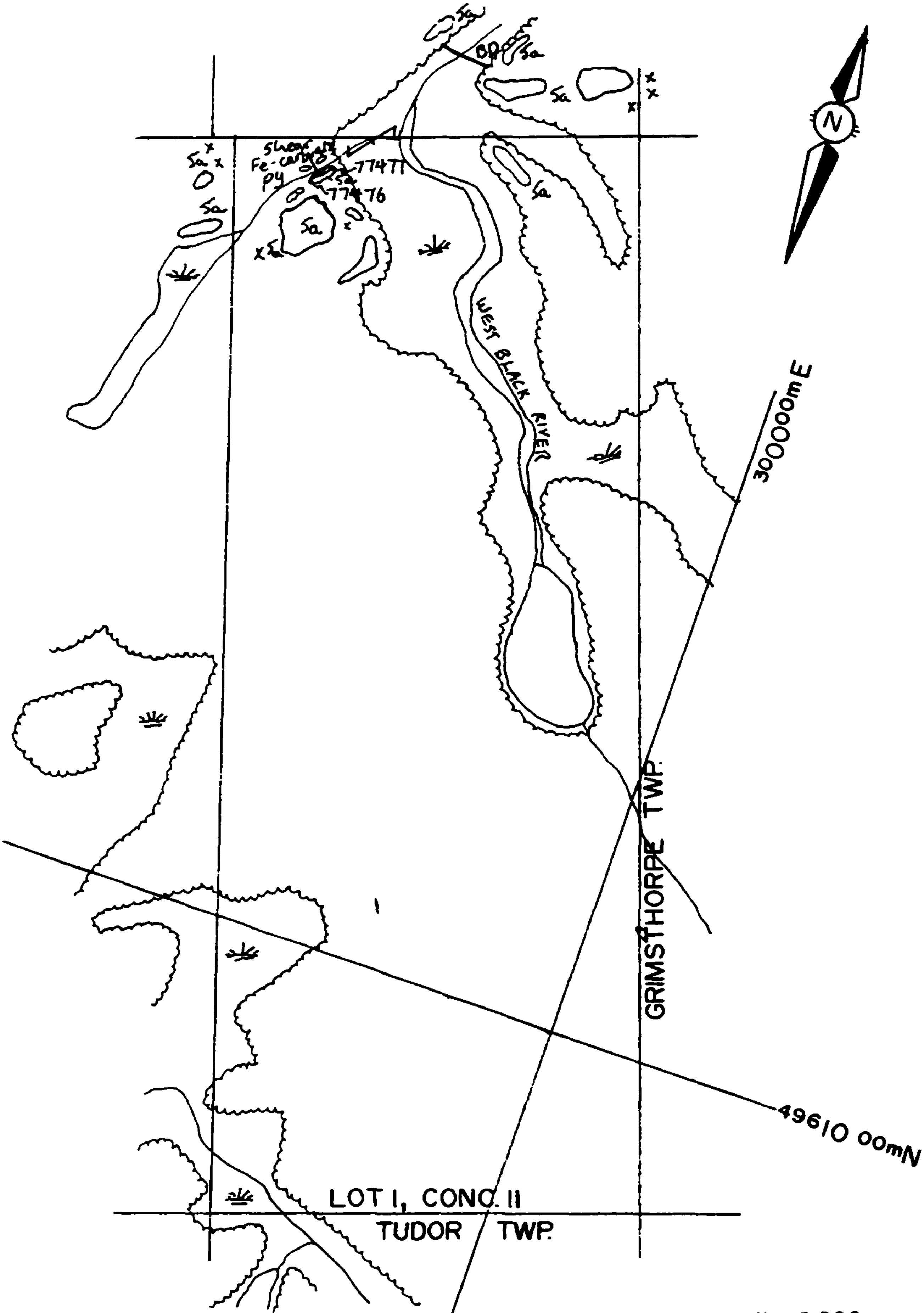

N
LINGHAM LAKE ROAD
la,b
py
la,b
2a,b
la
la,b
la,b
la,b
la,b
2a
shear
qtz
cpy
6b
la,b
la
6b
la
la,b
la,b
Calcite
P
lb,a
la,b
la,b
la
la,b
2a,b
6b
la,b
S.VLF
73075
lb
la,b
py,cs
la,b
308500mE
4963000mN
LOT 13, CONC. II
GRIMSTHORPE TWP.

SCALE: 1:5,000

FIGURE 8

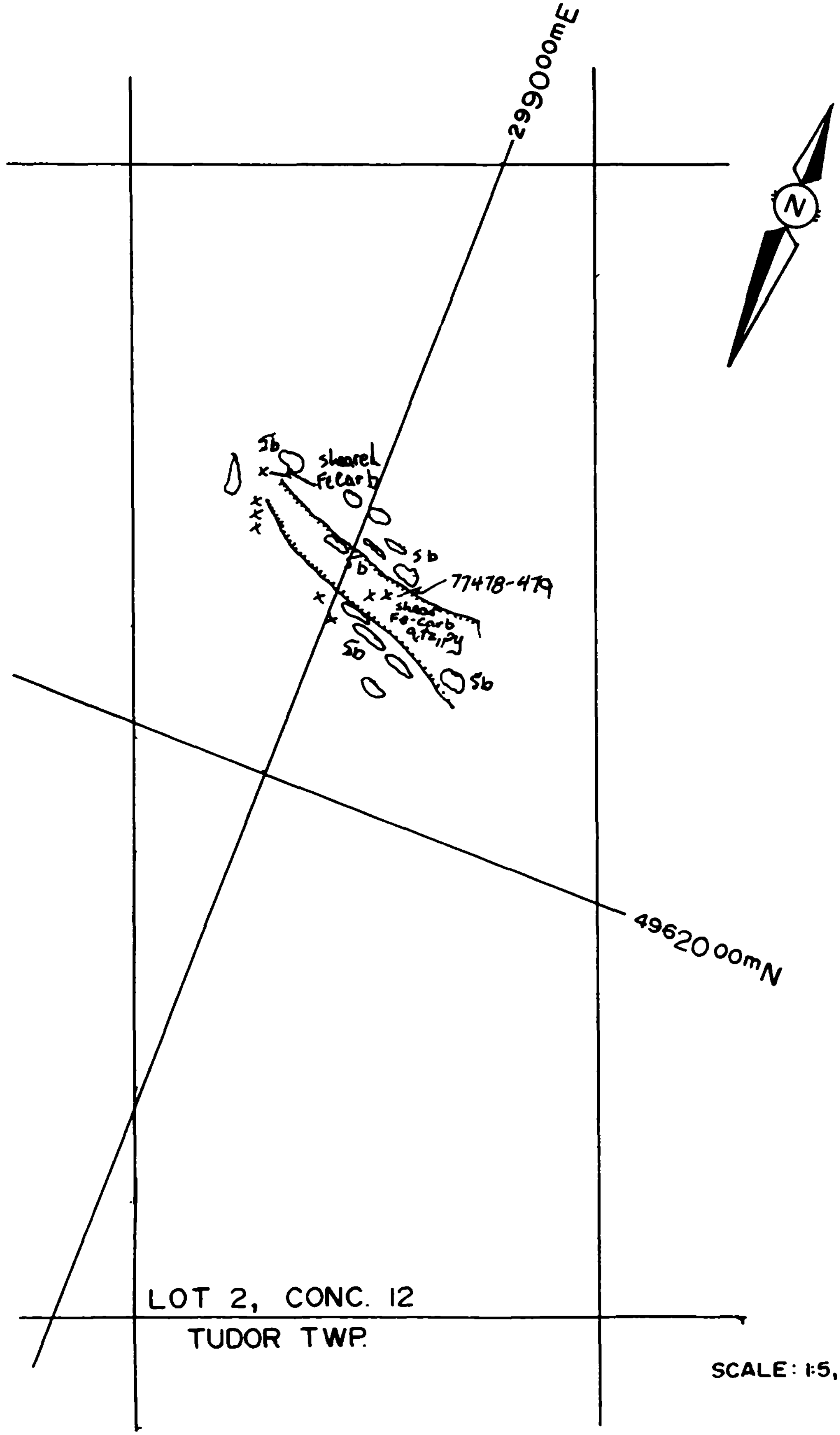


N
4968000mN
4967000mN
305000mE
77482
float
Fe carb
77492
qtz
brecciated
Fe carb
78065
shear
Fe-carb
77491
SKOOTAMATTA ROAD
LOT 18
CONC. 16
GRIMSTHORPE TWP.
SCALE: 1:5,000


N
WEST BLACK RIVER
300000mE
4961000mN
GRIMSTHORPE TWP.
LOT 1, CONC. II
TUDOR TWP.
77477
77476
Py
Sa

SCALE: 1:5,000

FIGURE 10



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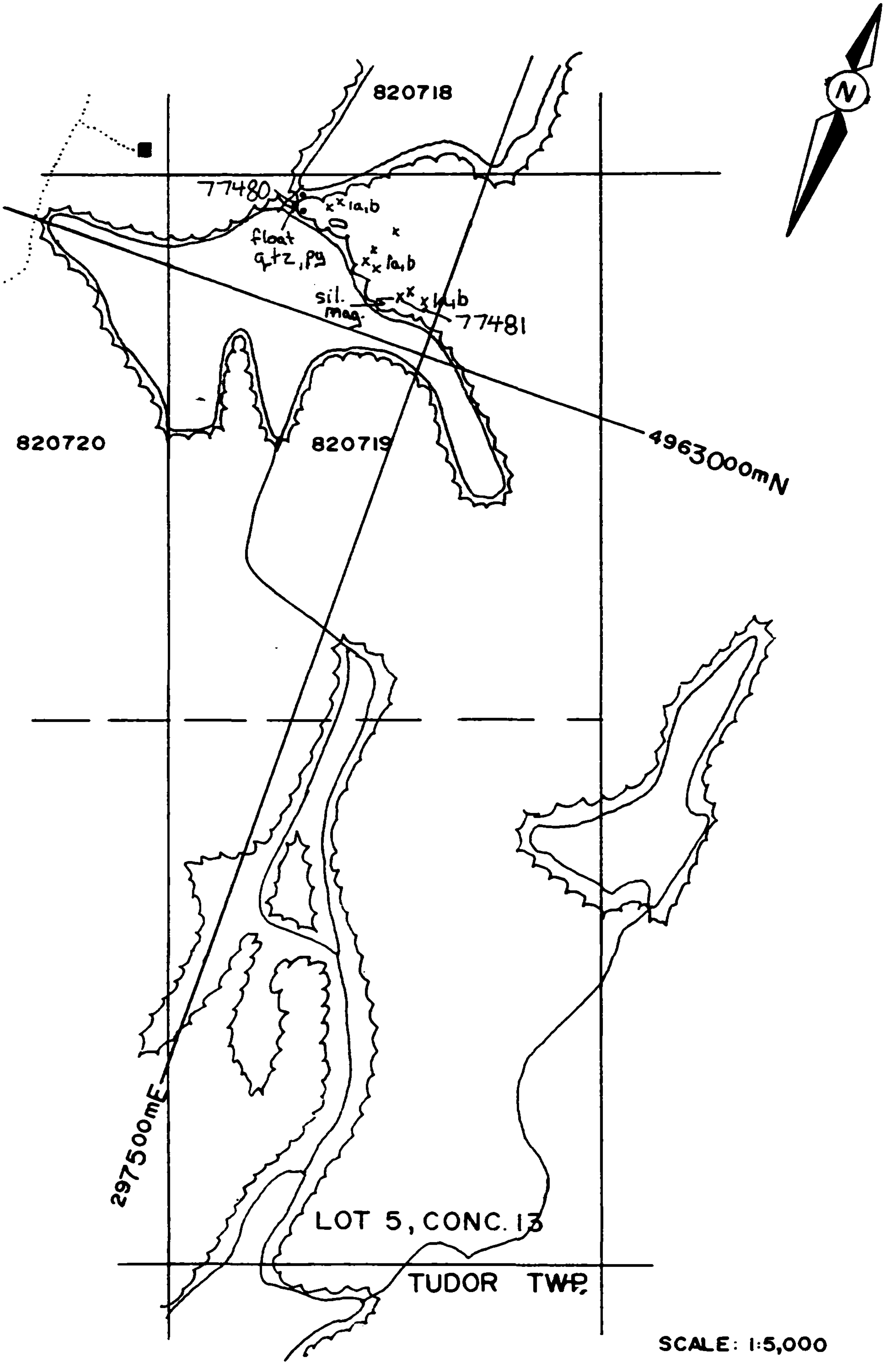
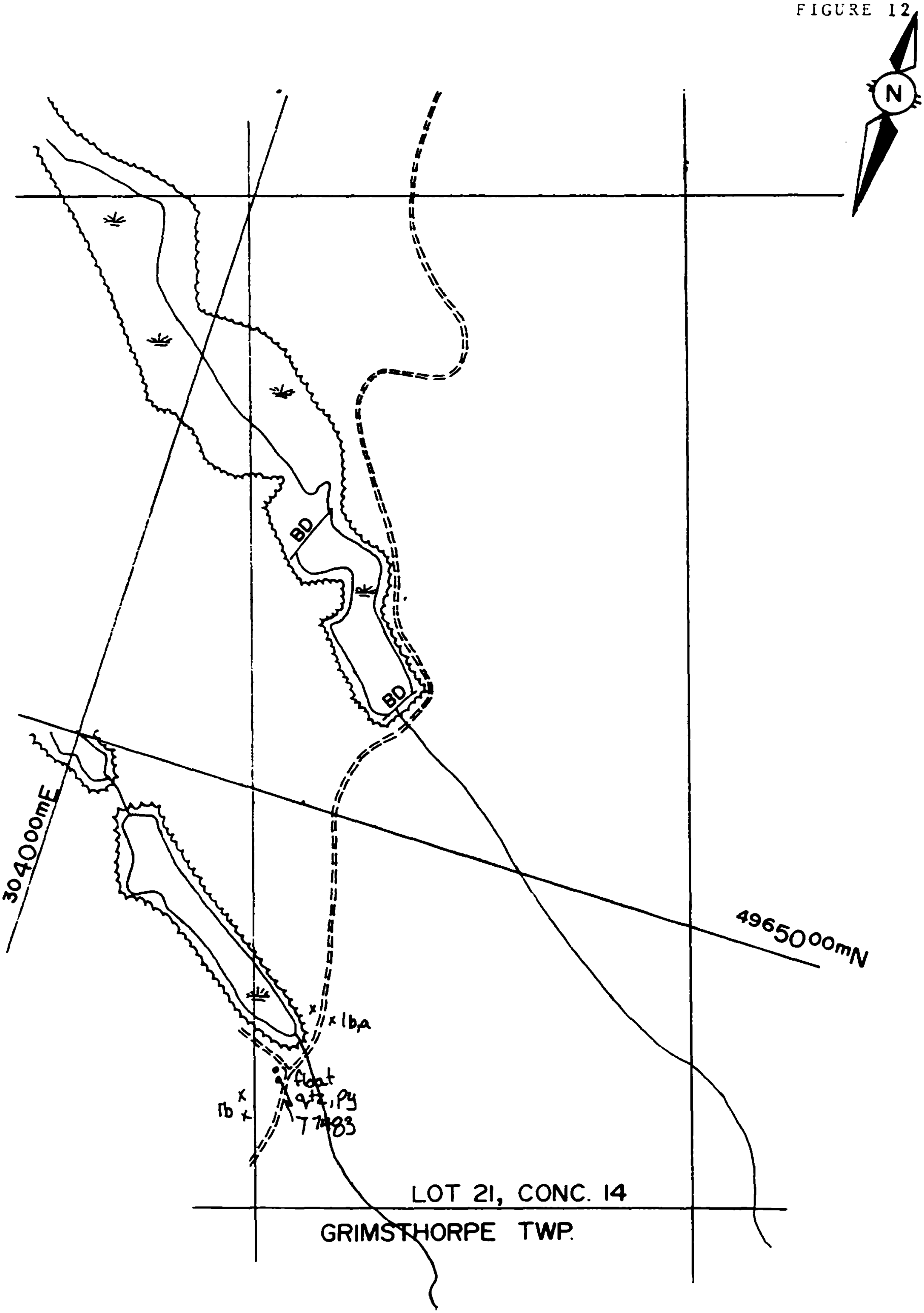
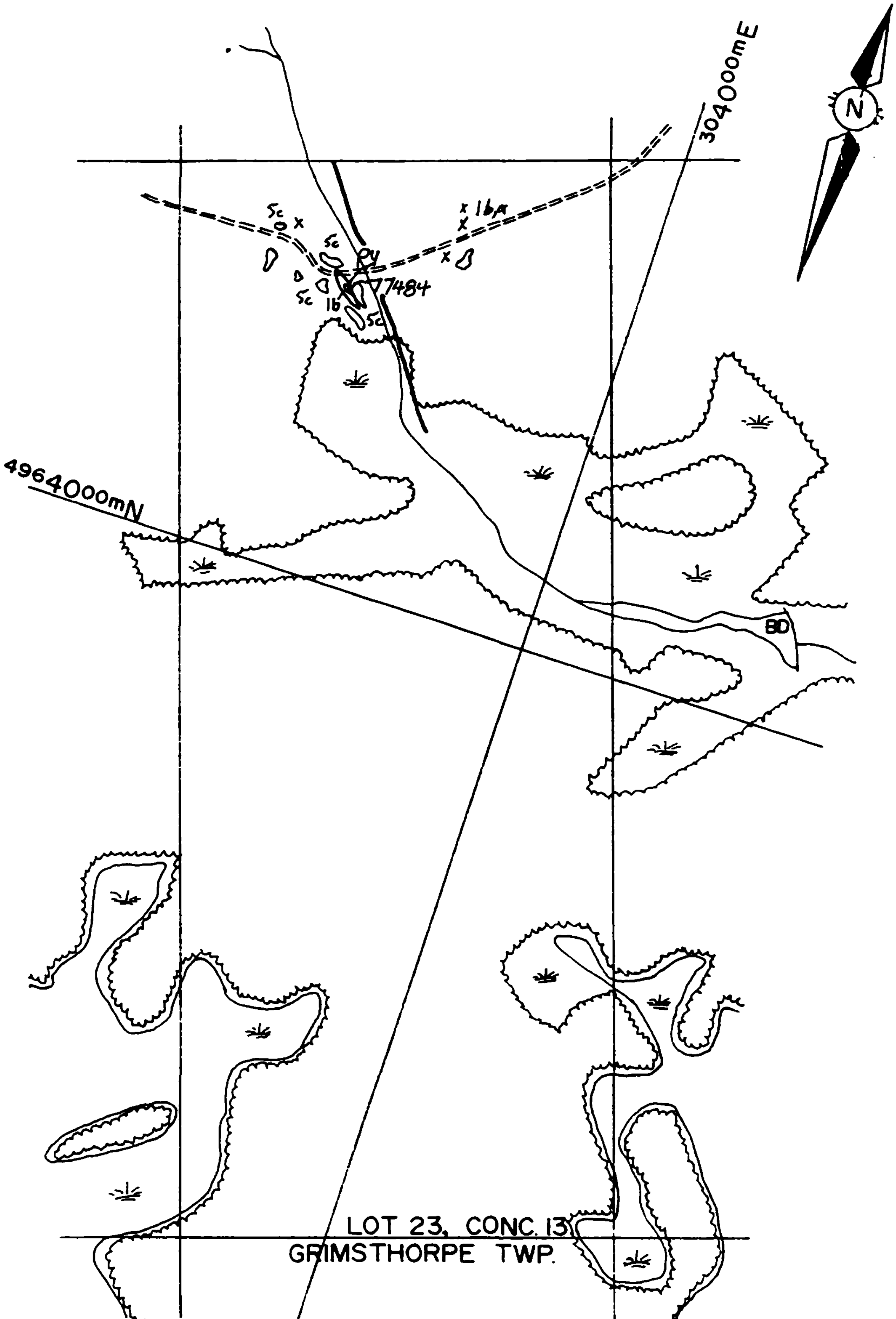

