SUMMARY REPORT
1985 STROUD EXPLORATION PROGRAM
LECKIE PROJECT, ONTARIO

See next page

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P R E F A C E

The original scope of this report was to document, discuss and evaluate all results of the 1985 (86) exploration program (phases I and II) carried out by STROUD RESOURCES LTD. on the LECKIE property.

Due to a four week delay of the drilling operations (phase II of the program) caused by the drilling-contractor and owing to a severe job-related car accident on December 17, 1985, which hospitalized the author, only a summary report is provided instead. The results of the 2ooo feet (phase II) drilling program are not discussed, except for the first 4oo feet (holes L 85-o1, -o2, o2A), which were logged by the author.

Since most of the drilling results are unknown or not known in detail at the time of writing this report, it is obvious that certain related comments are preliminary to a final analysis to be compiled seperately.

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FIGURES

DRAWINGS (MAPS) SEPERATE FOLDER

RECORDS, AVAILABLE AT STROUD LIBRARY

4 COMPILATION MAPS, LABORATORY CERTIFICATES, EXPLOREX GEOPHYSICAL REPORT, MEMORANDUM B.STARKE TO G.E.C., DRILL-LOGS/X-SECTIONS OF DDH L-85-01/ -02/ -02A.

1.o INTRODUCTION

1.1 TERMS OF REFERENCE

The preparation of the final report of Stroud's 1985 exploration program was commissioned to Bertram V. Starke, Consulting Geologist of Oakville, Ontario by Stroud Resources Ltd. in a verbal agreement, dated September 1985. As a result of a car accident, which occurred on December 17, 1985, Starke became hospitalized and was unable to continue field work. It was subsequently agreed upon verbally by George E. Coburn, president of Stroud Resources Ltd. and Starke that the latter submit a summary final report, which would exclude discussion of drilling results obtained after December 17, 1985.

1.2 SCOPE OF WORK

The scope of this report is to present a summary of results, obtained from the 1985 field program on the Leckie property. As mentioned already above, the discussion of most of the drilling results is excluded.

It is a further objective of the report to list all documentation obtained and prepared, to attach all documentation on hand and to indicate the location of other (not attached) documents.

1.3 ACKNOWLEDGEMENTS

Phase I of the field program (surface exploration) was carried out jointly by B.V.Starke (Stroud) and D.Villeneuve (Lacana), assisted by D.Boyd and A. Charette (Stroud), who sampled and washed trenches.

The phase II drilling program, which is presently ongoing, was initially supervised by B.V.Starke, who also logged the core of the first 3 holes. After the car accident, B.V.Starke was replaced by D.Ville-

neuve (Lacana).

Linecutting and a combined Mag/VLF survey over the property was carried out by Explorex of Val d'Or. Drafting was undertaken by T.Gammage and R.Starke. Trenching by dozer and mechanical shovel and the preparation of drill-sites was done by local contractors. The drilling program was contracted out to Norex Drilling Ltd., Porcupine/Ont.

The project was initiated and supervised by George E.Coburn, president of Stroud Resources Ltd. L.Barker, chief geologist of Lacana Mining Corp., participated in the supervision of the program.

1.4 LOCATION

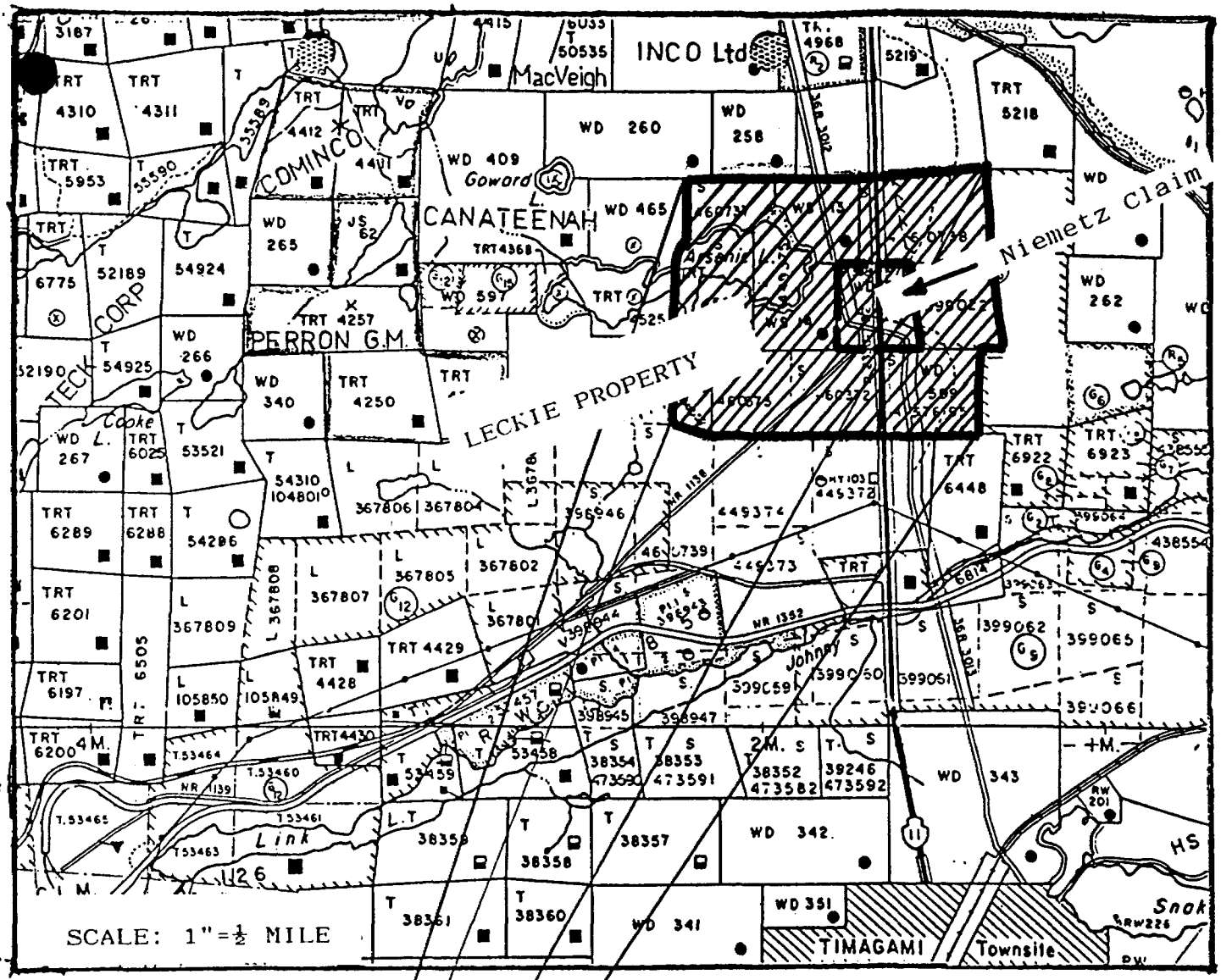
The Leckie gold mine property is located approximately 3 km north of Temagami, Ontario. Access is by highway 11.

1.5 LAND STATUS

The Leckie property consists of 12 contiguous claims, which cover an area of approximately 2.8 square miles or 7.3 square km.

Stroud Resources Ltd. holds two different options on the property, one comprising 9 unpatented (S 399022, S 437695, S 438552, S 449375, S 460372, S 460373, S 460736, S 460737, S 460738) and 2 patented (WS 13 and WS 14, registered as parcel 2328) claims and one comprising the unpatented "Niemetz" claim S 398978.

Details of the option agreements may be obtained from the Stroud offices in Toronto.



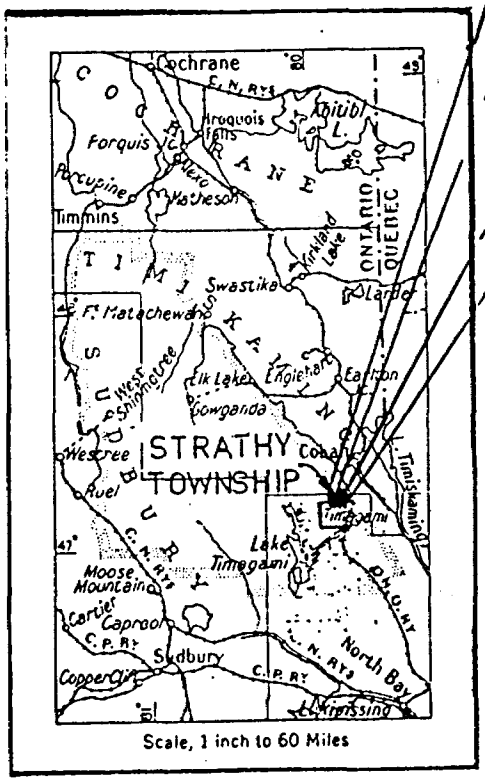


FIGURE 1

LECKIE PROPERTY (including Niemetz Claim)

Location Map

2.0 PREVIOUS EXPLORATION RESULTS

2.1 SUMMARY

The Leckie property is named after Major R.G. Leckie, who was the owner of the Little Dan gold occurrence (# 2 zone) at 1905.