820718
77480
x^x 1a,b
float
qtz, py
x 1a,b
sil.
mag.
x 1a,b
77481
820720
820719
4963000mN
297500mE
LOT 5, CONC. 13
TUDOR TWP.
N

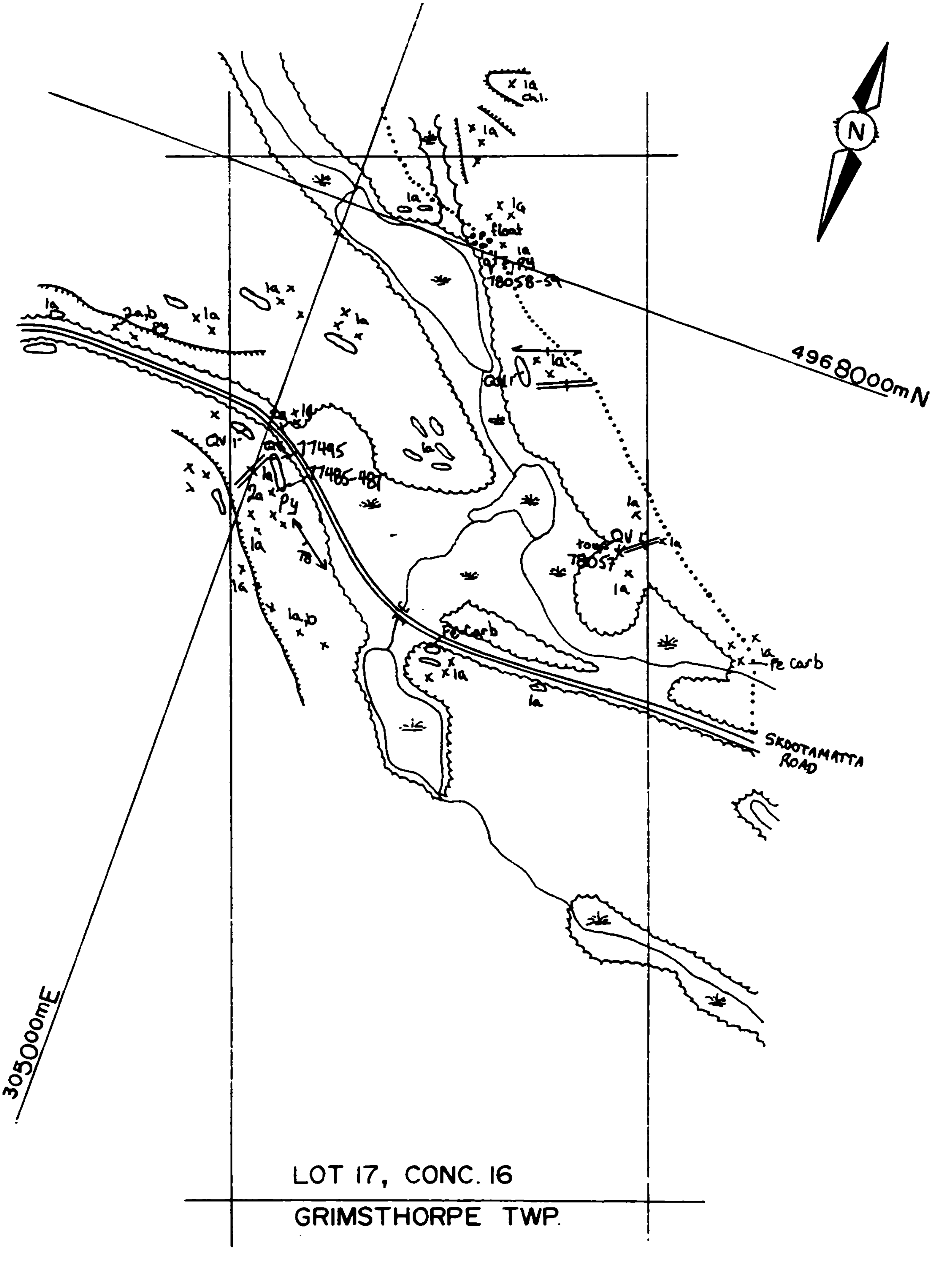
SCALE: 1:5,000


N
BD
BD
304000mE
4965000mN
x lb,a
float
qtz, py
T7483
lb
LOT 21, CONC. 14
GRIMSTHORPE TWP.

SCALE: 1:5,000

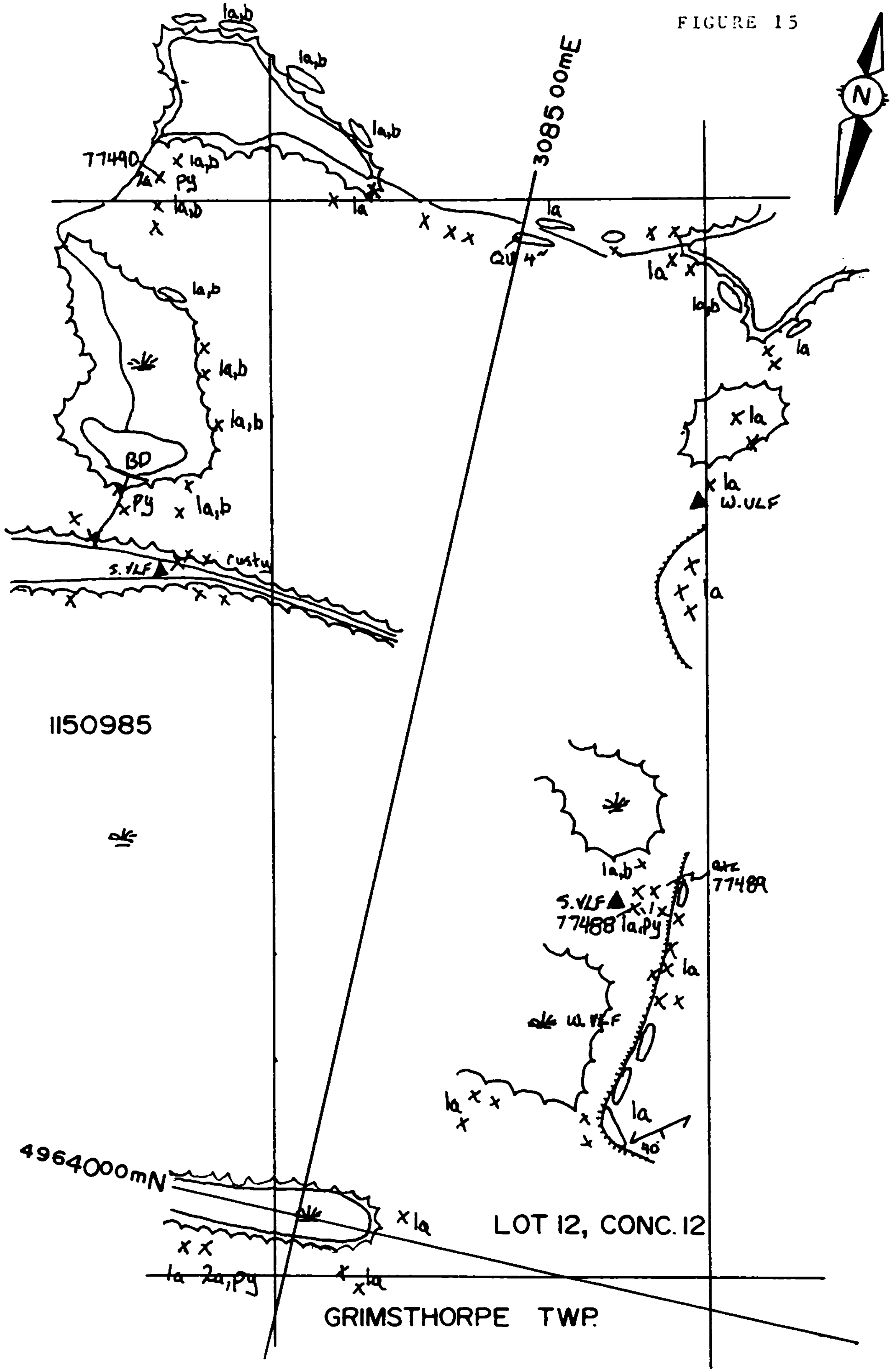

304000mE
N
4964000mN
5c
1bA
PY
77484
1b
BD
LOT 23, CONC. 13
GRIMSTHORPE TWP.

SCALE: 1:5,000

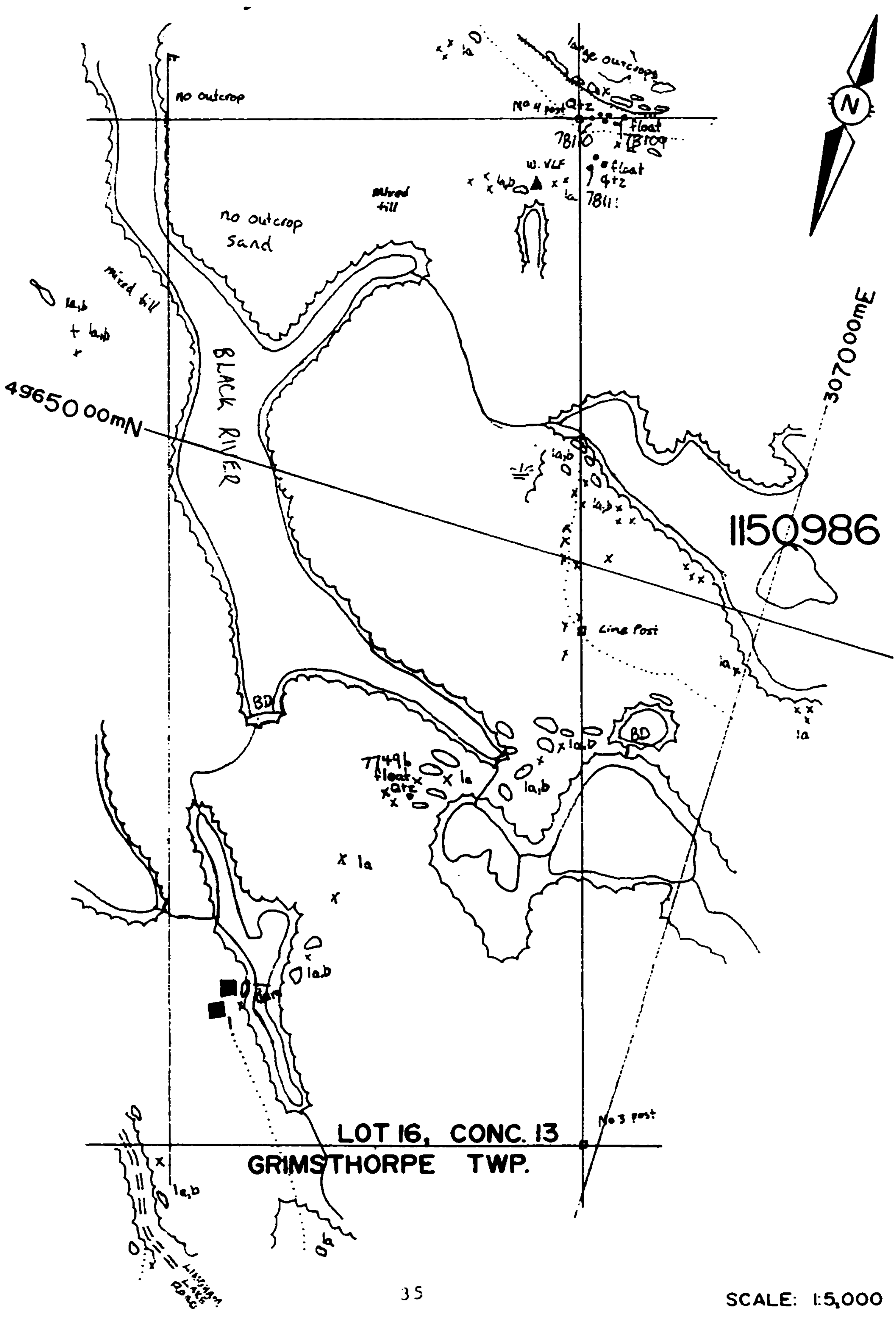

4968000mN
305000mE
SKOOTAMATTA ROAD
N
1a
1a chl.
float
78058-59
Qv
77495
77486-487
py
2a
78
tour
78057
Fe carb
Fe-carb
1a,b
2a,b
LOT 17, CONC. 16
GRIMSTHORPE TWP.