During an Early Period (1900-1910) exploration and mining-development centered on the # 2 (also Little Dan, Sterling Shaft vein) and the # 3 zones.

No detailed records are available from both the # 2 and # 3 zones.

The # 2 zone has been descrribed as a N - S to N 50 E striking arsenopyrite-rich vein with an explored length of 75 to 90 feet and a width of 0.5 to 4 feet. Surface trenching and pitting was undertaken. UG-development consisted of a 56 foot deep vertical shaft with some 90 feet of lateral development. The combined average surface and UG grade over a 50 foot length (sample size unknown) is reported to be 0.21 oz Au over 4' mining width (undiluted?). The vein is considered to be open at both ends. Some 270 tons of ore were shipped in 1909. Exploration for the lateral extension of the vein was quite limited: Some trenching at surface and 3 (or 4) inclined DD-holes (with no records available). The prospect was then abandoned and virtually no further work has been undertaken on the # 2 zone since.

The # 3 zone is an aresenopyrite-pyrite vein parallel and easterly to the (at the time unknown ?) # 1 zone. Over the surface-exposed length of 175 feet and an average width of 2.3 feet sampling established an average grade of 0.26 oz Au per ton. UG work consisted of the sinking of a 55° incline to the 50 foot level, where some 50 feet of drifting and crosscutting was undertaken. Limited surface trenching and some shallow drilling from the surface was later carried out by Niemetz.

A second period of exploration followed from 1930 through 1937, which prolonged to 1948. Work was concentrated on the # 1 zone.

The # 1 zone is the most extensive and best explored zone of gold mineralization of the Leckie property. A zone of parallel pyrite, arsenopyrite, pyrrhotite and chalcopyrite containing veins strikes N 14 W, dips 50° to 60° W and has been explored at surface and UG over a length of plus 1100 feet. UG work was quite extensive and consisted of the sinking of a vertical shaft to the 500 foot level, and some 5000 feet of drifting and crosscutting on five levels. The available records include an assayplan of the UG workings, one X-section and limited drillhole data. Some exploration drilling from surface and UG was undertaken, but details of core and logs are unavailable. Various ore reserve calculations (with no records available) have been attempted, indicating reserves of between 9000 to 30 000 oz Au with an average grade of about 0.22 oz Au/t and a mining width of 5 to 6 feet average. The vein-zone is considered to be open at both ends and at depth. There was virtually no mining undertaken.

Recent exploration since 1950 was rather limited. Some shallow drilling and trenching was undertaken on the Niemetz claim, testing the southerly extension of the # 1 zone and the # 3 zone. Some drill logs are available. Sampling and drilling results were interpreted to be poor, and no further detailed work was attempted on the Niemetz claim. In addition, some geological mapping on the Niemetz claim and a ground mag and EM survey was undertaken over parts of the property, which did not provide significant additional information.

Previous exploration results include the discovery of the # 4 zone and the highway-showing, which are of little economic interest.

In conclusion, previous exploration on the Leckie property has been quite extensive during the periods 1900-1910 and 1930-1948 and subsequently resulted in the discovery of substantial Au mineralization of the # 1, but also the # 2 and # 3 zones. Virtually no exploration

has been done since, except for some very limited work on the Niemetz claim.

2.2 COMPILATION

To provide a base for geological mapping and prospecting of the property, 2 geological and two mag maps (scales 1"=100' and 1"=200') were compiled from Penrose (1948, 1963), Hollinger (1977) and Fyon (1983) records. These maps are available at the Stroud offices.

One result of the compilation work, which was later confirmed by Stroud's field mapping, is the recognition of both the # 1 zone mineralization and the main zone at Niemetz belonging to the same trend. With other words: The main mineralization at Niemetz is the southerly extension of the # 1 zone mineralization.

3.0 REGIONAL GEOLOGICAL SETTING

The area is part of the Abitibi greenstone belt. G. Bennett (1978) describes the regional geology in detail. The main structural feature of the Northeast Temagami area is an east-north east trending syncline within the metavolcanic - metasedimentary pile, which is modified by the emplacement of both Na-rich calc-alkalic trondhjemites and K-rich alkalic granodiorites and monzonites.

80 % of the local gold occurrences are concentrated in an area of approximately 12 square miles around Arsenic Lake, which includes also the Leckie property. This area is characterized by a wedge of iron-rich tholeiites (Leckie) and the presence of sulphide facies iron formation (Cominco and Perron gold properties). To the west of Arsenic Lake (and the Leckie property) Bennett (1978) notes the inter-fingering of iron formation and basaltic flows, and even brecciation and mixing of pillows and iron formation in that area. This particular area is the interface of an active volcanic area to the north with repeated accumulation of mafic flows and a stable area to the south, which was undergoing erosion.

The preference of Au deposition in competent units such as Fe-rich tholeiites and banded iron formation has been observed elsewhere in the Abitibi and other Archean greenstone belts, such as in Western Australia (R.R. Keays, 1982),

L.S. Jensen (pers. comm.) suggests that the regional geological context at Leckie may resemble the Kirkland Lake gold deposits area, whereby gold deposition occurs close to the interface of volcanic material accumulated at the lower (distant) flanc of the volcano with the more distant accumulation of volcaniclastic sediments including iron formation. The "stratiform" major structural breaks, which control the Au deposits at Kirkland Lake and elsewhere in the Abitibi are also present in the area under discussion (Link Lake fault). The Leckie gold mineralization, however, is controlled by cross-faults.

4.0 SURFACE EXPLORATION PROGRAM RESULTS (PHASE I)

The contracted linecutting, magnetometer and VLF surveys were completed prior to the main exploration program, which commenced on September 11 and was completed on October 12, 1985.

4.1 LINECUTTING

A grid was established over the whole property, with a baseline running N 30 W and parallel to the # 1 mineralized zone. Grid lines are 1oo or 2oo feet apart with stations at 1oo feet.

4.2 GEOPHYSICAL SURVEYS

A Mag- and VLF survey was conducted over the property (except for Arsenic Lake). Details may be obtained from a seperate report by Explorex.

4.2.1 MAGNETOMETER SURVEY

The total magnetic field contours reveal a NW-SE trending diabase dyke (to the east and north of Arsenic Lake), which is otherwise difficult to distinguish in the field. Some Mag lows may be associated with the # 1 zone of mineralization, but the contours are insufficient in detail to be of much use. In contrast, a previously conducted Mag-survey by Hollinger Mines (1977) over parts of the Leckie property (refer also to geophysical compilation maps), provides much more information. In particular, the Hollinger survey defines Mag lows, which are associated with the # 1 and # 3 zones. Mag-lows in

fault-related gold deposits in the Timmins area are not uncommon. Alteration and destruction of magnetite or removal of iron may be the cause. The Hollinger survey also shows a clear relationship to the stratigraphy in the southern part of the property: WNW-ENE striking Mag contours, which correspond with the stratigraphic trend and may represent different lithologic units. The Mag trends in the areas to the north-east of Arsenic Lake are N-S or SW-NE and unrelated to the prevailing stratigraphic trend. The cause may be gabbroic intrusions.

Profiles of the magnetic gradient (Exploraex survey) display a strong relationship with powerlines and Trans Canada pipelines.

4.2.2 VLF SURVEY

Fraser contouring of VLF profiles established some anomalous zones, some of which might be of significance.One N-S trending anomaly south of Arsenic Lake corresponds with the # 2 zone. The same zone may continue to the north of Arsenic Lake. A previous Hollinger survey had also located 2 weak VLF anomalies on Arsenic Lake, possibly linking both anomalies to the south and north of the lake described above. Drilling and further surface work might evaluate the real significance of these anomalies. For further details reference is made to the seperate Explorex report.