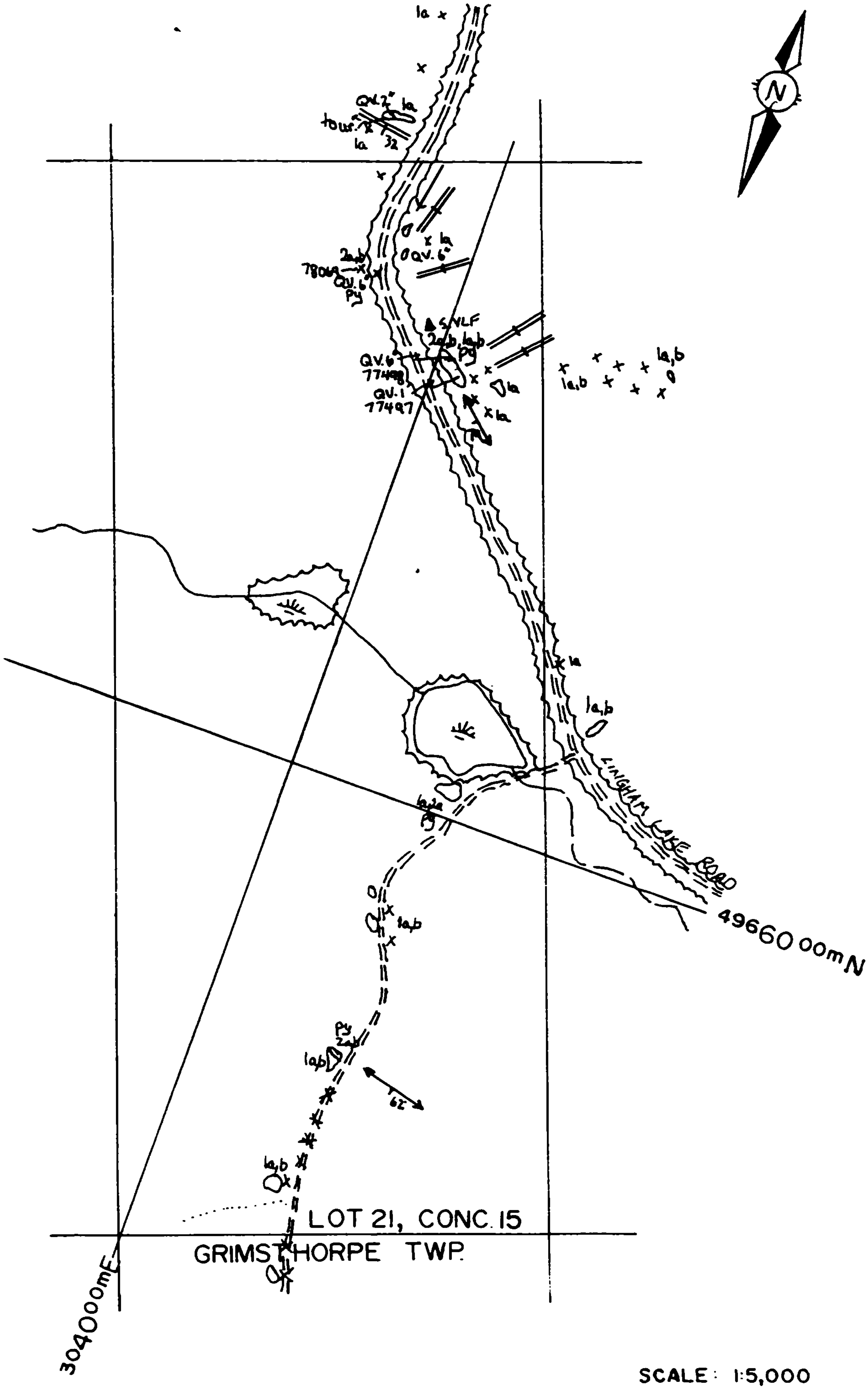
SCALE: 1:5,000

FIGURE 15



308500mE
4964000mN
1150985
LOT 12, CONC. 12
GRIMSTHORPE TWP.
SCALE: 1:5,000
N
77490
1a,b
Py
BD
S.VLF
W.VLF
rusty
QV 4"
77488 1a,Py
77489
40°
2a,Py


no outcrop
No 4 post
large outcrops
Qtz
float
7810
7809
W. VLF
float
qtz
7811
mixed till
no outcrop
sand
mixed till
1a,b
BLACK RIVER
4965000mN
307000mE
1150986
Line Post
BD
7749b
float
qtz
1a,b
1a
LOT 16, CONC. 13
GRIMSTHORPE TWP.
No 3 post
SCALE: 1:5,000


N
LOT 21, CONC. 15
GRIMSTHORPE TWP.
LINGHAM LAKE ROAD
4966000mN
304000mE
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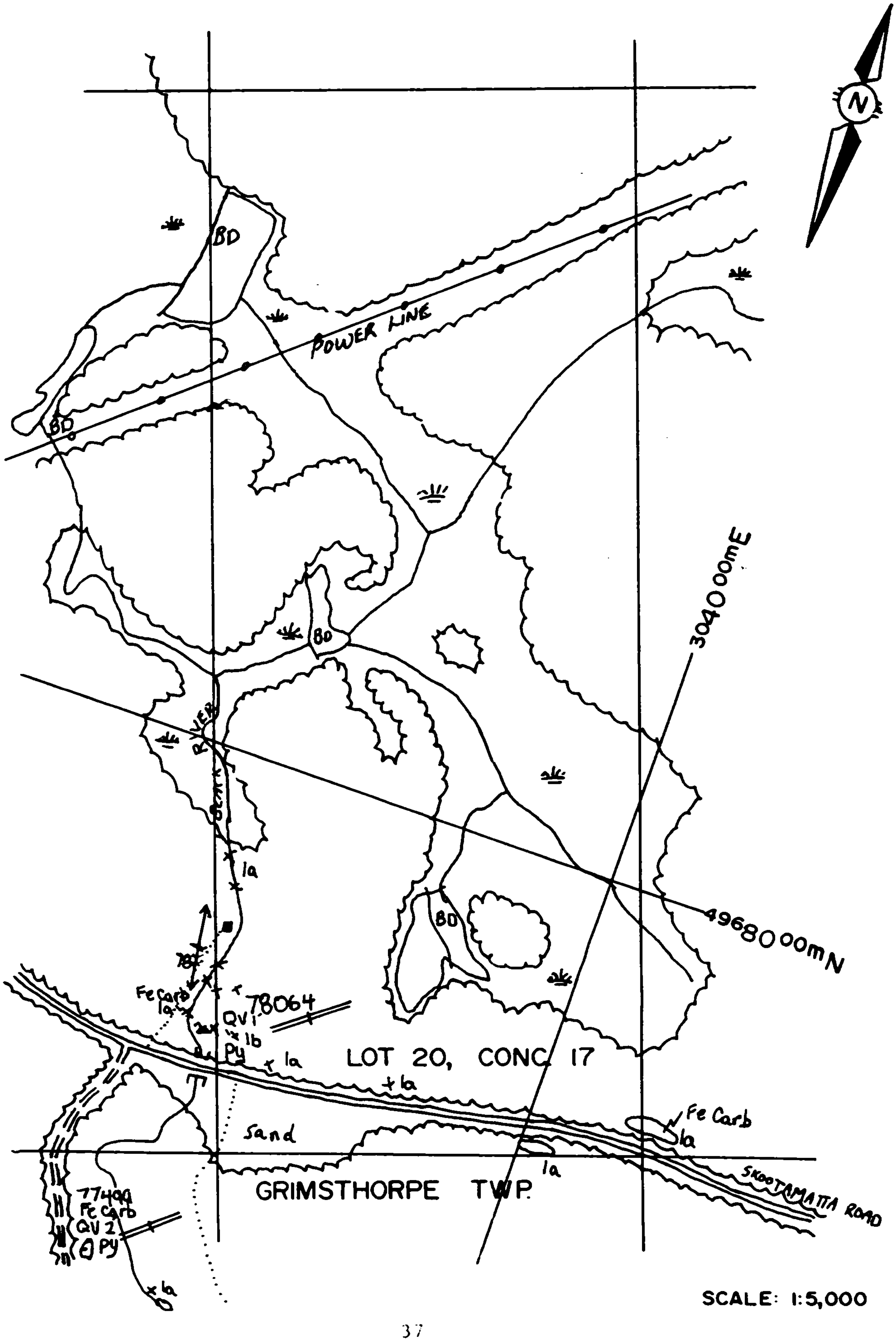
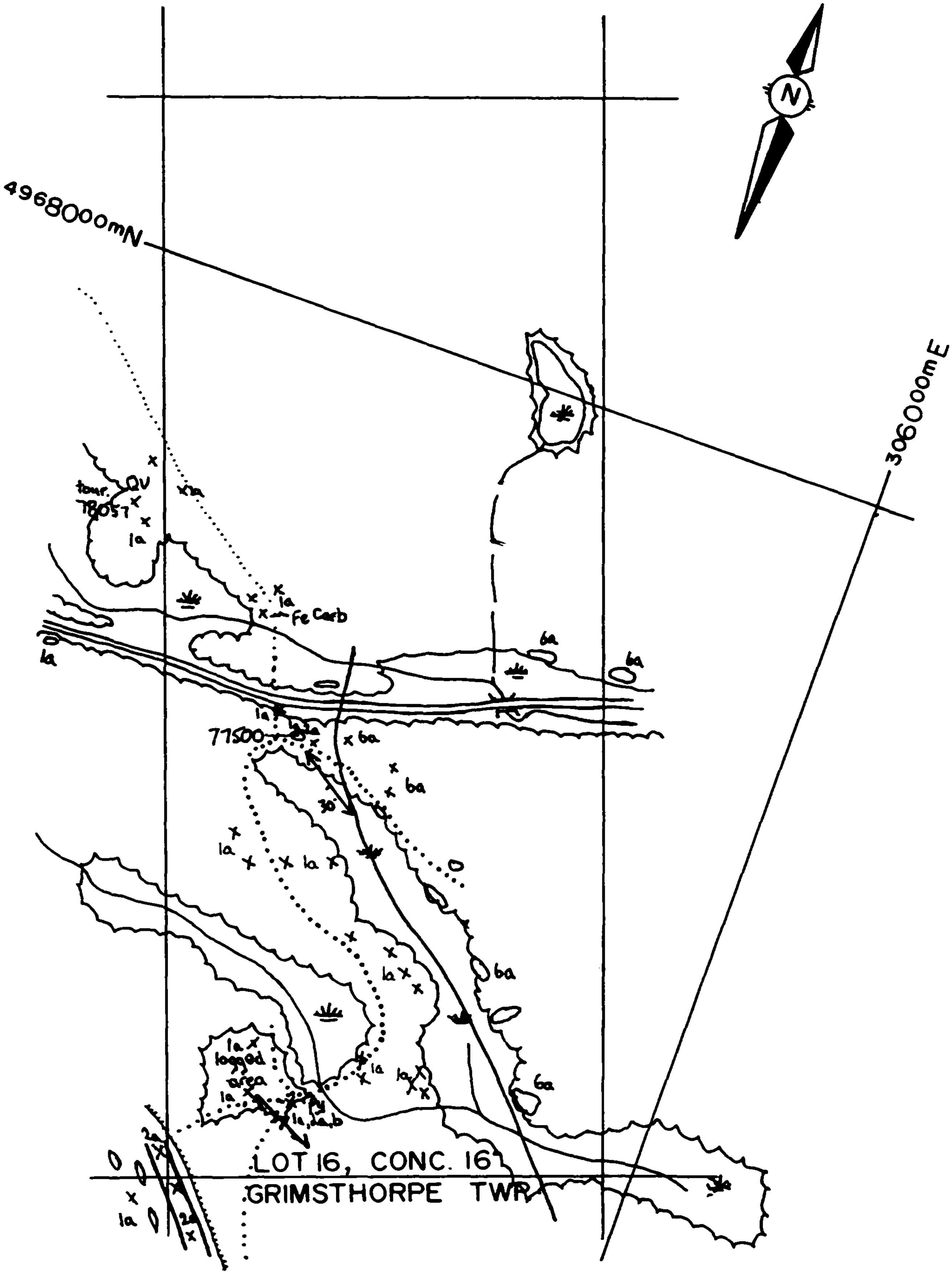
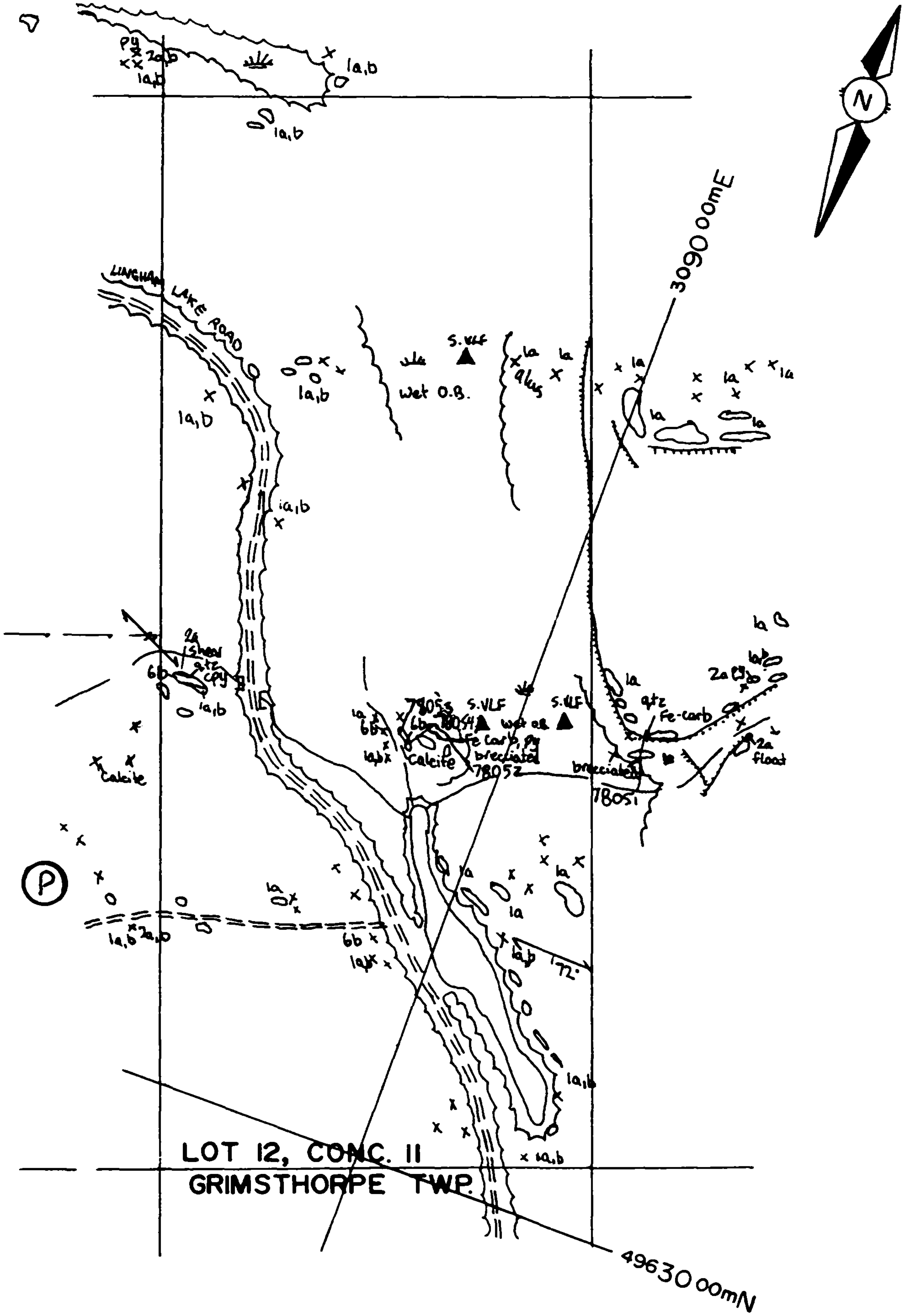