4.3 REGIONAL GEOLOGY, PROSPECTING AND SAMPLING

4.3.1 LITHOLOGIES AND WHOLE ROCK ANALYSIS

MAFIC METAVOLCANICS

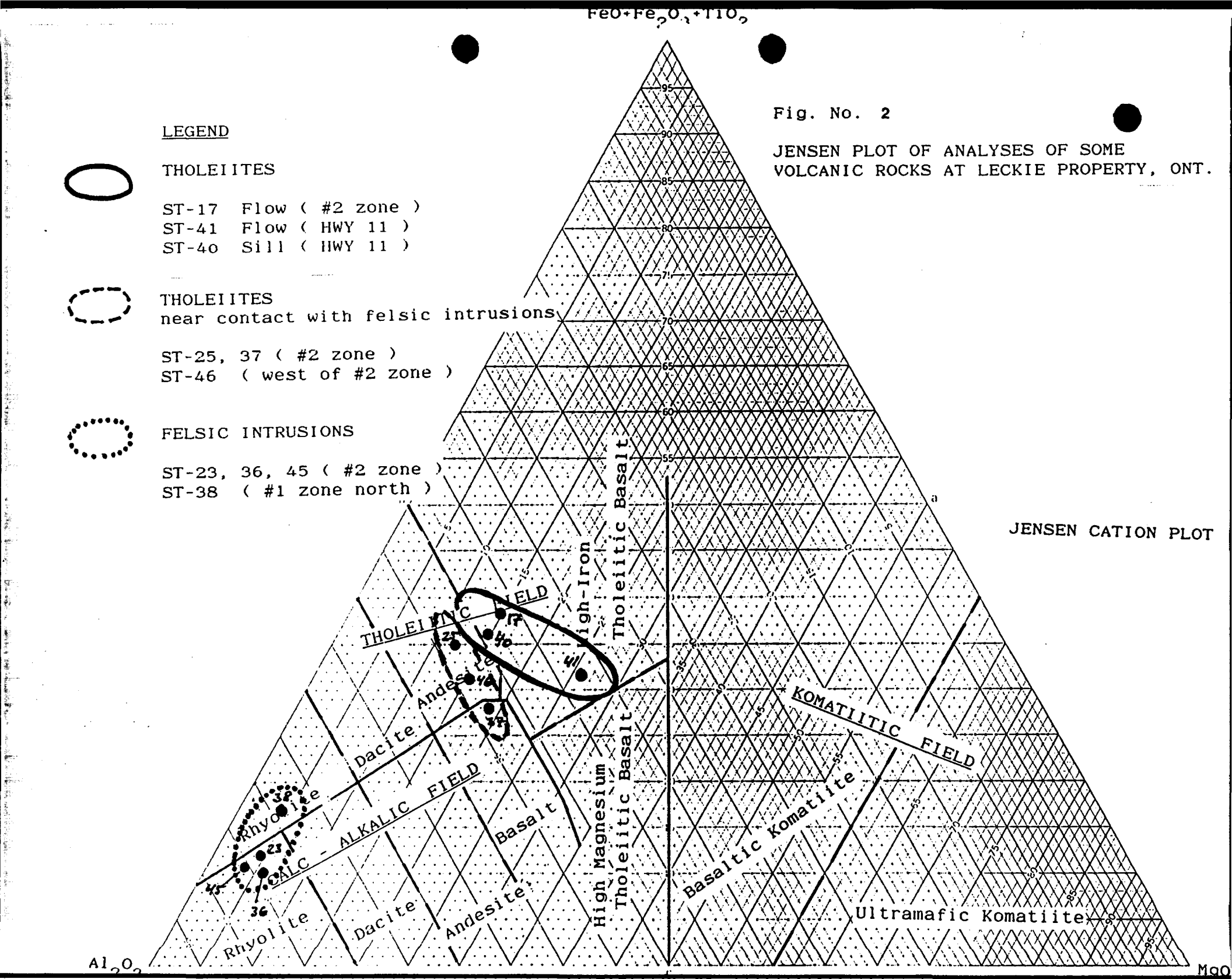
More than 90 % of the rocks on the Leckie property belong to this category. Rocks classified in the field as mafic metavolcanics are greyish-green to dark grey-green when fresh and pale grey to greenish-grey when weathered.

The bulk of these rocks are massive or pillowed basaltic flows, but some coarse grained gabbroic sills are probably also present, and are particularly prominant to the east of Arsenic Lake.

A Jensen and AFM plot of the major oxide constituents of some rock-samples determine them as iron-rich basaltic tholeiites. Other samples, which have probably been altered by felsic intrusions, plot in the andesite tholeiitic field (refer to figs. 2 and 3). The few whole-rock analyses do not permit a complete picture, but it can be assumed that the bulk of the mafic flows are Fe-rich basaltic tholeiites. Andesites may be present in a minor proportion. Field evidence suggests also the presence of some interbedded flows with a dacitic (?) composition, particularly in the south.

Massive flows are predominant in the northern part of the property, whereas pillowed flows are prevalent in the south. The selvages of pillows are commonly filled with highly brecciated and contorted hyaloclastic fragments. Variolitic metabasalt is associated with the pillowed flows and occurs in distinctive units, which may be used as "marker horizons", a fact which was already recognized by A.Fyon, 1983 (and also by Bennett, 1978 ?).

Other varieties include flow-top breccias, other breccias, vesicular basalt and associated tuffs.


FeO+Fe2O3+TiO2
LEGEND
THOLEIITES
ST-17 Flow (#2 zone)
ST-41 Flow (HWY 11)
ST-40 Sill (HWY 11)
THOLEIITES
near contact with felsic intrusions
ST-25, 37 (#2 zone)
ST-46 (west of #2 zone)
FELSIC INTRUSIONS
ST-23, 36, 45 (#2 zone)
ST-38 (#1 zone north)
Fig. No. 2
JENSEN PLOT OF ANALYSES OF SOME VOLCANIC ROCKS AT LECKIE PROPERTY, ONT.
JENSEN CATION PLOT
THOLEIITIC FIELD
CALC - ALKALIC FIELD
KOMATIITIC FIELD
High-Iron Tholeiitic Basalt
High Magnesium Tholeiitic Basalt
Basaltic Komatiite
Ultramafic Komatiite
Rhyolite
Dacite
Andesite
Basalt
Al2O3
MgO

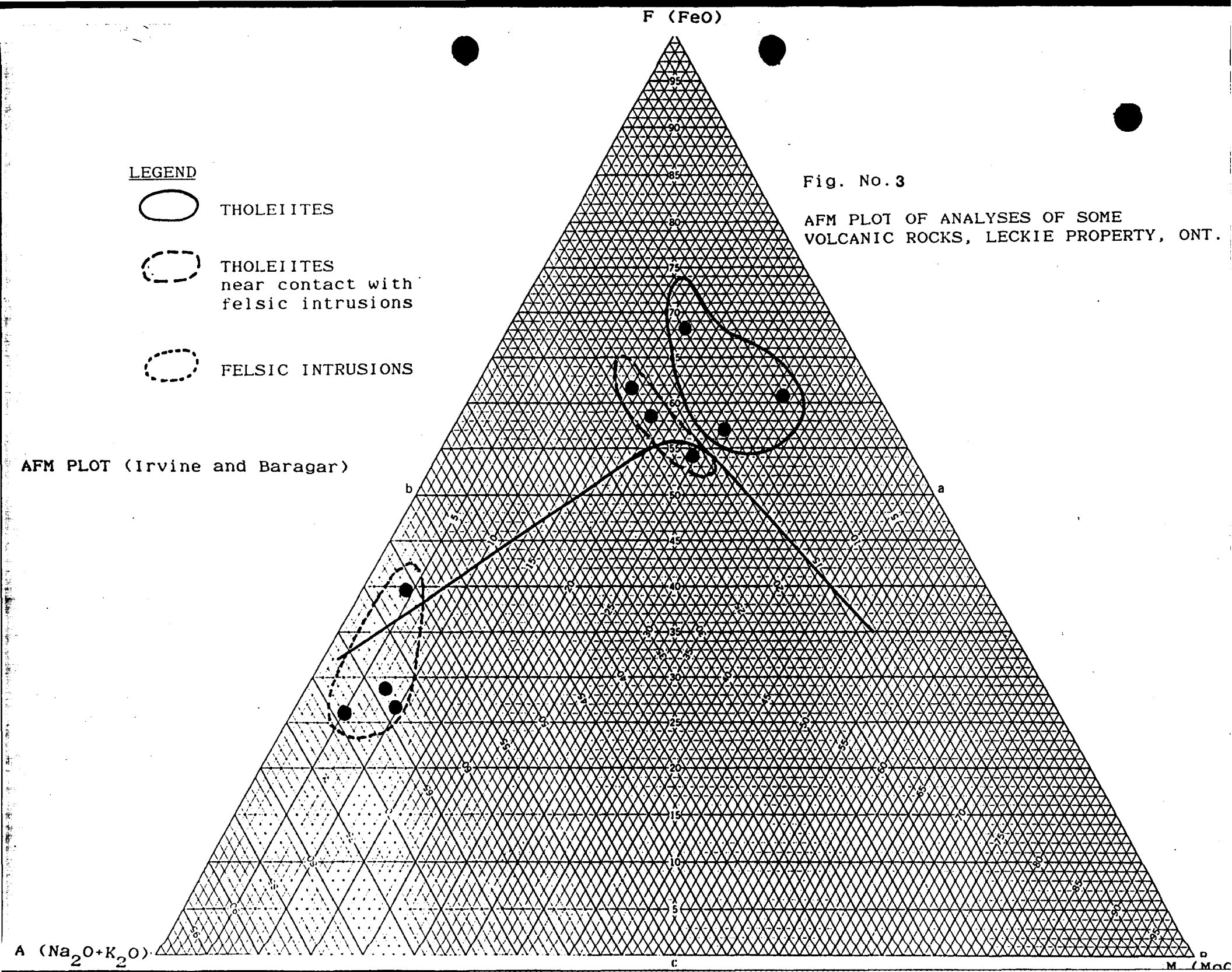


Fig. No. 3

AFM PLOT OF ANALYSES OF SOME VOLCANIC ROCKS, LECKIE PROPERTY, ONT.

FELSIC INTRUSIONS

A number of small quartz-feldspar porphyry dykes (and pipes ?) were observed, which rarely exceed 25 square meters in area extent. The porphyries are fine-grained, pale grey to lightgreen in color on the surface, they contain commonly 2-5 mm Ø quartz-eyes, but rarely feldspar phenocrysts and appear related to faults (# 1 and # 2 zones). They are probably related to the felsic calc-alkaline volcanism in the area. Bennett (1978) suggests a spatial relationship with felsic plutonic rocks.

In comparison with a reported major oxide analysis of one porphyry in Strathcona twp. (Bennett, 1978), the Leckie porphyries contain more K, much less Na and also less Mg (refer to figs. 2 and 3). The different chemistry probably reflects the presence of K-feldspar phenocrysts at Leckie compared with albites reported in porphyries elsewhere in Strathcona twp. Otherwise the whole-rock data is similar.

LATER MAFIC INTRUSIONS

Two types of mafic dykes can be distinguished: lamprophyric and gabbroic dykes, which trend approximately N-S and yet younger diabase of the Sudbury type, which strike NW-SE.

OTHER LITHOLOGIES

An intrusive granite (qtz-monzonite ?) has been mapped along the northern property limit. Some small outliers of Gowganda polymictic conglomerate have been found.

4.3.2 STRATIGRAPHY

The iron-rich tholeiites of the Leckie property form part of a south facing pile of flows, some sills and rarely tuffs. In the western part of the mapped area the strike of the flow-units is almost E-W, whereas in the eastern part the strike is NE-SW. The basal units (in the north) constitute a massive proximal facies to a volcano in the north-west; the younger sequences of the south are of a distal, pillowed facies. The sequence becomes also more intermediate in character with the possible presence of some dacitic flows, when moving south.

The tholeiites have been subsequently intruded by felsic and younger mafic intrusions.

Except for Gowganda rocks and the youngest diabase, all rocks are of Early Precambrian (Archean) age. Top determinations of the volcanic flows were made of pillows, which are quite abundant in the mapped area (refer to regional geological map of the property).

4.3.3 STRUCTURE

The major structural feature is an east-northeast trending syncline. The Leckie property is located on its northern limb.

The large east-northeast trending (strata-parallel) shear-zones, which are significant controls for Au-deposits in other parts of the Abitibi, are present in the Northeast Temagami Area, but have not been observed on the Leckie property. The ore-controlling shear-zones at Leckie are striking N 30 W to N 20 E (# 1, # 2, # 3 zones), and appear to be crossfaults to above-mentioned shears. They are virtually perpendicular to the strike of the syncline.

A second set of fractures, trending N 7o E, is tension-related and controls other quartz and quartz-carbonate gold veins, which are of less economic value (# 4 and # 5 zones, highway-showing).

4.3.4 PROSPECTING AND SAMPLING

During the course of mapping the property, prospecting was undertaken simultaneously with emphasis on expanding the knowledge of the already known mineralized zones. One significant observation is the intensity of previous prospecting (probably during the first exploration phase from 19oo to 191o). The old prospectors focused on targets near contacts with quartz-feldspar porphyries, the presence of quartz and sulphide and carbonate alteration. Many of the "new" showings found are in fact re-discoveries of old finds. In addition, new mineralization was discovered on the recently cut Trans Canada gas pipeline.

All prospecting results have been plotted on the geological map of the property. The most important finds are summarized below:

* # 5 showing: A 3 feet wide pyrite-arsenopyrite bearing quartz-vein is exposed over a length of 2o feet. Strike: N 7o E, dip: 78° south. 2 channel samples across the vein (2o feet apart) assayed 0.264 oz/t Au over 3.3' and 0.044 oz/t Au over 3.5'. The vein is open at both ends (overburden, not trenched). The # 5 zone is located only 35o feet to the east of the # 1 zone A DDH (L 85-06) was originally proposed by the authpr to cut the possible intersection of a # 5 extension with the # 1 zone. This hole was subsequently displaced. Drilling as originally suggested is proposed.

* Northern Extension of # 1 zone: Near grid-intersection BL/L 12 N, grab-samples ST-37 B/C assayed

0.016-0.16 and 0.018-0.07 oz/t Au-Ag in old trenches of massive metabasalt in contact with a porphyry. The presence of pyrite, si and carbonate alteration suggests a possible continuation of the # 1 shearzone to the north.

* Boulders with 1o-6o % py in altered mafic volcanics, near grid-position TL 15oo W/18oo S on the pipeline. Grab-sample DV-35 assayed 0.056 oz/t Au. This occurrence is 12oo' south of the # 2 shaft on trend (geological, VLF-conductor) with a possible extension of the zone to the south.

* # 6 Highway showing was described as a new discovery by Fockler, 194o. The showing is insignificant with only cm-wide quartz filled tension fractures trending N 7o E in carbonated massive tholeiites. 4 channel samples assayed only trace amounts of Au.

* # 7 pipeline-showing near gridlines 3 E/24 S: A 1 to 2'wide pyrite bearing quartzvein at N 7o E (probable). Assayed only 0.007 oz/t Au, but is only 2oo' east of an area of old prospecting activity, which might correspond with a possible southward extension of the # 1 shearzone.

* Near 1 E/24 S: Old pits in altered (car, py, quartz) tholeiites, possibly on trend with a southerly extension of the # 1 zone (?). Further prospecting and sampling worthwhile.

* The # 4 zone was resampled, but assayed only 0.08 oz/t Au over 1.5' (DV-19).

* # 3 East zone on HW 11, with a best assay of 0.06 oz/t Au (grab) indicates the presence of additional mineralization in the footwall (to the east) of the # 3 zone of mineralization.

Other re-discovered old prospects (trenches, pits) with quartzveins, pyrite mineralization and often the presence of quartz-feldspar porphyries are indicated on the geol. map. The prospective areas are mainly to the east of HW 11 and to the south-west of Arsenic Lake.

4.4 GEOCHEMISTRY

Pilot geochemical sampling was carried out to test its application as a prospecting tool. 7o humus (Ao) and 4 B-horizon samples were taken on lines 10 S and 11 S at Niemetz (# 1 extension) and at # 2 zone. All samples were analysed for Au, Ag, As and Cu.

No statistical treatment of the few samples has been performed, but the humus samples show a good correlation with known mineralization (Niemetz), particularly the Au and As values (refer to detailed geology maps of the Niemetz/# 1 extension and the # 2 zones). The B-horizon results were not as useful, but with only 4 samples taken a correct judgement is difficult to make.

In both, the Niemetz and the # 2 zones, geochemical anomalies indicate a continuation of the "prospective zones" beyond the known geological surface observations.

Further geochemical sampling with analysis for Au and As in prospective target areas, where trenching of outcrop might prove difficult due to extensive overburden, is recommended.

4.5 DETAILED GEOLOGY, TRENCHING AND SAMPLING OF MINERALIZED ZONES # 1, # 1 EXTENSION (NIEMETZ), # 2 AND # 3 (NIEMETZ).

One main objective of the phase-I exploration program was the detailed surface evaluation of the most promising known targets.

Trenching and cleaning of old trenches and outcrop was achieved by a Caterpillar DC-7 dozer and a John Deere 690-B mechanical shovel. Final cleaning was performed by washing with the aid of a high-pressure pump (WAJAX MARC-3). The procedure was quite effective on the # 1 zone, where outcrop was dome-shaped and water runs off the sides. But certain areas at Niemetz and particularly at # 2 zone were much more difficult to clean due to more extensive overburden. Smaller and lighter equipment would probably do a better job. Considering the overall satisfactory results of the approach, the program was cost-effective (cost equivalent to 350' of drilling at 15 Can $/foot) and fast (a one week job).

After cleaning, the exposed areas were mapped in detail and sampled. Sampling was undertaken in selected channels across the strike of the mineralized zones by means of a powered Stihl rock-saw or by manual rock-chipping. In addition some representative grab-samples were taken.

The majority of samples were obtained from the # 1 zone, which is by far the best exposed. Sampling at Niemetz and particularly at # 2 was restricted by limited exposure. There was also a restriction in the amount of samples taken by the available budget.

4.5.1 # 1 ZONE (REFER TO MAPS 2, 3, 4)

The sampling results confirm in general previous assay results from Penrose Mines Ltd. (refer to Penrose Mines plan No.5): In the area of old surface trenches around the "crib", the Penrose results

delineate two parallel mineralized veins over a strike length of 15o feet, each having an approximate width of 5' and an average grade from about 0.1 to 0.6 oz/t Au.