N
BD
POWER LINE
BD
BD
RIVER
BD
304000mE
4968000mN
la
78
Fe Carb
la
78064
QV1
1b
Py
la
LOT 20, CONC 17
la
Sand
Fe Carb
la
la
GRIMSTHORPE TWP.
SKOOTAMATTA ROAD
77499
Fe Carb
QV 2
Py
la

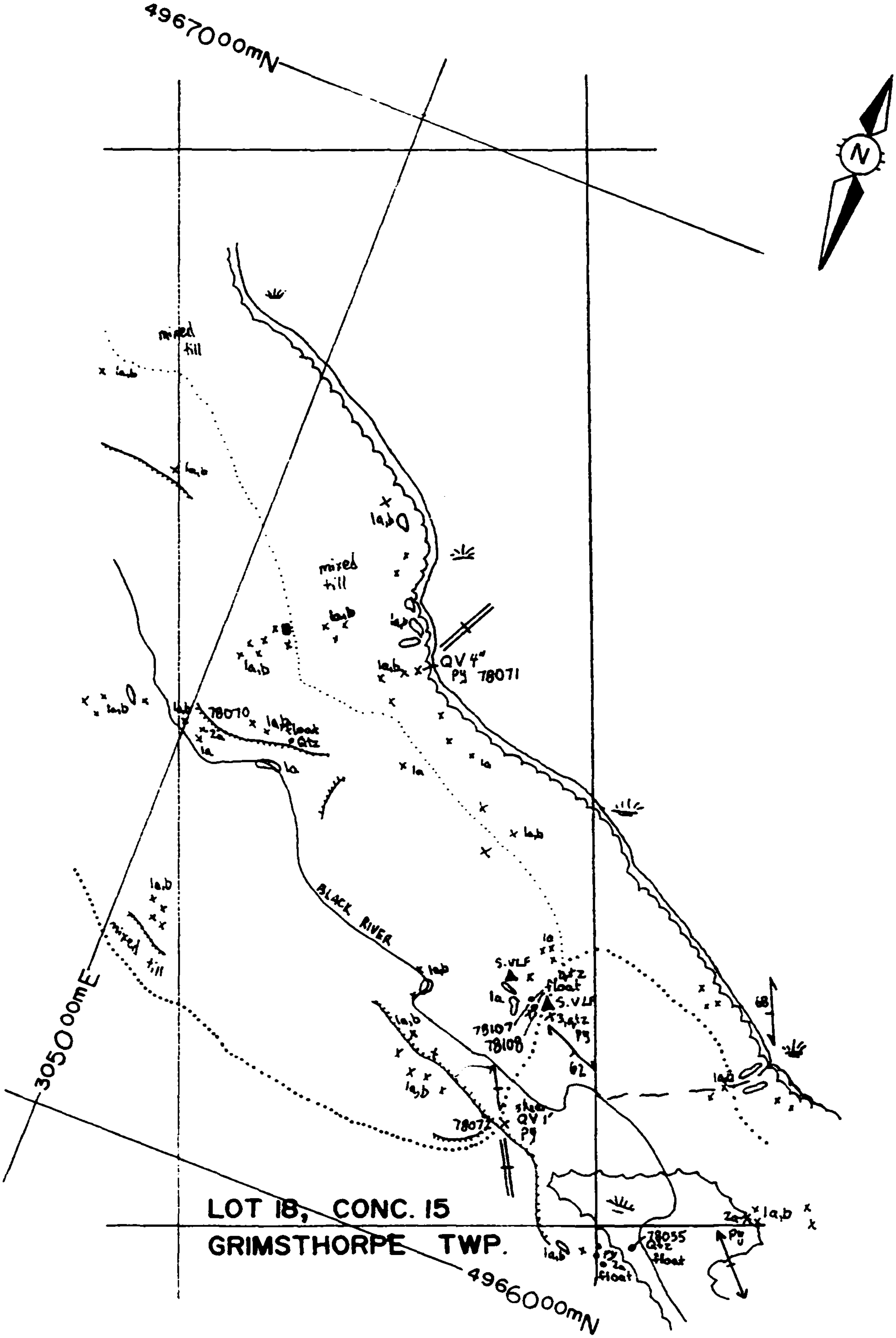
SCALE: 1:5,000


N
4968000mN
306000mE
tour.
QV
78057
la
Fe Carb
ba
77500
30°
logged area
la,2a,b
2a
LOT 16, CONC. 16
GRIMSTHORPE TWP.

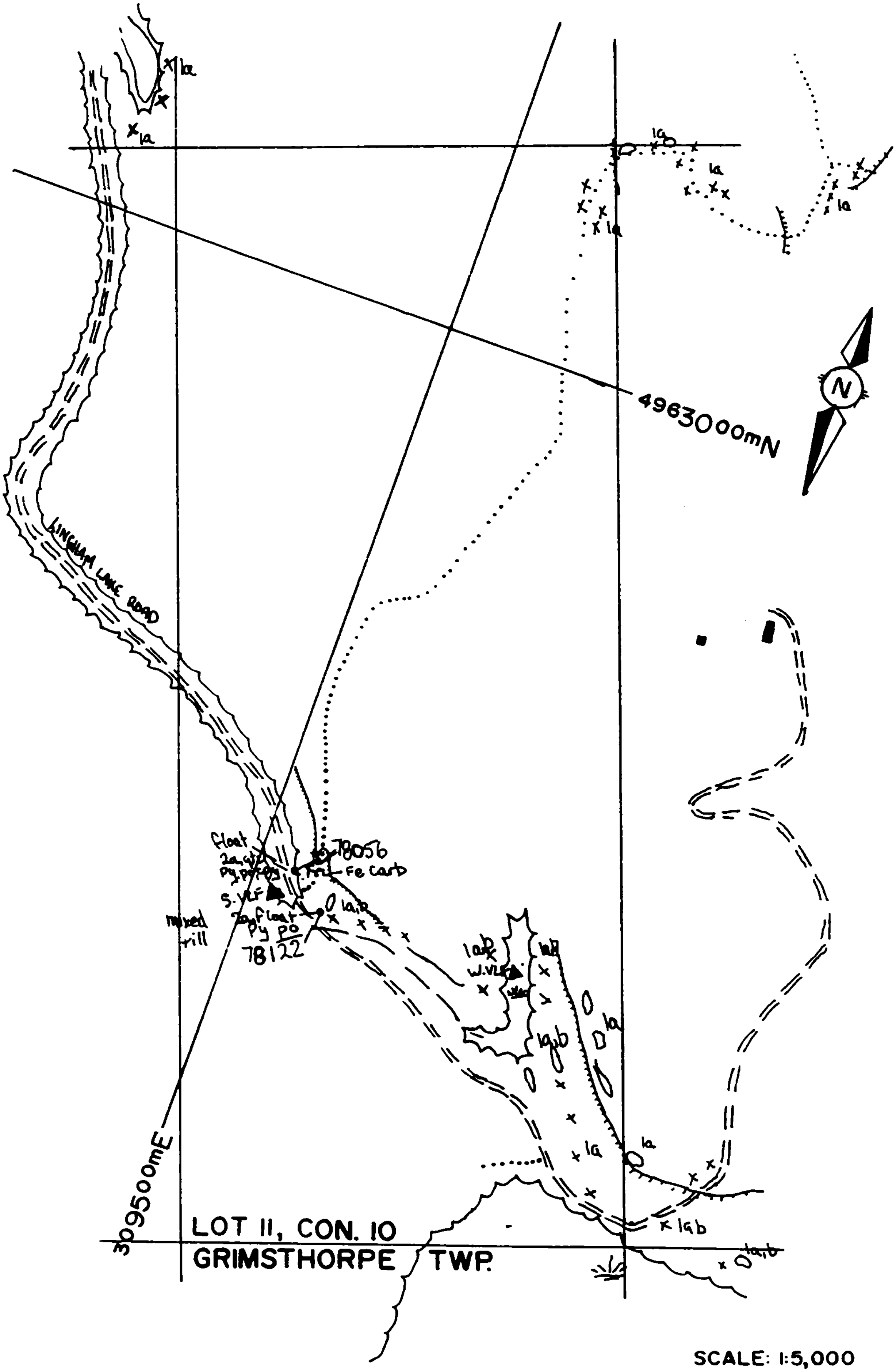
SCALE: 1:5,000

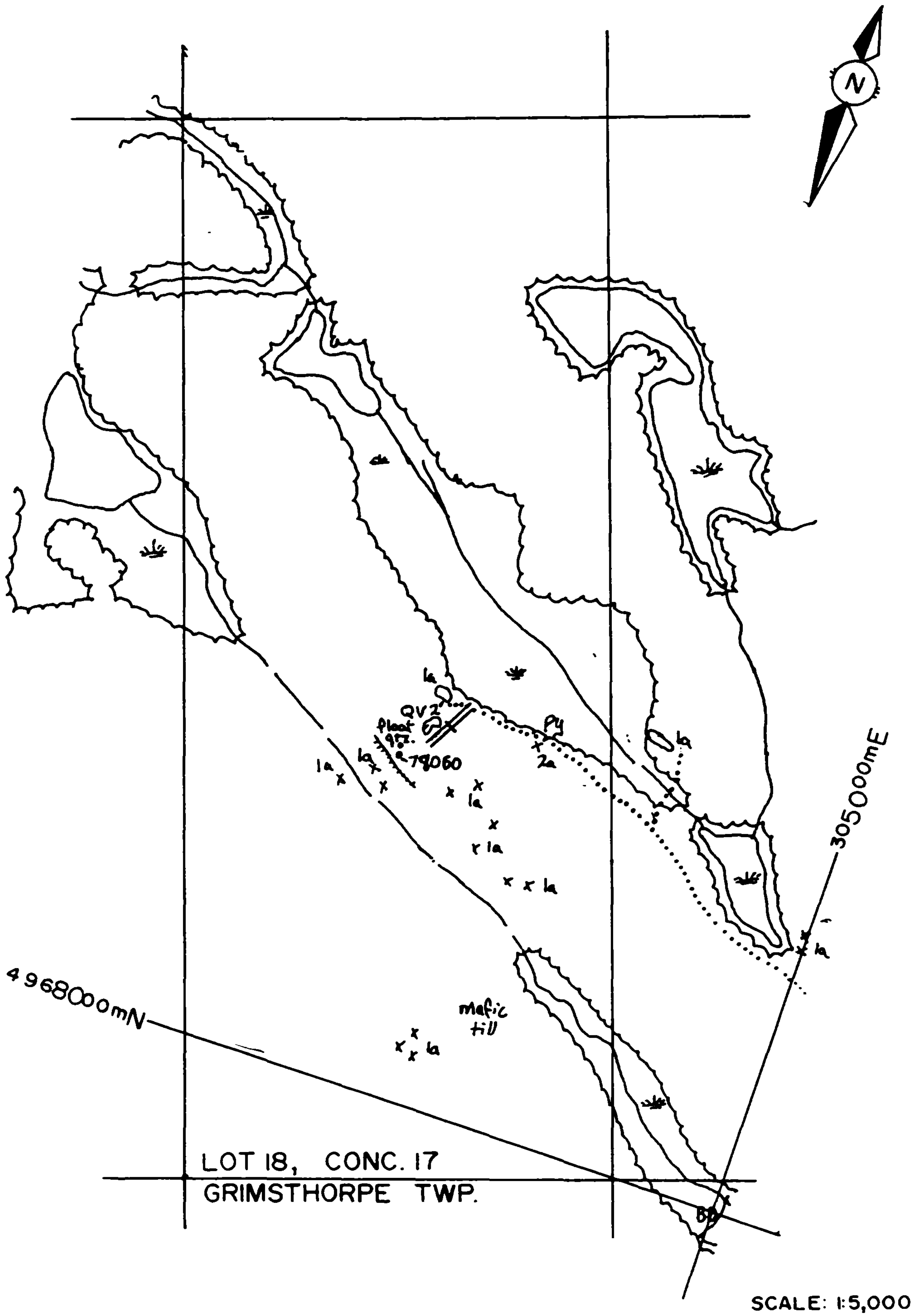

LINGHAM LAKE ROAD
3090 00mE
4963000mN
N
S.VLF
Wet O.B.
wet o.B.
78055
78054
78052
78051
Fe carb, py
brecciated
Calcite
qtz
Fe-carb
2a float
2a shear qtz cpy
LOT 12, CONC. 11
GRIMSTHORPE TWP.

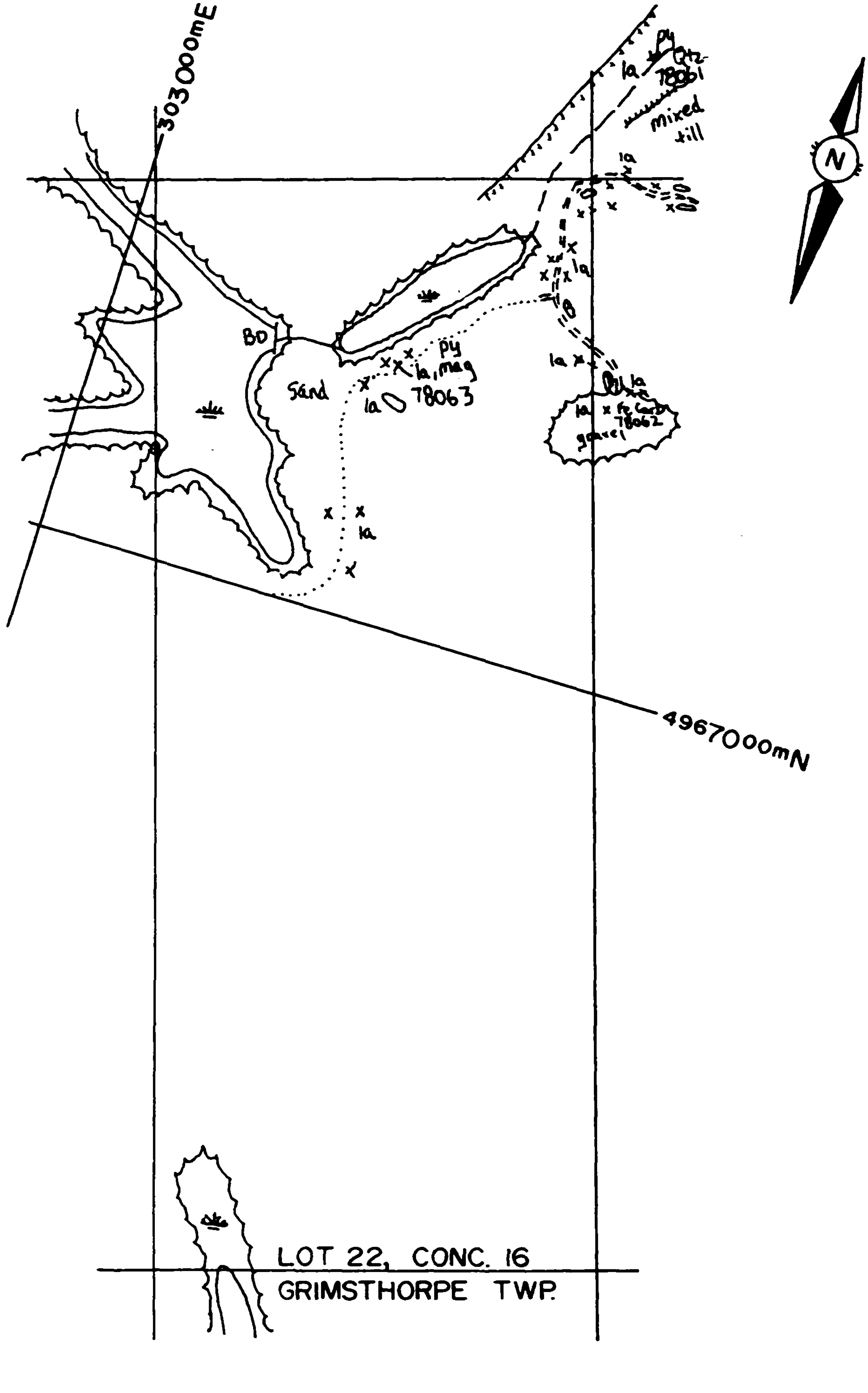
SCALE: 1:5,000


4967000mN
305000mE
496600mN
mixed till
BLACK RIVER
QV 4"
Py 78071
78070
78107
78108
78072
78055
S.VLF
LOT 18, CONC. 15
GRIMSTHORPE TWP.
496000mN

SCALE: 1:5,000


4963000mN
309500mE
N
LOT 11, CON. 10
GRIMSTHORPE TWP.
78056
Fe carb
78122
float
S. VLF
W. VLF
SCALE: 1:5,000


N
la
QVZ
Float qtz.
79060
Py
2a
la
Mafic till
4968000mN
305000mE
LOT 18, CONC. 17
GRIMSTHORPE TWP.
SCALE: 1:5,000


303000mE
4967000mN
N
py
la
Qtz
78061
mixed
till
la
BO
Sand
py
la, mag
la
78063
la
la
la
la
la
x fe Carb
78062
gravel
la
LOT 22, CONC. 16
GRIMSTHORPE TWP.