The Stroud sampling confirms clearly the westerly (hangingwall) vein, the easterly (footwall) vein was cut in channels P, K and J. Furthermore, the section between both veins and sometimes beyond is weakly mineralized to produce a rather wide low-grade mineralized zone: In the central area (channels V, R/P, K and J), the average grade over a width from 2o to 28.3 feet is from 0.07 to 0.21 oz/t Au(uneut), the strike of this zone being 14o feet. The best intersection is channel R/P, which assays 0.21 oz/t Au over 28.3 feet.

A 3o feet northerly extension of the hangingwall-vein was discovered: 0.358 oz/t Au over 4' and 0.143 oz/t Au over 6' respectively (channels V, W).

Sampling to the south of the central zone was quite limited due to lack of exposure. Intersections of 0.4 oz/t Au over 8' (!) in channel A, as well as high Ag-values (proximity to Au mineralization ?) in channel D (1.58 oz/t Ag over 4'), are good indications for the continuation of the mineralization to the south. In fact, the southerly continuation of a low-grade mineralized zone (2o-3o' width) with similar grades as in the central area (see above) is suggested. This low-grade zone contains higher grade sections, which could not be well defined from the very limited amount of sampling available.

In summary, it appears that a zone of low-grade mineralization of a width between 2o to 3o feet with an estimated average grade of about 0.08 to o.1 oz/t Au is quite continuous over the extent of exposed outcrop over a combined strike-length of 38o feet. Within this zone are higher-grade sections, which need further evaluation to better define their shape, extent and continuity.

Again, there appears to be a remarkable continuity as far as the low-grade zone of mineralization is concerned. This zone is accompanied

by silica, sulphide and carbonate alteration, as has been well documented by D. Villeneuve during mapping of the # 1 zone.
The distribution of the higher-grade zones is more erratic.

The Au-mineralization is related to arsenopyrite, pyrite and chalcopyrite. The spotty occurrence of arsenopyrite, as observed by Villeneuve, does not necessarily imply a similar erratic distribution of gold. Au appears associated with aspy, py and cpy, but always with quartz. The UG plan and drilling results (also Niemetz' drilling) show a much more regular distribution of Au and aspy (drilling) as has been observed on surface at # 1. This comment has been made to emphasize that caution should be exercised when judging upon the gold distribution, when the database is still limited.

A more detailed report on the # 1 zone has been prepared seperately by D. Villeneuve, who mapped and sampled the zone.

4.5.2 # 2 ZONE (LITTLE DAN, STERLING SHAFT VEIN)
(REFER TO MAPS 5, 6)

The # 2 zone is the least known of all major showings of the Leckie property, but none the less one of the most promising. In comparison with the # 1 zone, alteration (pyrite, silica and particularly carbonate) appears less prominent, but what is striking is a significant brecciation of the ore and ore host-rock. The Au mineralization is closely related to arsenopyrite and possibly pyrite, vein-quarz and a quartz-feldspar porphyry dyke. The mineralization actually occurs at the brecciated and sheared contact of metabasalt with quartz-feldspar porphyry. A virtually N-S trending faultzone was responsible for the intrusion of a porphyry, which is not more then a few feet in width and therefore difficult to identify on surface, which is covered with considerable overburden. The fault-zone was subsequently reactivated, brecciation took place, which provided an excellent host for hydrothermal Au deposition (together or slightly later than aspy, py and cpy).

The main objective of the # 2 zone surface mapping was to identify the possible strike, dip and extent of the zone. Virtually no work had been done since 1910 and previous descriptions (Savage 1936, Fockler 1940, Dumont 1949 and Szetu 1963) are contradictory, lack detail and describe only a central portion of 90 feet in length between the crib and the shaft.

Trenching from the open pit southward across an assumed N-S trend exposed new mineralization where expected (channels H, I and further south, at sample positions ST-35/44/56 and 57). The zone passes through the open pit, which could only be sampled at the east-side (ST-47 to 49), due to unsafe access. Assay results are disappointing, with only a few grab-samples carrying values in access of 0.1 oz/t Au (ST-31: 0.158, ST-43: 0.132, ST 24/24 B: › 0.3 (all) oz/t Au). It should be emphasized that sampling at # 2 was extremely difficult due to poor exposure of well cleaned outcrop. The mineralized zone is expressed by a topographic depression due to alteration and was water- and dirt filled, which the available equipment was unable to completely remove. Samples are therefore not clean and the poor results have to be treated with caution. Ag/Au ratios at # 2 are frequently › 10, which may indicate removal (?) of Au at surface, or alternatively simply a different population.

The southerly extension of the # 2 mineralization continues beyond line 10 S, where it is assumed to become weak. The zone possibly continues through line 11 S (As soil anomalies) after being offset by a NW-SE set of faults due south for 800 feet to grid-position TL 1500 W/ 1800 S (Refer also to section 4.3.4 of this report). Surface mineralization of this possible # 2 extension (VLF-trend !) is - as far as sampled - poor.

At the open pit the northerly zone-extension is assumed to swing into a N 35 E direction in accordance with a fault-set, which is apparent near the open pit (map 5). After passing through the shaft, the further continuation of the zone is either a continuation in the N 35 E direction, or what is predicted (map 6), a re-alignment into a N-S

trend. Both directions should be drill-tested, as proposed for the phase II-drilling program.

It is obvious that the best potential for additional mineralization is in a possible northern extension, which is completely open and untested. The zone might continue across the lake and somewhere link up with the # 1 zone, where a speculative intersection of both zones would be an excellent structural loci for ore-accumulation. VLF might be of assistance in outlining the possible trends (weak VLF-conductors across the lake found by Hollinger survey). The southerly extension of the zone appears less favourable, but should also be drill-tested.

Au mineralization at # 2 is clearly epigenetic. The volcanic flow-units, consisting from north to south of massive, pillowed (with hyaloclastic selvages) and variolitic tholeiitic basalt, are oblique (almost E-W) to the fault-controlled zones of mineralization.

A correlation of an alteration halo, VLF-conductor, available geochem. anomalies with the # 2 mineralization is attempted on map no. 6

Due to poor exposure virtually nothing is known about a possible width of the mineralization. According to old reports (records of previous surface and UG work are unavailable), the size of the open pit and the trench-intersections, a width of 2 to 15 feet is possible. A 60-80° dip to the west is predicted, based on the dip of the assumed vein passing underneath the crib at the south-end of the open pit. Above predictions have to be verified by drilling.

4.5.3 # 1 ZONE EXTENSION (NIEMETZ), REFER TO MAP 7

On surface the # 1 zone extension (Niemetz) is seperated from the # 1 zone by 600 feet over overburden, mainly swamp. UG drifting of the # 1 zone at the No.2 level (refer to Penrose Mines Ltd. plan No.5) undercuts the northern part of the # 1 extension surface showings. Thus, the # 1 zone and the # 1 extension belong to the same structure and are continuous.

As at # 1, previous surface-exploration at Niemetz has been quite extensive and the strike and extent of the mineralization was more or less known. The objective of resampling after trenching (the old trenches were largely destroyed) and mapping was to obtain a reasonable understanding of grades, distribution of mineralization and the width of mineralized zones.

As at # 1, the mineralization is controlled by a shear-zone. Shearing and fracturing is evident, mainly at 3oo and 33o° east of N. Alteration is similar and a close association of Au with quartz, arsenopyrite, pyrite and chalcopyrite is noted. Sulphide-mineralization extends from L 6.5' to L 1o over some 35o'. The zone has a width of 1o to 4o feet. Assays of trench-samples are poor, only three assays were above or near 0.1 oz/t Au(73321: 0.317/1'; DV-53: 0.235(grab) ; 73323: 0.092 (all) oz/t Au/5'). Again, sampling results are not conclusive, since only one section across most of the zone was cut and other samples were selective. Sampling was restricted by exposure and the budget.

South of line 1o S the mineralization appears to peter out. Anomalous soils and the presence of some pyrite and arsenopyrite (A.Fyon, 1983) indicate a possible continuation beyond line 1o S. This area is largely swamp-covered and poorly exposed.

UG sampling at the No.2 level (# 1 shaft) below the Niemetz mineralization at line 7 S cut consistently values above 0.1 oz/t Au (best intersections are 0.48/1.2'; 1.38/3.7' & 0.17(all) oz/t Au/2.8'). The 5 to 6 feet wide drift only cut one of various parallel veins.

Approximately 1ooo feet of shallow E-core size DD holes were collared by Niemetz on his claim. The logs of 12 holes (Niemetz 3 to 12) are available. The core of these holes is stored at the OGS core-shack in Haileybury. The core is accessible and re-logging is strongly recommended. The approximate location of some holes has been plotted on map 7. Holes 3 to 8 intersect the mineralized zone at 2o to 7o foot depth in the area of lines 7S and 8S. The recovered grades of ore-intersections are poor. Due to core-loss, lack of sampling or incom-

plete intersection of the wide mineralized zone, the results appear of little value and need to be re-evaluated by systematic drilling. Some examples are furnished below:

* DDH-N-3: 41.9-43.4': Lost core within a fault-zone with aspy, py and cpy.
  43.4-45.1': No record .
  46.5-56' : No sample, although presence of aspy,py,cpy.
  58.3-60' : Lost core in zone which assays .17 oz/t Au over 3 feet.

* DDH-N-4: - A 2' intersection of 0.348 oz/t Au from 72-74' was not sampled from 74-79 because of core-loss. The section above 72' was also not sampled. Presence of aspy

  - A section from 15-33' containing up to 15% py and minor aspy was not sampled.

* DDH-N-5: - 12.7-21': No sample, where py, aspy and chert present.

* DDH-N-6: - Incomplete intersection of mineralized zones.

* DDH-N-7: - No sampling record, except from 126.6-129.6': 0.148 oz/t Au over 3.6 feet.

* DDH-N-8: - One assay from 115.4-124.9': 0.06 oz/t Au over 9.5'. No records of sampling above and below this section.

  - 73.5-102.5: No sampling, where py, aspy, cpy & sphalerite are noted.

The logs indicate a continuity in the geology, an abundance of py, aspy and other sulphides at certain intervals.

In summary, the available results indicate the continuation of the #1 zone on the Niemetz claim. Although the obtained grade/width values are much inferior when compared with the # 1 zone proper, the

results are yet incomplete or unreliable and the geology and the persistent presence of pyrite, arsenopyrite and chalcopyrite on surface and in drill-core are favourable.

The prospective zone has been adequately outlined, where drilling is recommended to sample the zone systematically at depth.

4.5.4 # 3 ZONE (NIEMETZ), REFER TO MAP 7

Situated on the Niemetz claim, the # 3 zone runs parallel and to the east (2oo feet east) of the # 1/ # 1 extension zones. Of the three sample lines cut across most of the zone, only one assay on line 14S near HW 11 reported a grade in excess of 0.1 oz/t Au (73176: 0.33 oz/t Au over 2 feet). The zone looks certainly less attractive than all other zones discussed above.

However, one intriguing result is a 0.2 oz/t Au assay over 5 feet, at 5oo foot depth drilled from the 5oo level of the # 1 shaft UG workings (UG Penrose DDH 5-7 flat). Assuming a dip of 65° W, the mineralization at depth corresponds to the # 3 zone mineralization at surface near L6S and channels A/B, where weakly mineralized quartz-filled fractures were mapped.

Above result is quite significant. It implies a possible considerable depth extent of the mineralized zone, a possible improvement of the mineralization at depth and it demonstrates the limitations of the two-dimensional (surface) observations, when an erratic distribution of the mineralization occurs in three dimensions.

The last comment relates to a possible plunge of individual mineralized "pods" within the zones, which has been suggested by other workers. Although there is a southerly plunge of certain lineaments (# 1, # 2 zones), the available data is yet insufficient to prove such hypothesis.

5.0 DIAMOND DRILLING PROGRAM RESULTS (PHASE II)

This section comments on the results of DDH-L-85-01, -02 and -02A, which were logged by the author. The results of the other holes will be discussed in a seperate report.

The main objective of the 2ooo' phase-II program was to verify the existence of reported # 1 and # 2 zones of mineralization at depth and to test the possible northern extension of both zones. In a memorandum from B. Starke to G.E. Coburn, dated 1o Nov. 85 (appendix D), the proposed drill-sites have been documented in plans and X-sections.

Drillholes L-85-01, -02 & -02A were logged by the author and are briefly discussed below:

Drill-logs and X-sections (appendix) are available at the Stroud offices. All holes were drilled on section 1+30 N, which is in the centre of known surface-mineralization. It was the objective to test the mineralization at 65 & 13o' depth to verify the Penrose results.

DDH L-85-01 (-50°) intersected a 30 foot wide zone of 0.1 oz/t Au, which corresponds well with the estimated average grade at surface (refer to section 4.5.1). Within this section are three higher grade veins of 0.237, 0.216 & 0.125 oz/t Au over 3' each.

DDH-L85-02 hit the top of the No. 1 level drift at 82.5' and could not be continued. A 0.14 oz/t Au assay over 7.5 feet was cut before reaching the drift, which implies that some ore on the No. 1 level was left in the hanging wall.

DDH L-85-02A (-90°) was then drilled to intersect the ore-zone further at depth. Virtually no mineralization was cut due to the presence of a quartz-feldspar-porphyry, who replaced the metabasalt hostrock at that point.

A very strong fault-zone, which corresponds to the mud-seam on the Penrose Mines X-section (at the 3oo and 4oo levels), was found in all 3 holes. This fault appears to display a strong control of the mineralization. It is also the major zone of shearing. All ore-grade minera-

lization is located in the footwall of the fault (!).

Another observation, which is brought forward, is the existance of strong mineralization (Penrose DDH No. 4: 0.214 oz/t Au over 25') at depth between the No. 2 and 3 levels, where only very lean ore-shoots are found associated with quartz-feldspar-porphyry just below the No. 1 level. This implies that the distribution of quartz-feldspar-porphyry and the mineralization are irregular. In the case of section 1+30 N (holes L-85-01 to -02A) it is then possible to predict ore further at depth, provided the quartz-feldspar-porphyry has given way to the metabasalt-hostrock.

To clarify the situation, deeper drilling is required.

Another fact, which is quite clear from the above drilling results and what was already suspected, is that UG drifting did only intersect some of the available ore and left much ore particularly in the footwall. Much of UG crosscutting was done in the hanging-wall, but very little in the footwall, which was somewhat neglected.

From the foregoing it might be concluded that the existing data-base is still quite poor and that the existing ore reserve calculations, which are based on these figures, are of little value. The concept of relatively restricted ore-shoots, which rake (plunge) to the south, has been a base for the reserve calculations (the most recent one by Stroud amounts to 39 000 t grading 0.219 oz/t Au). It is the author's opinion that the proposed distribution of the ore is a possibility, but is by far from proven. What is important in determining the true distribution and extent of the ore, is to establish a better understanding of the various ore-controls, such as: the already mentioned fault (mud-seam), the quartz-porphyry dykes and their shape and alteration criteria.

Further drilling, deep-drilling from the surface or subsurface drilling and X-cutting after dewatering the upper levels, is required to effectively evaluate the # 1 zone.

6.0 CONCLUSIONS

The results from Stroud's 1985 exploration program are very encouraging in increasing the existing ore-reserves on the property. The most important targets are those, which were already known, and which are in order of priority the # 1, # 2, # 1 extension(Niemetz) and the # 3 (Niemetz) zones and their possible extensions. The # 5 zone is worth further testing, but all other showings on the property are at this stage only low-priority targets.

The # 1 zone has considerable potential for additional reserves with depth, to the north and south (# 1 extension). The width of the zone, consisting of a number of parallel veins, has been inadequately tested in the past both at surface and underground, with particular reference to additional footwall-ore.

The # 2 zone has an unknown and virtually untested exploration potential for further ore in its northern extension (towards and across Arsenic Lake), with depth and to a lesser degree to the south.

The # 1 extension zone (Niemetz) has also been inadequately tested. Although the width and grade of individual ore-veins appear inferior to the # 1 mineralization, good potential for additional reserves exists in resampling the complete width of the mineralized zone adequately, and with depth.

The # 3 zone has the least promising surface expression of all the main four target areas. However, corresponding mineralization at 500' depth and a possible correlation with surface-mineralization to the south-east of the # 5 zone (refer to map No. 1), indicate a possible exploration potential for additional mineralization at depth and along strike.

At this stage figures re possible additional ore-reserves are not proposed. The main potential for an economically feasible ore-deposit

at Leckie is probably to develop a number of smaller (10 000 to 100 000 oz each) higher-grade (0.15 to 0.25 oz/t Au) ore-zones, which could derive from any of the four main targets, and possibly additional zones (# 5). Underground mining of these ores could be attempted from one central shaft. In addition, potential for low-grade (0.06 - 0.12 oz/t Au) near-surface ore exists for open-pitting at the # 1/ # 1 extension zones.

7.0 RECOMMENDATIONS

In accordance with the conclusions of this report, further exploration on the Leckie property is highly recommended.

Exploration should focus on the discovery of additional gold mineralization associated with the four major target areas, the # 1, # 2, # 1 extension (Niemetz) and the # 3 (Niemetz) zones. Drill-testing of the # 5 zone should also be undertaken.

Since the target areas are adequately outlined, the main exploration tool should be diamond drilling to be attempted in phases.
A first-phase drilling program (10 000 feet) would attempt the systematic sampling of all zones to a depth of approximately 250 feet. Care should be taken in assaying all core, at least when intersecting the mineralized zone including its margins. A systematic approach will also provide valuable data of the distribution of the mineralization and better evidence for or against the raking effect at the # 1 zone. A particular objective of the first-phase drilling program would be the evaluation of possible zone-extensions (# 2 to the north across Arsenic lake, also to the south and the # 1 zone to the north are priority objectives). Some deeper holes should evaluate the depth-potential of the # 3 and # 2 zones. Drill-testing of the # 5 zone is also recommended, particularly in view of a possible connection with the # 1 zone.