SCALE: 1:5,000

IV. REPORT OF WORK ON CLAIM GROUP

Logistics

On October 2nd and 3rd, 1991, 3 claims were staked in Grimsthorpe Township (Figure 25). These claims cover an area of 124.8 hectarces. The location of the claims in relation to the surveyed lot and concession lines are:

1150984	Lot 14, concession XIII, S½
	Lot 14, concession XII, N½
1150985	Lot 13, concession XII
1150986	Lot 15, concession XIII

These claims are held by:

R.J. Dillman
42 Springbank Dr.
London, Ontario
N6J 1E3

Access

Access to the claims can be made by following Highway 62 to the town of Gilmour. From Gilmour follow the Weslmacoon road to the Skootamatta Lake access road. Just west of where this road crosses the Black River there is a road going south. This road is known as the Lingham Lake access road. South of where this road crosses the Black River there is a trail leaving east from the Lingham Lake road. This trail crosses the western regions of the claim group.

Previous Exploration And Land Use

Todate, there is no record of past mineral exploration in the area of the claim group. A gravel permit covers the northwest quarter of 1150984.

After completion of staking and recording, a work permit was obtained for line cutting, geological mapping, and for preforming a mag and VLF survey(s).

A baseline was cut and cross lines established between October 5th and 6th, 1991. The baseline starts at the number 4 post of the claim 1150984 and runs for 1100 m on a bearing of 120°. Crosslines run every 100 m from the baseline for a distance of 400 m on the bearing 210°. Intermediate lines spaced every 50 m were run to detail conductors and magnetic anomalies. All lines are picketed or flagged at 25 m intervals.

Line cutting, mapping and geophysics were preformed by R.J. Dillman.

V. GEOLOGY OF THE CLAIM GROUP

Mafic metavolcanics

Almost 90% of the property consists of basalt. There appears to be two horizons of basalt which are seperated by a unit of

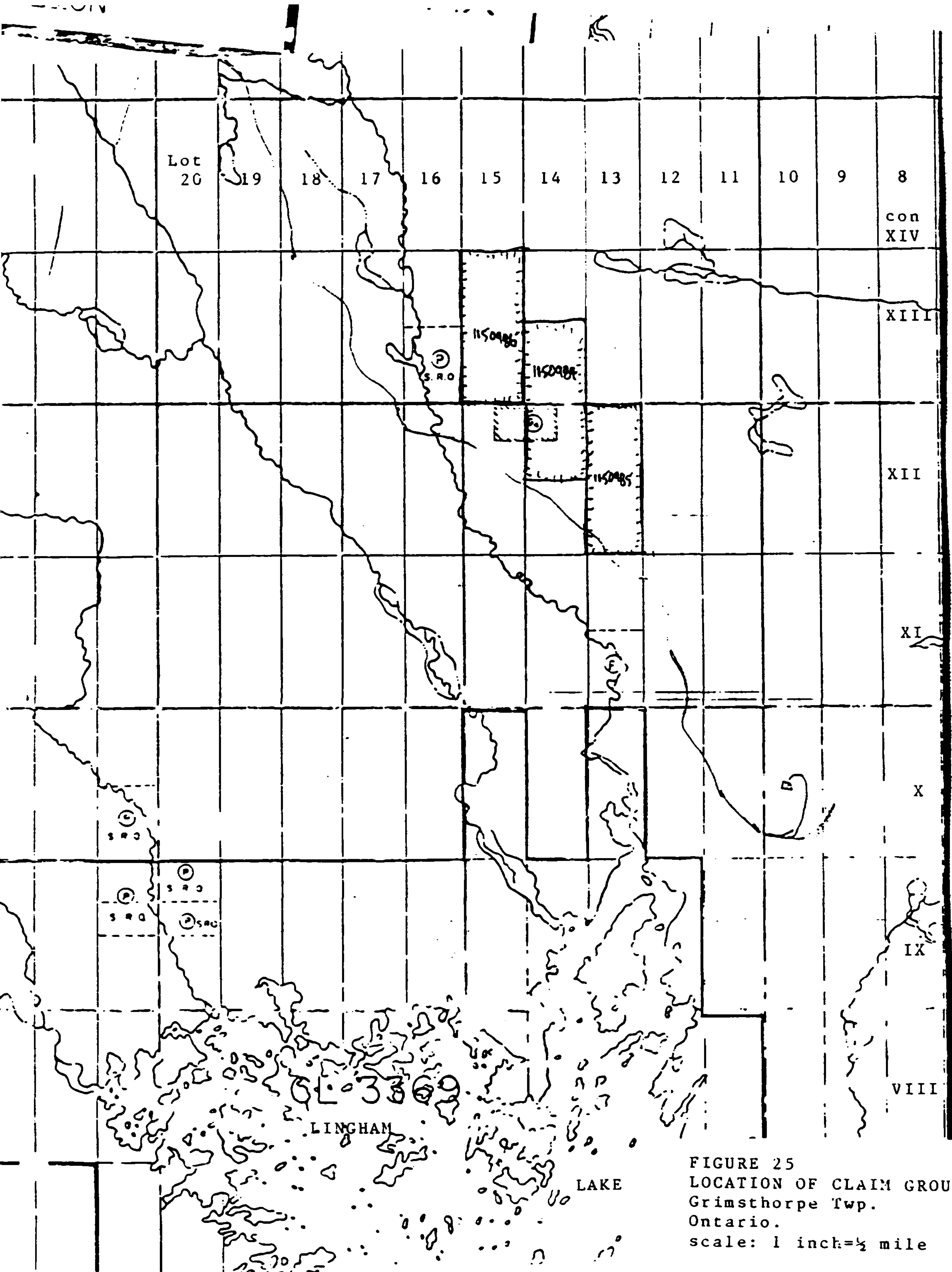


FIGURE 25
LOCATION OF CLAIM GROUP
Grimsthorpe Twp.
Ontario.
scale: 1 inch=½ mile

schists. North of the schists the basalt is very fine-grained, greyish green, and quite massive. It is exposed in large outcrops in higher terrain. This rock shows very little alteration and is weakly fractured or jointed.

South of the schist unit the basalts are fine to medium-grained and slightly darker in color. This is a result of amphibolization. The basalts in this region form massive flows and are not nearly as exposed as those to the north of the schists.

Schists

Schists can be divided into two groups: mafic and sedimentary. They were always found together and are best exposed along the creek that divides the grid.

Mafic schists, thought to be volcanic in origin (Meen, 1942) are very fine-grained and aphanitic. On a fresh surface the rock is blackish grey to blackish green. It is usually rusty on a weathered surface. This is due to pyrite and rarer pyrrhotite. Pyrite is very common in the schists, forming clots and stringers.

Sedimentary schists are fine-grained and granular, consisting mostly of quartz and lesser biotite and hornblende. They are light grey on a fresh surface and rusted on a weathered surface. Pyrite is also very common.

Shearing is very evident in the schists. They are strongly schistose which is variable in direction as a result of the shearing. Alteration to the schists consists of silicification in the most sheared areas. Quartz stringers up to a few centimetres wide also occur in the most sheared areas. Gold has been detected in zones where shearing, silicification, and sulphide mineralization is most prominent.

Metasedimentary Rocks

Marble

A small unit of marble can be found in the mafic metavolcanics north of the creek on 1150984. The marble trends northwest for a distance of 40 metres and is up to 10 metres wide. It is variable in color, ranging in shades of white, grey, and rusty brown. On a weathered surface the marble light brown and appears banded. Grain size varies from fine to medium-grained.

Siliceous Magnetite Iron Formation

Two units of siliceous iron formation were found in the mafic metavolcanics north of the creek. This rock is primarily composed of very fine-grained, rusty colored quartz and minor biotite and chlorite. A few percent of the rock is fine, disseminated magnetite which gives the rock a very strong magnetic attraction. On a weathered surface the rock is very rusty colored. Each unit is less than a metre wide and can only be traced a few metres but the magnetic survey (Map 4) suggests that the siliceous iron formation at 10+50S, 1+00W may continue west-northwest for at least 100 m.

Felsic Intrusive Rocks

Granitic Dikes

Dikes of granite occur at 3 localities within the grid. They are small, discontinuous dikes measuring only a few metres wide and traced at maximun 40 m. They appear to favor an east-west trend. On a fresh surface the rock is pinkish white, mottled with few flakes of biotite. Grain size varies between dikes. Finer-grained samples are more granular and could be called aplite. Finer-grained dike rock shows weak banding or is gneissic.

Structure

At least three structural events may have occurred on the property:

S1.) Development of a strong foliation between 120°-130° . This foliation has been recognized in all the mafic metavolcanics east of the Lingham Lake Complex. On the property this foliation coincides with the direction of shearing in mafic and sedimentary schists. This fabric is probably related to a regional event since it coincides with most topographical lineaments of the area.

S2.) Development of a weak foliation between 130°-140° . This foliation is also present in the mafic and sedimentary schists on the property. It may have developed during shearing of the schist units.

S3.) Development of a moderate foliation between 80°-110° . This foliation has been recognized in most rock types and is the dominate foliation in mafic metavolcanics north of the Canniff Lake pluton. The foliation also coincides with less prominent topographical lineaments of the area. On the property this foliation cuts across S1. and S2. foliations.

Shearing

A northwest trending shear zone has been traced for 550 m between lines 3+00S to 8+50S. The shear occurs in mafic and sedimentary schists. Strongly sheared areas are silicified and in places quartz veins a few centimetres wide parallel and cut schistosity. Two orientations of schistosity have resulted from shearing. One orientation is parallel with the trend of the schist unit and appears to dominate the rocks along the along the southern extent of the shear zone. The second direction is offset or oblique to the trend of the schist unit. Within the strongest sheared areas black, smokey quartz veins less than 10 cm wide trend parallel to the direction of shearing. These veins have become broken and offset on plains parallel to the second orientation of schistosity. Around the stringers there is an aureole of silicification. This alteration has been observed to be as much as 2 m wide. Gold values up to 21,500 ppb have been found in zones of intense shearing, silicification, and sulphide mineralization.

Geology of the Claim Group con't

A second structure seen as a lineament trends east-west across the property. This lineament has an associated magnetic high and VLF conductor. Foliations (S3) in some mafic metavolcanics trend in the same direction as the lineament. Although no fault has been observed, the lineament appears to offset the sheared mafic and sedimentary schists.

Metamorphism

The metamorphic grade within the claim group appears to increase in grade from east to west across the property. Rocks on the eastern regions of the property are of upper greenschist facies and increase to lower amphibolite facies in the western regions.

Mineralization

On the property the most abundant sulphide is pyrite. It is most commonly found in mafic and sedimentary schists. Pyrite is also present in silicified areas of shear zones.

Arsenopyrite is only found in silicified areas of shear zones. It can be quite massive forming euhedral crystals along the contact margins of quartz stringers in the shear zones. Usually, arsenopyrite is only seen as fine disseminations in siliceous areas.

Pyrrhotite is rare mineralization and tends to be found in less altered areas of schists. This mineralization may be the cause of the magnetic highs along schist units.

Magnetite has been found in siliceous rock in the mafic metavolcanics of the northern regions of the claims. Magnetite mineralization is quite strong in these zones and can total as much as 5% of the rock.

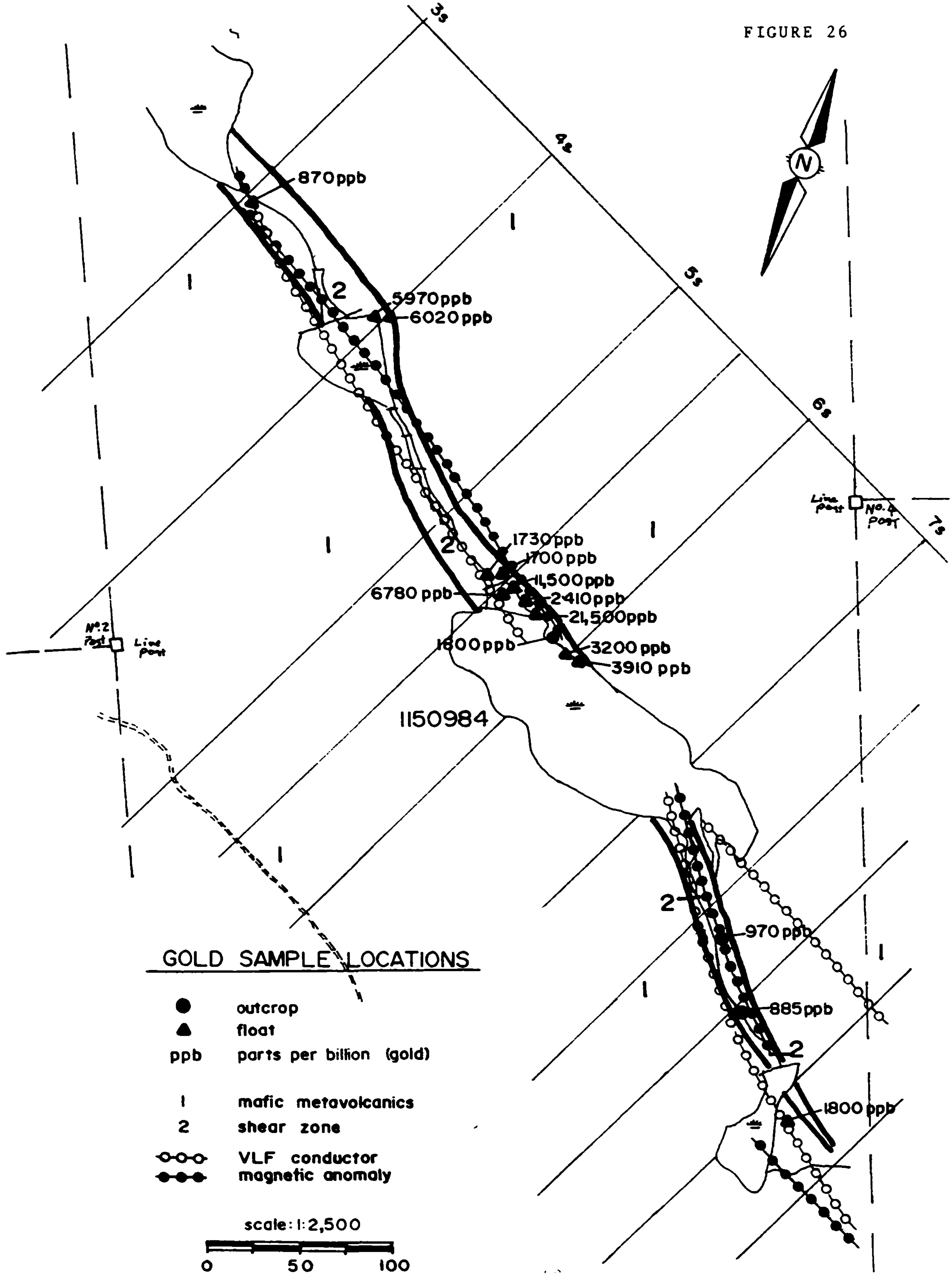
Gold has only been detected in sheared and silicified schists. There is a strong relationship of gold with shearing, silicification, pyrite, and arsenopyrite. Figure 26 outlines the extent gold mineralization found in outcrop and float along the main shear structure on the claims.