Pending results of phase-I, a follow-up program will be designed to do more detailed work to better define and further expand the ore-

reserves, concluding with a pre-feasibility study.The best approach may then be drilling and X-cutting from the underground workings of the Leckie # 1 shaft, after dewatering. Subsurface drilling could be facilitated also for the # 2 northern extension by X-cutting and drifting from the Leckie # 1 shaft UG workings. Similar X-cutting to the east (footwall) could also explore for the # 3 northern extension at depth.

Some shallow drilling from surface along the # 1/ # 1 extension zones is recommended to evaluate the potential for low-grade open-pittable ore.

Regional exploration for additional targets on the property is also recommended and would include meticulous systematic prospecting by prospectors, additional detailed geology , geochemical sampling and trenching, where warranted.

Mineralogical, additional metallurgical studies and a structural analysis of the vein-pattern (plunge!) are also recommended.

per
B. Stanke

8.0 PRINCIPAL REFERENCES

ALEXANDER D.R., 1977, Geological and Electromagnetic (VLF) surveys on part of Strathy-Cassels Group, Hollinger Mines Limited, Stroud library. 16 pp.

BENNETT G., 1978, Geology of thr Northeast Temagami Area, OGS report 163, Min.Nat.Res., Ont.,128 pp.,12 tables, 9 figs., 2 maps.

DUMONT G.H., 1949, Report on Penrose Mines Ltd., Stroud library, 6 pp

FOCKLER E.K., 194o, Manitoba and Eastern Mines Ltd. report, Stroud library, 8 pp.

FYON A., 1983, field notes # 1 and Niemetz geol.mapping. Stroud libr.

JENSEN L.S., 1985, Stratigraphy and Petrogenesis of Archean Metavolcanic sequences, Southwestern Abitibi Subprovince, Ontario. In Evol.of Arch.Supracr.Sequences, G.A.C. Spe.Pap. 28,1985, 87 pp., 18 figs., 2 tables.

KEAYS R.R., 1982, Archean Gold Deposits and their source rocks: The Upper Mantle connection. In Gold '82, The Geology, Geochemistry and Genesis of Gold Deposits, A.A.Balkema, Rotterdam 1984, 51 pp., 15 figs. 3 tables.

NIEMETZ H., 1983, Drill-records and notes, Stroud library.

PENROSE MINES LTD., 1948, 1963, various records, Stroud library.

SAVAGE W.S., 1936, Part of Strathy Township, In ODM 44th annual repor Vol. XLIV, part VII, 1935, pp.48-56, 1 fig., 2 maps.

SZETU S.S., 1963, Report on the property of Penrose Gold Mines Ltd., township of Strathy, Stroud library, 7 pp.

VARIOUS notes and records, Stroud library.

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REPORT ON

MAGNETOMETRIC AND ELECTROMAGNETIC SURVEYS

TEMAGAMI AREA

LECKIE GOLD MINE PROPERTY

ON BEHALF OF

LACANA MINING LTD.

OM85-8-C-147

Val d'Or, Quebec.
September, 1985.

Maurice Giroux,
Geologist.

EXPLOREX

TABLE OF (

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LACANA MINING LTD - MAG AND E.M. SURVEYS - LECKIE GOLD MINE PROPERTY .1

INTRODUCTION

During September 1985, a grid consisting of 18.5 line miles was established over Leckie Gold Mine Property in Temagami area, Ontario.

Following the line cutting, magnetometric and electromagnetic surveys were performed in order to investigate zones susceptible of containing gold mineralization over the surveyed area.

LOCALISATION AND ACCESS

The surveyed area is located in Strathy Township approximately two (2) miles north of Timagami Townsite, Ontario. The property is easilly accessible by Highway 11 that cross the property in a north-south direction.

DESCRIPTION OF THE SURVEY METHODS

The magnetometric and gradient surveys were carried out using a E.D.A., model Omni IV, assisted of a base station magnetometer also of the E.D.A., model Omni IV series. Readings were taken every fifty (50) feet along lines, base line and tie lines.

Concentration of minerals having magnetic susceptibility will give rise to variations in the earth's magnetic field. The data obtained by systematic observations of the intensity of the earth's magnetic field has been contoured and the results show magnetic patterns or anomalies.

Minerals having strong magnetic susceptibility are generally magnetite or pyrrhotite and are usually, but not necessarily, associated as primary or accessory minerals in massive sulphide or even gold deposits; thus, coincident magnetic in electromagnetic anomalies could be important.

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A gradiometer value is define as the difference between two (2) magnetometric readings taken simultaneously at different levels. During the same survey, the spacing between the sensors is fixed and small comparatively to the distance to the magnetic source.

Gradient anomalies tend to resolve composite or complex anomalies into their individual constituents and on the same basis automatically remove the regional magnetic gradient to better define the shallower anomalies assumed to be of interest. Also, the magnetic time variations including the effects of magnetic storms are effectively removed.

Electromagnetic (V.L.F.) survey was carried out using a Geonics, model EM-16, instrument with the NSS, Annapolis Maryland transmitting station assistance. All readings were taken at every fifty (50) feet along lines.

Electromagnetic V.L.F. method is normally used in area of weak or none conductive overburden in order to outline the geological structures such as fault and shear zones. Sulphides and graphitic zones which have conductive properties can also be capted by this method.

The large geologic noise component, which results from the relatively high transmitted frequency, can be very significant while treating V.L.F. profile. Consequently, there is a dynamic range problem when presenting the results as profiles plotted on a field map.

A data manipulation known as the Fraser filter transforms noisy non contourable data into less noisy contourable data, thereby eliminating the dynamic range problem and reducing the noise problem.

DISCUSSION OF RESULTS

Magnetometer survey:

Two (2) maps drawn at a scale of 1" = 200' show contours of total mag-

.../3

netic field and profiles of magnetic gradient.

The total field contoured results show a rough trend of N330° of the geological formations with a few east-west exceptions which probably represent mafic dyke material.

We also observe few low magnetic zones which are representative by their irregular shapes which are probably of intrusive nature.

The most significant magnetic zone observed during the present survey is located in the north of the surveyed area and shows a rough east-west trend and is open in both directions. The zone is wide just north of Arsenic Lake and becomes narrow (100 feet) when moving to the east. This dyke-like structure may play an important role in the gold mineralization occurences of the area.

Electromagnetic (V.L.F.) survey:

Two (2) maps drawn at a scale of 1" = 200' show the profiles of V.L.F. data obtained using the NSS transmitting station and facing west while taking readings and also the contours of Fraser filter.

The V.L.F. profiles, assisted of the Fraser contours, established six (6) different zones which will be discussed in turn.

Zone A

This zone located north of Arsenic Lake includes many conductors which seem to be associate to the same structure.

This zone is one of great importance having a strong magnetic association and a most probable continuity under Arsenic Lake to join zone E, north-east of the lake.

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The depth of these conductors varies from the surface to approximately 100 feet.

Zone B

This zone seems to underline a large fold which does not show a substantial magnetic coincident, except for the eastern extremity which overlaps a strong magnetic anomaly.

This zone represents a low priority for further work.

Zone C

This zone is located in the south-east part of the surveyed area and is at a contact with a low magnetic zone which may represent a geological contact.

This zone does not represent a priority zone for further work.

Zone D

This zone is located at the south extremity of the surveyed area and is not associate with significant magnetic values.

This zone does not represent a priority zone for further work.

Zone E

This zone is possibly the extension of zone A having the same trend and being in the same axis. However, we notice only a weak magnetic association.

This zone is of a higher priority for further work.

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Zone F

This zone is located at the south-west extremity of the grid and shows weak magnetic association.

However, the weak magnetic association make this zone a priority for further investigations.

CONCLUSION

The present survey has adequately covered the area and has outlined six (6) conductive zones. The magnetic results obtained have brought usefull informations concerning the nature of the conductors.

Three (3) zones of priority, zones A, E and F, have been suggested for further investigations.

Respectfully submitted,

Maurice Giroux,
Geologist.

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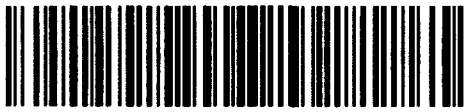

SUMMARY REPORT
1985 STROUD PHASE-II DIAMOND DRILLING PROGRAM
LECKIE PROJECT, ONTARIO

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JANUARY 1986

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1. INTRODUCTION

Subsequent to a surface exploration program during the period September 11 to October 12, 1985 (Ref.: Summary report 1985 Stroud exploration program, Leckie Project, Dec. 1985), a diamond drilling program was carried out from November 30, 1985 to January 8, 1986.

The objective of this report is to provide a synopsis of the drilling results with particular emphasis on the prediction of trends of mineralization and on recommendations for further work.