Rock Sampling

Rock samples were taken of sulphide mineralization whenever it was located. Samples were sent to Barringers Laboratories in Mississauga, Ontario. A total of 32 were taken on the claim group. Results of the samples have been given in Part III. of this report.

At the lab the samples were pulverized with a jaw crusher and then cone crushed to -10 mesh. From this, a 300 gm split was crushed to -100 mesh. For analysis, 0.5 gm of the -100 mesh fraction was assayed for gold by fire assay-atomic absorption methods.

FIGURE 26



3s
4s
5s
6s
7s
N
870ppb
5970ppb
6020ppb
1730ppb
1700ppb
11,500ppb
6780 ppb
2410ppb
21,500ppb
1800ppb
3200 ppb
3910 ppb
1150984
970ppb
885ppb
1800ppb
No. 2 Post
Line Post
Line Post
No. 4 Post
GOLD SAMPLE LOCATIONS
outcrop
float
ppb parts per billion (gold)
1 mafic metavolcanics
2 shear zone
VLF conductor
magnetic anomaly
scale: 1:2,500
0 50 100

V. VLF SURVEY

Logistics

From October 11 to October 24, 1991, a electromagnetics survey (VLF) was completed over the grid (Map 3). A total of 209 readings were taken over 4.8 km of line. The instrument used for the survey was a Geonics EM-16. The station received during the survey was Cutler, Maine, USA, which operates at a frequency of 24 kHz. During the survey the instrument was always orientated N20° E. The survey detected 7 conductive zones on the grid.

Conductor Evaluation

Conductor A

Conductor A is at least 250 m long trending northwest across lines 3+00S to 5+50S. This conductor occurs along a creek and is coincedental with a shear zone found while prospecting along the creek. Samples of float boulders and outcrop along the shear have yielded gold values up to 21,500 ppb. Sulphides in the shear zone consist of pyrite and arsenopyrite. The VLF suggests that the shear dips vertically or steeply to the west. Although sulphides occur at surface greater concentrations may occur at depth. Conductor A is also coincedental with a magnetic anomaly along its entire length.

Conductor B

Conductor B strikes northwest between lines 7+00S to 9+00S. The conductor follows the same creek as conductor A. The VLF survey is incomplete along line 6+00S due to a beaver pond and because of this, it was impossible at the time of the survey to establish whether conductor B is a continuation of conductor A. Conductor B also occurs over sheared and silicified mafic and sedimentary schists. Mineralization and alteration is similar to that found along conductor A. Assays of outcrop and float have shown gold values up to 1800 ppb. The conductor appears to dip steeply west and may increase in intensity with depth. There is a magnetic anomaly coincedental with the conductor.

Conductor C

Conductor C trends northwest and appears to intersect conductor B. The axis of the conductor occurs over a sharp, linear draw. No outcrop is exposed at the bottom of the draw but along the sides are outcrops of basalt. Overburden at the bottom of the draw consists of till and is dry. Conductor C may represent a fault that dips vertically.

Conductor D

Conductor D was only detected on line 11+00S and occurs over a small pond. On the south side of the pond mafic schists occur and are mineralized with traces of pyrite. Although there is the presence of sulphide mineralization in the area it is believed that conductor D is caused by the pond.

VLF Survey con't

Conductor E

Conductor E was detected for at least 100 m trending northwest between lines 10+00S and 11+00S. It is a very weak conductor and occurs at the base of a northeast facing slope. Outcrops of basalt occur along the slope. No sulphides were observed in the outcrops. Conductor E is probably an effect of topography.

Conductor F

Conductor F trends east-west for at least 100 m between lines 9+00S and 10+00S. The conductor is coincedental with deep, wet overburden. No outcrop was observed in the area. No apparent cause for the conductor can be determined other than it reflects conductive overburden.

Conductor G

Conductor G was only detected on line 11+00S and is associated with a magnetic high. This conductor is on strike with conductor B. The conductor occurs in flat, dry topography. Outcrops in the area consist of basalt. Since this conductor occurs with a magnetic high it may represent sulphide mineralization.

VII. MAGNETIC SURVEY

Logistics

Between October 23 to October 25, 1991, a magnetics survey was completed over the grid (Map 4). A total of 241 readings were taken over 5.1 km of line. The instrument used for the survey was a Gem Systems Proton Precession Magnetometer, model GSM-8.

During the survey, base stations were established on the baseline at 5+00S and 8+00S. Periodic readings were taken at these locations and used to correct for diurnal variations during the survey.

Anomaly Evaluation

Anomaly A

Anomaly A occurs as a magnetic high over sheared and silicified mafic and sedimentary schists. This anomaly is coincedental with conductor A (Map 3). The anomaly is thought to be caused by pyrrhotite mineralization within the schists. Although the sheared unit is not well exposed pyrrhotite was noted in at least one location. This anomaly has an apparent strike length of 250 m. It appears to dip to wards the west at a relatively steep angle or near-vertical dip. Gold has been detected in outcrop and float along the entire length of this anomaly.

Magnetic Survey con't

Anomaly B

Anomaly B has a strike length of at least 100 m, trending northwest and dips steeply towards the west. This anomaly is on strike with anomaly A. It is possible that they are the same anomaly but the pond on line 6+00S made this impossible to prove at the time of the survey. Anomaly B occurs over sheared and silicified schists similar in appearrence, alteration, and mineralization as that found around anomaly A. Gold has also been found along this anomaly.

Anomaly C

Anomaly C is a short, isolated magnetic low. Prospecting the area has revealed that the low is caused by a unit of marble within the mafic metavolcanics (Map 2). This marble unit is up to 5 m wide and can be traced for a distance of 40 m. The magnetic response of the marbles suggests that the unit dips steeply to the southwest. No suphides were observed in the marble.

Anomaly D

Anomaly D was detected over a small, dry pond on line 9+00S. It is a short, magnetic low with a near-vertical dip. No apparent cause for the anomaly was seen in the field but a float boulder of sheared and silicified schist was found near-by. A sample of this rock assayed 1800 ppb gold. Anomaly D is on strike with anomaly B. It is possible that the magnetic low may represent silicification associated with shearing.

Anomaly E

Anomaly E has a strike length of at least 100 m, striking west-northwest. It is a strong magnetic high which appears to dip steeply to the north. The anomaly occurs over a sharp draw. The walls of the draw consist of basalt. At one locality along the draw a unit of siliceous magnetite iron formation was found by prospecting. A sample of this rock showed no gold.

Anomaly F

Anomaly F is a moderate magnetic high with a strike length of at least 50 m. The anomaly occurs over basalt outcrops and prospecting has revealed no explanation for the anomaly. This anomaly may be of some interest since it is on strike with conductor F.

Conclusions and Recommendations

Conductors A and B are the strongest and most favorable conductors on the property. Both conductors have associated magnetic anomalies. Both conductors occur along a zone of shearing and silicification. Pyrite and lesser amounts of arsenopyrite have been observed in outcrops and float along the length of both conductors. Gold values up to 21,500 ppb have been detected in rock samples taken along the shear zone.

Conclusion and Recommendations con't

Conductors A and B are possibly the same conductor. The presence of a small pond made establishing this hypothesis impossible at the time of the survey. Conductor A is open along strike to the northwest. A large, linear swamp also made it impossible to determine the total strike length of this conductor.

Further work is recommended for evaluating the potential of conductors A and B. An outline for future work is purposed in the following manor:

1) Complete the mag and VLF along line 6+00s to establish whether conductors A and B are the same conductor.

2) Continue the mag and VLF along lines 0+00 to 2+00S. This will determine if conductor A continues in this direction.

3) Extend the baseline towards the southeast and cut grid lines to establish the full extent of conductor G, This conductor has the same magnetic-electromagnetic response as conductors A and B. Also, conductor G is on strike with conductor B and may be a continuation.

4) Collect soil samples over conductor G. Soil type and terrain are favorable to determine whether conductor G carries gold mineralization.

5) Expose conductors A, B, and G by trenching.

6) Drill both conductors A and B to examine the full extent of gold mineralization found along the strike length of both conductors.

7) Drill conductor G if soil and rock show favorable gold values.

Dec. 13, 1991

R.J. Dillman

R.J. Dillman

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1952: Map 95G-Kaladar aeromagnetic sheet: Geol. Surv. Canada, geophysics paper No. 95.

Statement of Qualifications

With regards to this report prepared on DECEMBER 13, 1991, I, Robert J. Dillman of 42 Springbank Dr., London, Ontario do certify that:

1. I am currently a student at the University of Western Ontario and enrolled in the geology program.

2. I have been active in my profession since 1977.

3. I have submitted assessment work to the Ministry of Natural Resources on behalf of various companies and for my own personal adventures and, in all cases the reports of work have been accepted by the Ministry

4. The information given in this report is accurate to the best of my knowledge.

DECEMBER 13, 1991

R.J. Dillman
Prospector
R.J. Dillman

APPENDIX I
PROSPECTING DAILY LOG
1991

July 9	Travel from London to Cloyne, Ontario	
July 10	Prospected Tudor Township, Lot 1, conc. XI. 2 samples	
July 11	Prospected Tudor Twp., lot 2, conc. XII. 2 samples	
July 12	Prospected Tudor Twp., lot 5, conc. XIII. 2 samples	
July 13	Prospected Grimsthorpe Twp., 3 samples	lot 17, conc. XVI, N½ lot 21, conc. XIV, lot 23, conc. XIII
July 14	Prospected Grimsthorpe Twp., 3samples	lot 17, conc. XVI
September 17	Prospected Grimsthorpe Twp., 5 samples	lot 12, conc. XII lot 13, conc. XII
September 18	Prospected Grimsthorpe Twp., 3 samples	lot 14, conc. XII, N½ lot 14, conc. XIII, S½ lot 15, conc. XII, N½
September 19	Prospected Grimsthorpe Twp., 4 samples	lot 15, conc XIII lot 16, conc. XIII lot 15, conc. XII
September 20	Prospected Grimsthorpe Twp., no samples	lot 17, conc. XIII, N½ lot 18, conc. XIII, N½
September 21	Prospected Grimsthorpe Twp. 5 samples	lot 12, conc.,XI, middle lot 11, conc. XI, " lot 10, conc. XI, "
September 22	Prospected Grimsthorpe Twp., 1 sample	lot 19, conc. XIV, N½ lot 18, conc. XIV, N½ lot 17, conc. XIV, N½
September 23	Prospected Grimsthorpe Twp., no samples	lot 15, conc. XIV
September 24	Prospected Grimsthorpe Twp., 4 samples	lot 17, conc. XVI, NE¼ lot 17, conc. XVII, S½ lot 18, conc. XVII, S½

Appendix I., Daily Log con't

September 25	Prospected Grimsthorpe Twp.,	lot 21, conc. XVI, N½
		lot 22, conc. XVI, NE¼
		lot 22, conc. XVII, S½
		lot 21, conc. XVII, S½
	5 samples	
September 26	Prospected Grimsthorpe Twp.,	lot 19, conc. XVI, N½
		lot 20, conc. XVI, S½
		lot 21, conc. XVI, S½
		lot 21, conc. XV, S½
	4 samples	
September 27	Prospected Grimsthorpe Twp.,	lot 18, conc. XV
		lot 17, conc. XV, S½
	3 samples	
September 28	Prospected Grimsthorpe Twp.,	lot 14, conc. XII
		lot 13, conc. XIII
		lot 12, conc. XII
	2 samples	
September 29	Prospected Grimsthorpe Twp.,	lot 18, conc. XIII, S½
		lot 19, conc. XIII, S½
		lot 19, conc. XII, S½
	no samples	
September 30	Prospected Grimsthorpe Twp.	lot 12, conc. XI
		lot 13, conc. XI
	1 sample	
October 1	Prospected Grimsthorpe Twp.	lot 14, conc. XII, N½
		lot 14, conc. XIII, S½
	4 samples	
October 2	Staked lot 14, conc. XIII, S½	
	lot 14, conc. XII, N½	
	lot 13, conc. XII, all	
October 3	Staked lot 15, conc. XIII	
October 4	Prospected Grimsthorpe Twp.	lot 14, conc. XII, N½
		lot 13, conc. XII, N½
	2 samples	
October 5	Cut baseline	
October 6	Cut baseline	
October 7	Prospected Grimsthorpe Twp.	lot 14, conc. XV
	no samples	
October 8	Prospected Grimsthorpe Twp.	lot 14, conc. XIII, S½
		lot 14, conc. XIV
		lot 15, conc. XIV
	4 samples	

October 9	Prospected Grimsthorpe Twp. 3 samples	lot 29, conc. X, N½
October 10	Flagged grid lines on 1150984 & 1150985	
October 11	VLF survey and mapped geology on grid 2 samples	
October 12	VLF survey and mapped geology on grid 2 samples	
October 13	Prospected Grimsthorpe Twp. 2 samples	lot 33, conc. XI, SW¼
October 14	Prospected Grimsthorpe Twp. 1 sample	lot 11, conc. X
October 15	Prospected Grimsthorpe Twp. 1 sample	lot 20, conc. XVI
October 16	Prospected Grimsthorpe Twp. 2 samples	lot 18, conc. XVI lot 19, conc. XVI lot 20, conc. XVI
October 17	Prospected Grimsthorpe Twp. no samples	lot 11, conc. X, S½ lot 10, conc. IX, N½ lot 9, conc. IX, N½
October 18	Prospected Grimsthorpe Twp. 5 samples	lot 13, conc. XII lot 14, conc. XII
October 19	Prospected Grimsthorpe Twp. no samples	lot 11, conc. X lot 10, conc. X lot 11, conc. X
October 20	Prospected Grimsthorpe Twp. 6 samples	lot 19, conc. XV lot 20, conc. XV
October 21	Mapped geology on grid no samples	
October 22	Magnetics survey on grid	
October 23	Magnetics survey on grid	
October 24	Completed VLF survey on grid 2 samples	
October 25	Mapped geology on grid 4 samples	
October 26	Mapped geology on grid 2 samples	

Appendix I., Daily Log con't

October 27	Completed geological mapping on grid 1 sample
October 28	Completed magnetics survey on grid no sample
October 29	Travelled from Cloyne to London
December 7	Drafting
December 8	Drafting
December 9	Drafting & report
December 10	Report
December 11	Report
December 12	Completed report

APPENDIX II.
ANALYTICAL RESULTS

BARRINGER LABORATORIES

5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
PHONE: (416) 890-8566
FAX: (416) 890-8575

14-Aug-91

MR. R. DILLMAN
42 Springbank Drive
London, ON
N6J 1E3

Attn: R.Dillman
Project:

Received: 19-Jul-91 17:03

PO #:

Job: 911211

Status: Final

Sample	Au FA/AA1 ppb
77476	5
77477	5
77478	5
77479	<3
77480	<3
77482	1200
77483	<3
77485	105
77486	250
77487	130

BARRINGER LABORATORIES

5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
PHONE: (416) 890-8566
FAX: (416) 890-8575

14-Aug-91

MR. R. DILLMAN
42 Springbank Drive
London, ON
N6J 1E3

Page: 1
Copy: 1 of 1

Attn: R.Dillman
Received: 19-Jul-91 17:03
Project:
PO #:

Job: 911211
Status: Final

Sample	Mo ICAP ppm	Cu ICAP ppm	Pb ICAP ppm	Zn ICAP ppm	Ag ICAP ppm	Ni ICAP ppm	Co ICAP ppm	Mn ICAP ppm	Fe ICAP %	As ICAP ppm	Au ICAP ppm	Hg ICAP ppm
77481	12	58	9	45	0.2	7	9	348	11.3	4	ND	ND

Sample	Sr ICAP ppm	Cd ICAP ppm	Sb ICAP ppm	Bi ICAP ppm	V ICAP ppm	Ca ICAP %	P ICAP %	La ICAP ppm	Cr ICAP ppm	Mg ICAP %	Ba ICAP ppm
77481	4	1	4	2	77	0.56	0.07	7	41	0.37	48

Sample	Ti ICAP %	B ICAP ppm	Al ICAP %	Na ICAP %	Si ICAP %	W ICAP ppm	Be ICAP ppm
77481	0.04	37	0.80	0.10	0.01	4	1

BARRINGER LABORATORIES
5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
PHONE: (416) 890-8566
FAX: (416) 890-8575

26-Sep-91

MR. R. DILLMAN
42 Springbank Drive
London, ON
N6J 1E3

Page: 1
Copy: 1 of 2

Attn: R.Dillman
Project:

Received: 24-Sep-91 13:59

PO #:

Job: 911323 Status: Final

Sample	Au FA/AA1 ppb
77488	11
77489	61
77490	20
77491	570
77492	16
77493	10
77494	6780
77495	35
77496	19
77497	24
77498	16
77499	10
77500	74
78051	13
78052	6
78053	8
78054	7
78055	80
78056	8

Abbreviations:

Parameters:

Au : Gold

Methods:

FA/AA1 : Fireassay/Atomic Absorption(1 assay ton)

BARRINGER LABORATORIES

5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
PHONE: (416) 890-8566
FAX: (416) 890-8575

9-Oct-91

R.Dillman

42 Springbank Drive
London, ON
N6J 1E3

Attn: R.Dillman
Project:

PO #:

Received: 3-Oct-91 14:58

Job: 911334

Status: Final

Sample	Au FA/AA1 ppb
78057	17
78058	16
78059	62
78060	6
78061	7
78062	9
78063	8
78064	3
78065	160
78066	5
78067	270
78068	836
78069	8
78070	65
78071	5
78072	7
78073	885
78074	970
78075	327

Abbreviations:

Parameters:

Mo : Molybdenum

BARRINGER LABORATORIES

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MISSISSAUGA, ONTARIO
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31-Oct-91

R.Dillman

42 Springbank Dr.
London, ON
N6J 1E3

Attn: R.Dillman
Project:

Received: 29-Oct-91 08:43

PO #:

Job: 911354 Status: Final

Sample	Au FA/AA1 ppb
78076	6
78077	14
78078	10
78079	285
78080	518
78081	6
78082	530
78083	847
78084	136
78085	450
78086	495
78087	3200
78088	3910
78089	11
78090	45
78091	21600
78092	29
78093	203
78094	7
78095	1800
78096	2
78115	37
78116	5970
78117	6020
78118	124
78119	26

BARRINGER LABORATORIES

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9-Oct-91

R.Dillman

42 Springbank Drive
London, ON
N6J 1E3

Attn: R.Dillman
Project:

Received: 3-Oct-91 14:58
PO #:

Job: 911334 Status: Final

Sample	Mo ICAP ppm	Cu ICAP ppm	Pb ICAP ppm	Zn ICAP ppm	Ag ICAP ppm	Ni ICAP ppm	Co ICAP ppm	Mn ICAP ppm	Fe ICAP %	As ICAP ppm	Au ICAP ppm	Hg ICAP ppm	Sr ICAP ppm	Cd ICAP ppm	Sb ICAP ppm	Bi ICAP ppm	V ICAP ppm	Ca ICAP %
78067	11	78	7	68	0.1	58	118	497	5.70	26900	<3	<3	20	1	10	6	85	0.32
78068	14	18	6	51	0.1	44	27	439	4.85	47300	3	3	12	1	12	6	49	0.53
78073	11	196	15	37	1.0	62	92	191	6.31	24100	<3	3	8	1	5	8	53	0.19
78074	11	223	43	81	0.9	82	53	302	8.25	12300	<3	<3	12	1	6	4	102	0.17

vi.

Sample	P ICAP %	La ICAP ppm	Cr ICAP ppm	Mg ICAP %	Ba ICAP ppm	Ti ICAP %	B ICAP ppm	Al ICAP %	Na ICAP %	Si ICAP %	W ICAP ppm	Be ICAP ppm
78067	0.07	14	32	1.16	112	0.12	579	1.88	0.16	0.01	9	2
78068	0.06	10	39	0.91	103	0.06	522	0.92	0.10	0.01	20	1
78073	0.07	8	37	0.53	63	0.06	1020	1.30	0.09	0.01	6	1
78074	0.07	20	27	0.96	72	0.11	889	2.07	0.08	0.02	129	2

BARRINGER LABORATORIES

5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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21-Oct-91

R.Dillman

Page: 1
Copy: 1 of 2

Apt#3,42 Springbank Dr.
London, ON
N6J 1E3

Attn: R.Dillman
Received: 16-Oct-91 11:19
Project:
PO #:

Job: 911341 Status: Final

Sample	Au FA/AA1 ppb
78101	1790
78102	1700
78103	1730
78104	870
78105	11500
78106	2410
78107	37
78108	9
78109	14
78110	5
78111	7
78112	7380
78113	68
78114	12500

Abbreviations:

Parameters:

Au : Gold

Methods:

FA/AA1 : Fireassay/Atomic Absorption(1 assay ton)

Units:

ppb : parts per billion

Job approved by:

Signed: ....
Margaret E. Danczíger
Supervisor, Geochemistry/Fire Assay Services

BARRINGER LABORATORIES

5735 McADAM ROAD
MISSISSAUGA, ONTARIO
CANADA L4Z 1N9
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31-Oct-91

R.Dillman

Page: 2
Copy: 1 of 2

42 Springbank Dr.
London, ON
N6J 1E3

Attn: R.Dillman
Project:

Received: 29-Oct-91 08:43
PO #:

Job: 911354 Status: Final

Sample	Au FA/AA1 ppb
78120	196
78121	2130
78122	5
78123	5120
78124	69
78125	2010

Abbreviations:

Parameters:

Au : Gold

Methods:

FA/AA1 : Fireassay/Atomic Absorption(1 assay ton)

Units:

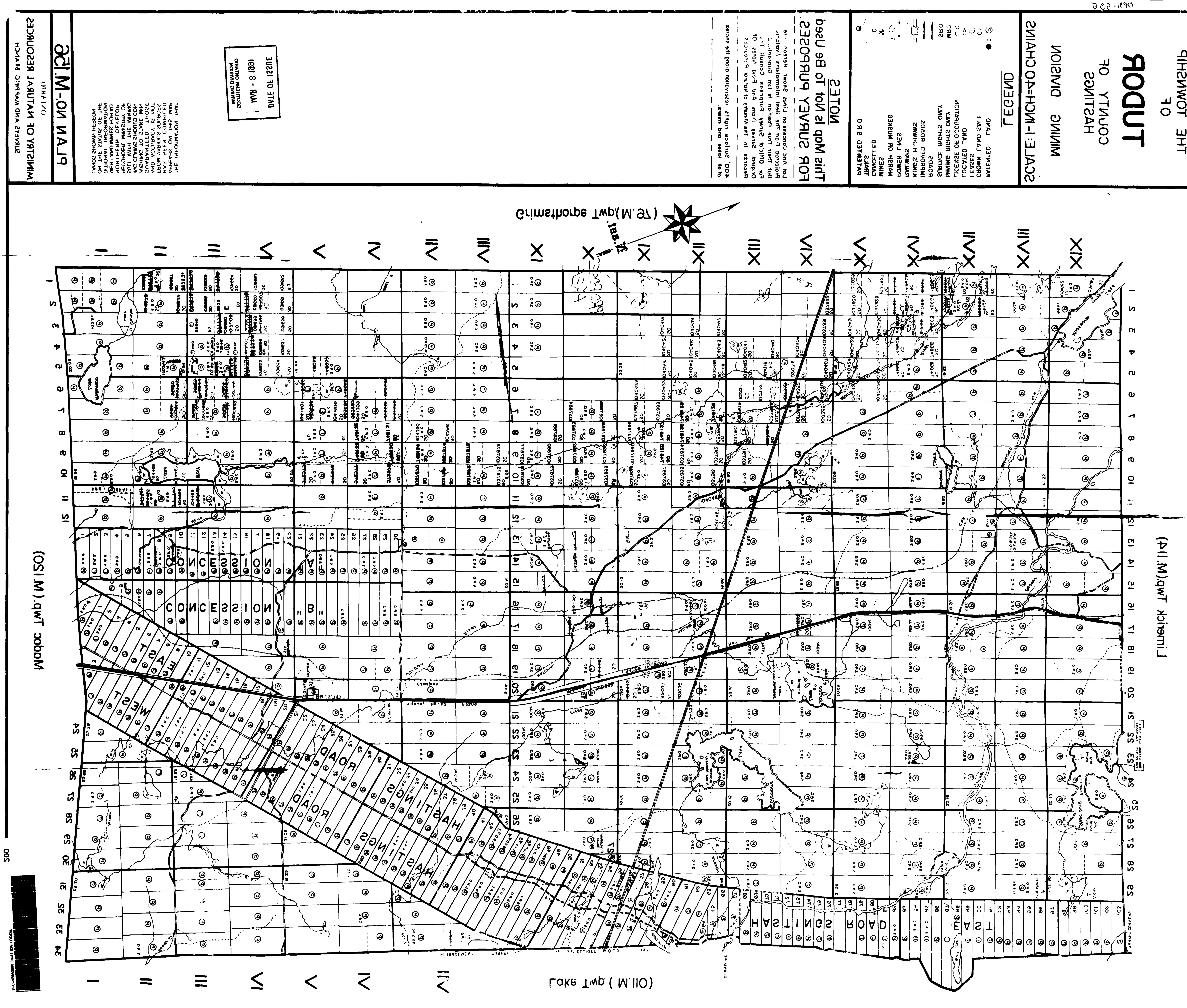
ppb : parts per billion

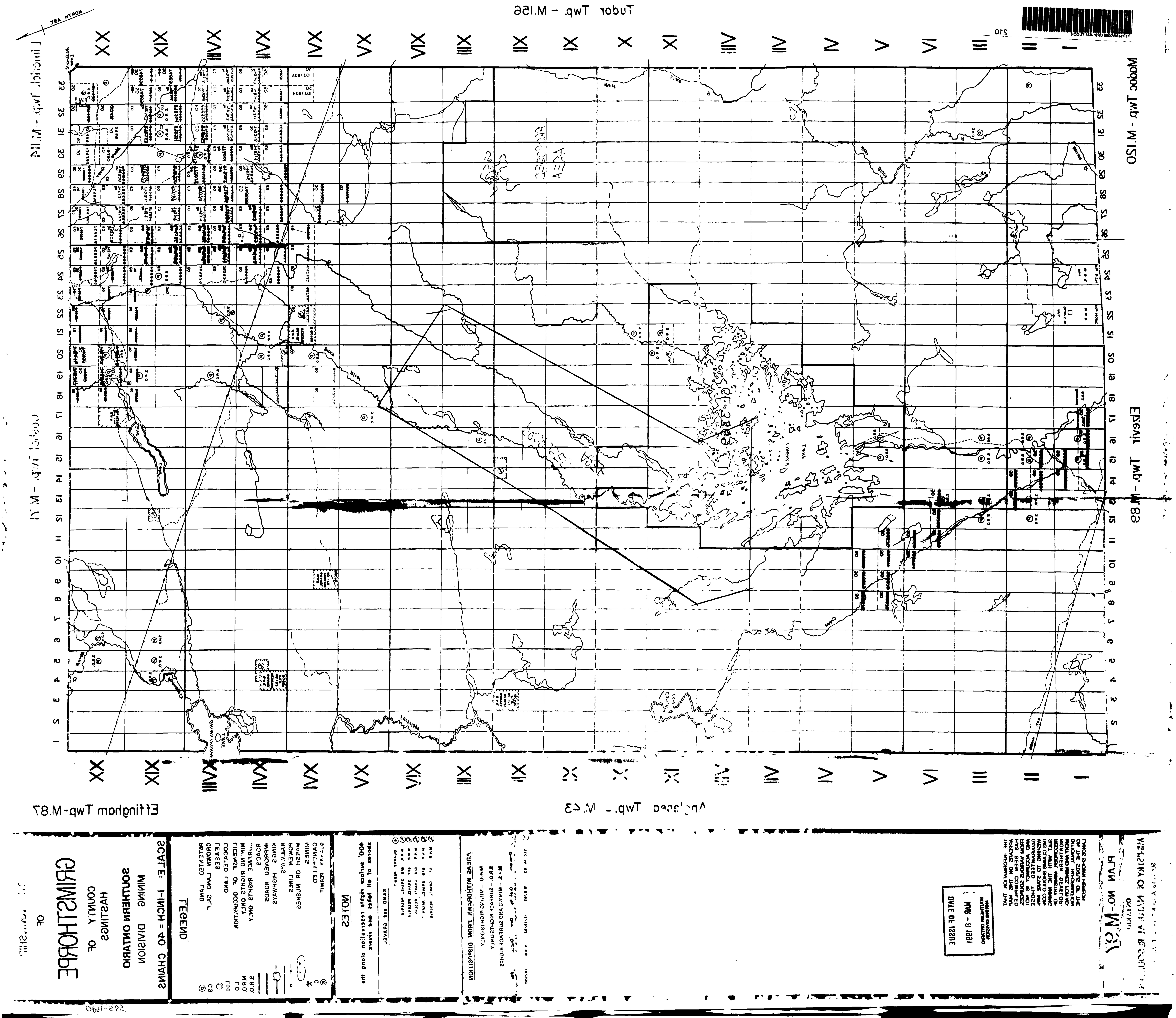
Job approved by:

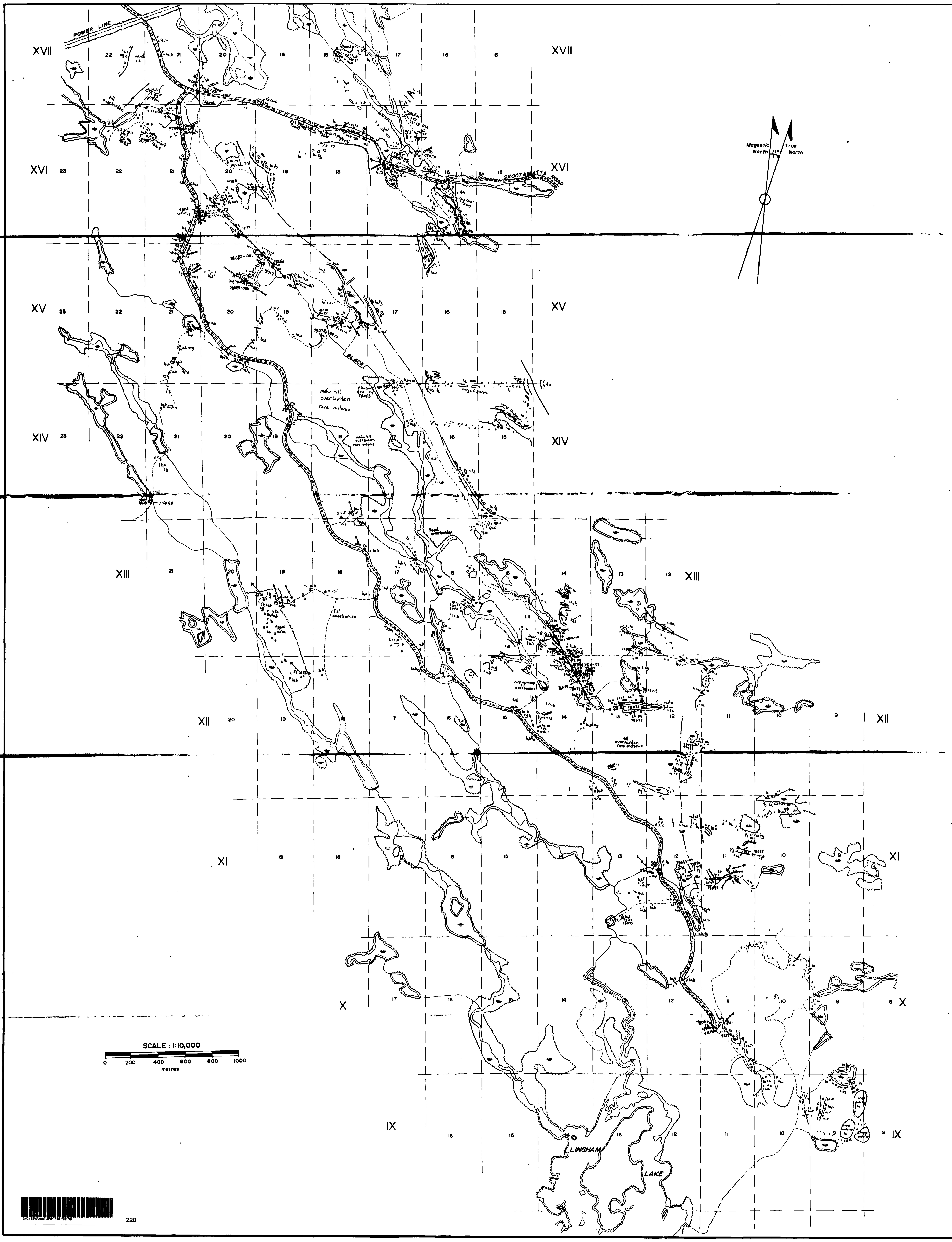
Signed:
....
Margaret E. Dancziger
Supervisor, Geochemistry/Fire Assay Services

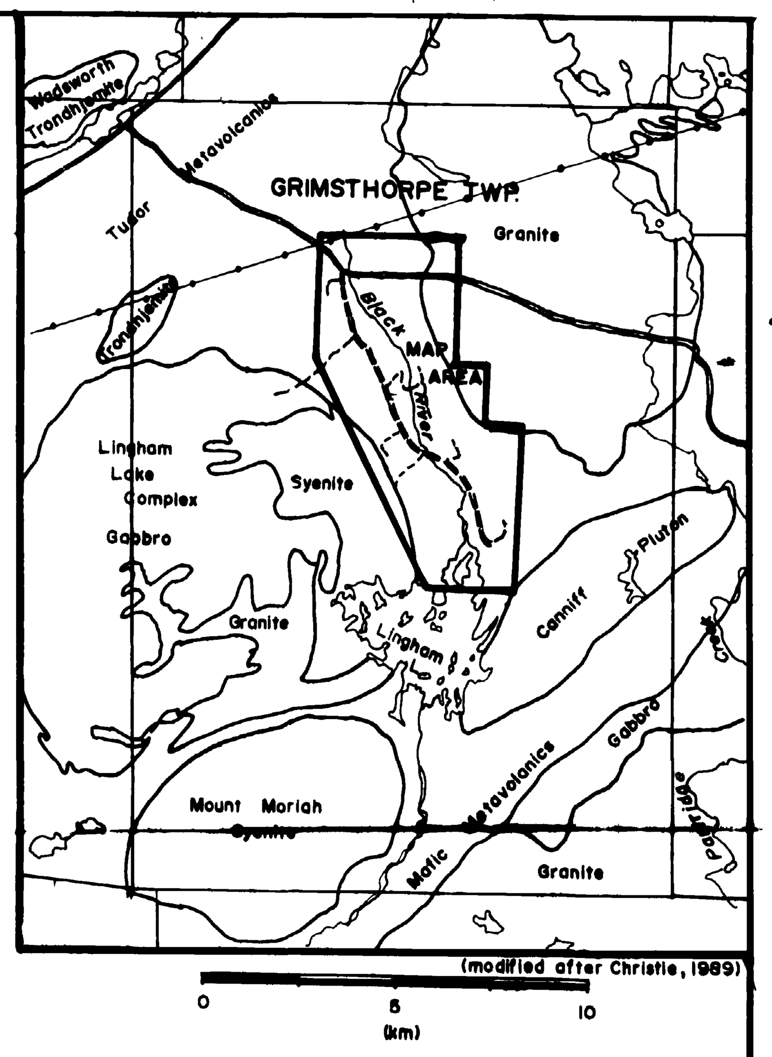
APPENDIX III.
MAPS

Map 1: Geology of Grimsthorpe Twp.
Map 2: Geology of Claim Group
Map 3: VLF Survey
Map 4: Magneties Survey


THE TOWNSHIP OF TUDOR
COUNTY OF HASTINGS
MINING DIVISION
SCALE: 1-INCH=40-CHAINS
LEGEND
NOTES
This Map is Not To Be Used FOR SURVEY PURPOSES.
DATE OF ISSUE MAR - 8 1991
PLAN NO. M.156
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH
Grimsthorpe Twp.(M.97)
Limerick Twp.(M.114)
Madoc Twp.(M.120)
Lake Twp.(M.110)
CONCESSION "A"
CONCESSION "B"
HASTINGS ROAD
HASTINGS ROAD EAST
HASTINGS ROAD WEST


Tudor Twp. - M.156
Effingham Twp-M.87
Anglesea Twp. - M.43
Elzevir Twp. - M.89
Limerick Twp. - M.114
Lake Twp. - M.71
Madoc Twp. - M.120
PLAN NO. M.67
DATE OF ISSUE
MAR - 8 1991
GRIMSTHORPE
COUNTY OF HASTINGS
SOUTHERN ONTARIO MINING DIVISION
SCALE: 1-INCH = 40 CHAINS
LEGEND
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
SAND and GRAVEL
LAKE
RESERVE AREA





LEGEND

4 **INTRUSIVE ROCKS**

- a Granite
- b Granite or aplite dyke

3 **Fe–CARBONATE RICH ROCKS**

2 **SCHISTS**

- a Mafic schist
- b Sedimentary schist

1 **MAFIC METAVOLCANIC ROCKS**

- a Amphibole–poor mafic metavolcanics
- b Amphibole–rich mafic metavolcanics
- c Agglomerate

SYMBOLS

○ x	outcrop	sil.	silicification
•	float	py	pyrite
╲	contact	As	arsenopyrite
	schistosity + dip	cpy	chalcopyrite
	foliation + dip	mag	magnetite
cg	coarse grained	(Au)	gold
mg.	medium grained		quartz vein
fg.	fine grained		shear zone
chl.	chloritized		hill
	clearing		swamp
	road	▪	cabin
▲ S.VLF	VLF conductor: S.– strong, M.–moderate, W.– weak		
	fault		

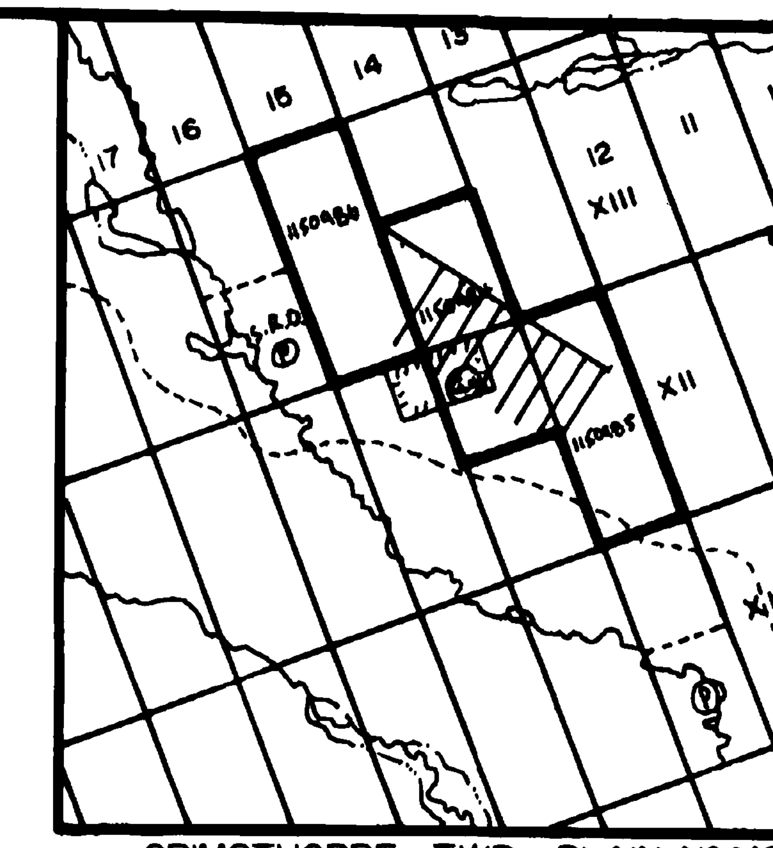
MAP I

GEOLOGY

GRIMSTHORPE TWP.
ONTARIO

Date: OCT. 1991 | Drawn by: RJD

220



GRIMSTHORPE TWP., PLAIN N° M97
HASTINGS COUNTY, ONTARIO

LEGEND

5 Granitic dyke

4 Marble

3 Sheared + silicified rock

2 Schists
- a mafic schist
- b sedimentary schist

1 Mafic metavolcanics
- a basalt
- b amphibolitized basalt
- c agglomerate

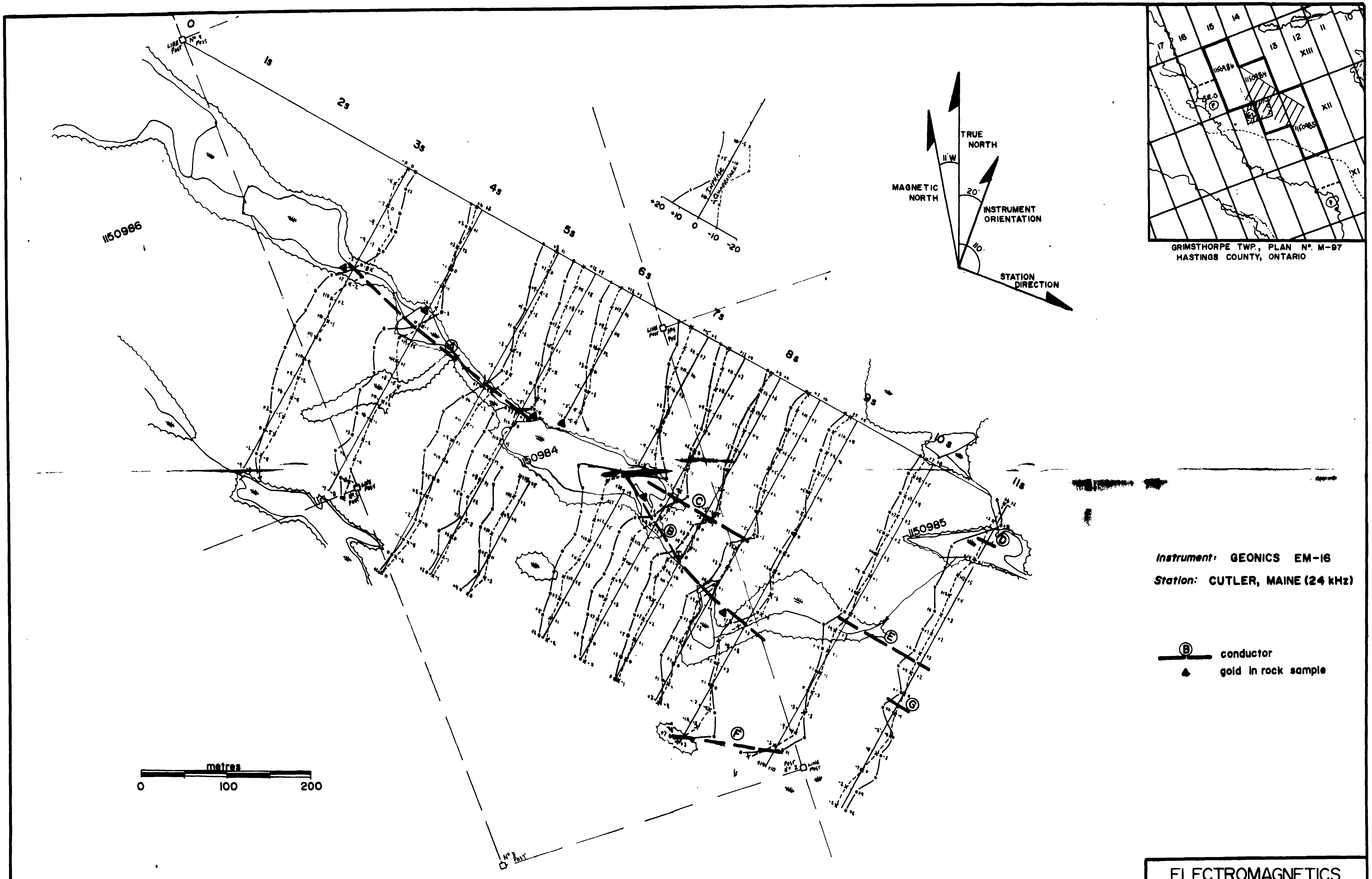
SYMBOLS

outcrop		78078	sample number
RC	rubble crop		clearing
	float		pond
	foliation + dip	BD	beaver dam
	schistosity + dip		swamp
	strike + dip of vein		trail
As	arsenopyrite	py	pyrite
po	pyrrhotite	mag	magnetite
	contact		hill top, slope

GEOLOGY

GRIMSTHORPE TWP.
ONTARIO

DRAWN BY RJD	MAP N° 2
DATE DEC. 1991	SCALE 1:2,500

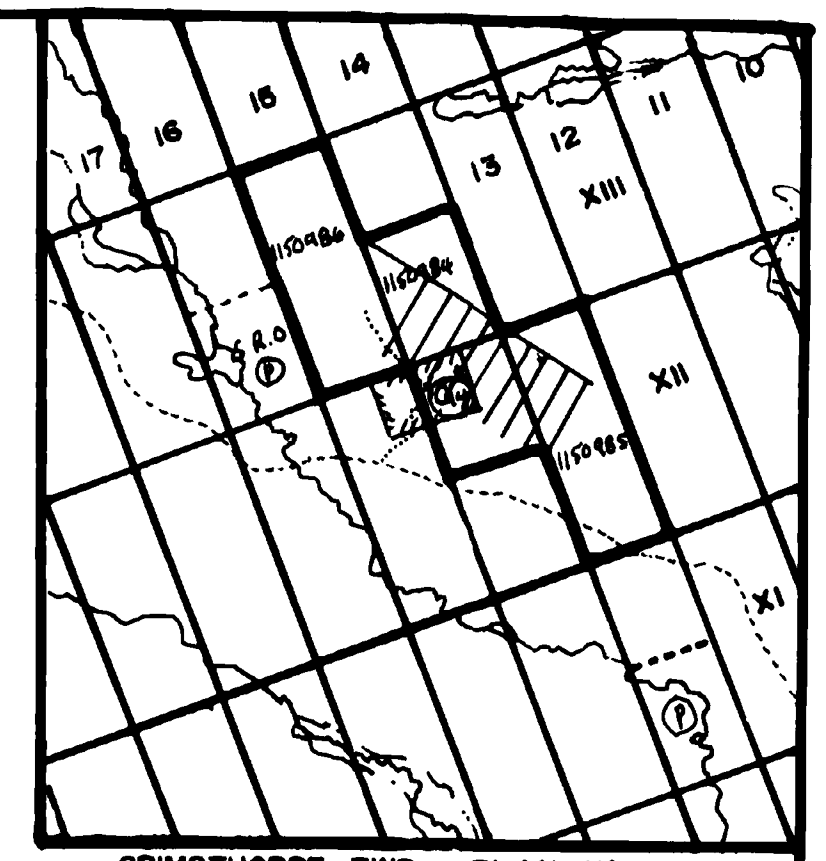


ELECTROMAGNETICS

GRIMSTHORPE TWP.
ONTARIO

DRAWN BY RJD	MAP Nº. 3
DATE DEC. 1991	SCALE 1:2,500

240



GRIMSTHORPE TWP., PLAN No. M-97
HASTINGS COUNTY, ONTARIO

ALL VALUES BASED AT:
56,000 GAMMAS

— — anomaly

MAGNETICS	
GRIMSTHORPE TWP. ONTARIO	
DRAWN BY RJD	MAP No. 4
DATE DEC. 1991	SCALE 1:2,500