Drill-holes L-85-01, -02, -02A were logged by the author of this report and discussed in a summary report (Starke, 1985). All other drill-holes were logged by D. Villeneuve, who also provided a drill results summary, dated January, 1986. The reader is refered to above mentioned drill-logs and reports, which are available at the Stroud library, for details.

The author spent 1 day of travelling time, 1 ½ days of checking the core and 1 ½ days for preparing this report.

2.0 DIAMOND DRILLING PROGRAM (PHASE II) RESULTS

2.1 # 2 ZONE

A total of 740 feet (or 226 m) was drilled on the # 2 zone by four diamond drill holes: L 85-08, -09, -10, and -11.

The objective of the program was twofold: To determine the nature, width, grade and dip of the mineralized zone underneath the open pit and the underground workings, where the zone was known to exist. The second objective was to prove the northern/ north-easterly extension of the zone, which was predicted from surface geology and from a VLF anomaly (fraser enhanced contour). Both objectives were met: DDH L 85-08/ -09 determined the # 2 zone to dip approximately 68° to the west and holes L 85-10 and -11 discovered yet unknown mineralization to the northeast/ north of the known zone.

X-section 0+10 N (new), which shows the intersections of DDH's L 85-08/ -09 (Refer to drawings Nos. ST-86-01 and ST-86-04), displays the nature, width and dip of the # 2 zone at the open pit area quite well: The information at the 00 L (shaft collar and bottom of open cut) is poor: Due to unsafe access and overburden (pit), sampling was limited to the eastern side of the pit, where a 4' intersection assayed 0.051 - 0.50 oz/t gold-silver. The mineralization is associated with arsenopyrite; pyrite and chalcopyrite are present. A 2 foot mineralized vein is reported to occur underneath a crib at the south end of the pit, but was not sampled due to unsafe access. The position of the UG drift at the 56 L is not known, but according to reports it is very likely that the drift, which was reported to have a sampling mean of 0.26 oz/t Au over 2.5', is located beneath the open pit above the L 85-08/-09 drillhole intersections. DDH L 85-08 intersected a narrow 1.1 foot wide zone assaying 0.205-1.96 oz/t gold-silver with associated arsenopyrite and chalcopyrite. DDH L 85-09 intersected a similar zone, but containing less arsenopyrite with pyrite and also chalcopyrite, which assayed

however only 0.025 oz/t gold, but 21 oz/t silver (?). One additional sample was taken and sent for assay: Sample # 7517 from 149.5-152.0' for a sample length of 2.5'. The result is not yet available, but the sample includes ½' of aspy and cpy containing pyrite-rich core above sample # 1891, which assayed 0.025 oz/t Au over 1 foot from 152-153 feet (same as above mentioned assay). With other words, the pending assay result of sample # 7517 will determine the complete grade of the mineralized intersection at that point.

In summary, the # 2 zone mineralization of an approximate 10 foot width, contains Au-mineralized zones of 0.05-0.25 oz/t Au grades and widths of 1-4 feet. The whole zone dips approximately 68° to the west. The Au-mineralization appears associated with arsenopyrite, chalcopyrite and pyrite. Quartz-feldspar porphyry dykes, which might be very narrow and are difficult to detect, are also closely associated with the "ore".

Please note, that sample 1890 was taken from 148.2-149.5' instead from the interval 138.2-139.5', as reported in the original log. A correction of the numbers is warrented, but additional sampling is not required.

DDH L 85-10 and L 85-11 intersected the # 2 zone mineralization 110 feet below surface, 70 and 130 feet to the north-east of the # 2 shaft. The encountered mineralization is considerably better in these holes as compared with the open pit area, both in grade and in width (refer to drawings Nos. ST-86-02, -03, -04). The width, grade and type of mineralization is quite similar in both holes, which are 80 feet apart, and accordingly a certain continuity of mineralization can be assumed, at least over this part of the zone. Although arsenopyrite is again associated with the gold-mineralized sections, the highest grade occurs in sample # 7510 (L 85-11), where a 1 foot section assayed 0.5 oz/t gold and contains only trace amounts of arsenopyrite, but ± 25 % pyrite and 2 % chalcopyrite (estimated amounts). It therefore appears that arsenopyrite is commonly associated with gold, but is not indispensable for gold

concentration.

Assuming a dip of the # 2 mineralized zone at 68° to the west, as interpreted from the results of X-section 0+10 N (refer to drawing No. ST-86-01), the projection to surface of mineralized intersections of holes L 85-10/11 plot on plan as shown on drawing No. ST-86-04. Corrections for a position of the mineralized zone, which is not perpendicular (in plan) to the direction of the DDH, were not undertaken. It appears that the # 2 zone assumes a NE strike from the northern part of the open pit to the intersection of L 85-1o, after which it swings again to its "normal" northerly strike. A somewhat similar northerly extension of the zone was predicted (refer to drawing No. 6 of summary report 1985 Stroud exploration program, Dec. 1985 by Starke). The actual position of the zone will only be clear after more DDH-intersections are available to construct more reliable sections (at least 2 holes per section !). As has been shown on drawing No. ST-86-04 (compare also drawing No. 6 of Dec, 1985 Stroud summary exploration report), a distinct VLF conductor straddles more or less the # 2 mineralized zone and strongly suggests a controlling relationship.

From surface geology it was assumed that the gold mineralization is controlled by a virtually N-S striking shearzone, which has been offset by a NE-SW crossfault. The mineralization is younger than the later faulting and has been emplaced in both structures. Further south the shearzone is assumed to have been offset by a NW-SE crossfault (refer to drawing # 6, Dec. 85 Stroud report).

The significance of the L 85-1o/11 intersections is of course the possible exploration potential for additional and better (grade-width) mineralization to the north (north-east) towards and across Arsenic Lake. In addition, the apparent relationship with the VLF conductor also implies the possibility of a second mineralized zone to the east of the known # 2 zone (refer to drawing # 6, Stroud Dec. 85 summary report).

2.2 # 1 ZONE

A total of 2 133.5 feet (or 650 m) was drilled on the # 1 zone by 8 diamond drill holes.

The objective of the drilling program was quite similar as at the # 2 zone: evaluation of the zone at depth in an area, where the zone was expected to exist, and the exploration for the northern extension. In addition one VLF conductor was to be tested for mineralization. Drilling in the area of known mineralization (DDH L 85-01, -02, -02A) proved the existance of ore sampled by Penrose Mines underground, the northern extension of the zone was found by holes L 85-05 and -07, but the grades were low. A VLF-conductor of unknown implication was tested to the north-west of the # 1 zone, which resulted quite surprisingly in a 2.4 foot wide section grading 0.101-0.27 oz/t gold-silver.

X-section 1+30 N (refer to summary report Dec. 1985, Stroud) displays the results of DDH's L 85-01, -02, -02A, which intersected the # 1 zone in its central and well mineralized area underneath the crib. The results have already been discussed in above mentioned report.

Northern extension of the # 1 zone. The northern extension was tested by holes L 85-03, -04, -05 and -07. The reader is referred to plan and sections which are available at the Stroud library.
L 85-03 and -04 cut the favourable section approximately 130 feet north of X-section 1+30 N (above) without encountering mineralization. The reason why is not clearly understood, but an offset of the zone by a fault may be the reason. The time did not permit to study the problem in detail, because it would imply a very careful comparison of all core to try the correlation of marker zones attempting the detection of an offsetting fault. Both holes are quite different from the other holes on either side: they lack a similar alteration, particularly with regard to pyrite, which occurs as an envelope of the mineralization both UG and at surface (refer to mapping by D. Villeneuve in Stroud's 1985 exploration report), whenever mine-

ralization is encountered.
DDH's L 85-05 and -07, located 90 and 160 feet further north, intersected each a distinct mineralized pyrite (with chalcopyrite) zone of 9 feet, assaying between 0.029 and 0.054 oz/t gold. The grades are clearly lower than in the central part of the # 1 zone, but the presence of the # 1 extension zone to the north has been established.

An additional sample, sample # 7518, was taken at the interval of 100.5-102.5 feet of DDH L 85-04. Existing sample # 1842 (same hole) was sampled from 100.0-100.5 only instead for the interval 100.0-102.5 feet. The assay result is pending. A correction should be made on the corresponding log.

A VLF anomaly was tested with DDH L 85-06 to the north-west of the # 1 zone. A 2.4 foot intersection assayed 0.101-0.27 oz/t gold-silver, which is a somewhat unexpected result. The zone appears unrelated to a more extensive alteration halo and may be isolated. The presence of gold and the association with an VLF conductor are however intriguing enough to be followed up.

3.0 CONCLUSIONS

The northern extension of the # 2 zone has been established by two well mineralized intersections below the 1oo level. Taking into account surface indications, the # 2 zone extends now from line 10 S to line 7 S (old grid) for approximately 4oo feet. The width of the zone is between 10 and 16 feet, dip is estimated to be 68° to the west. Individual "ore-shoots" within the zone are from 1 foot to 7 feet in width with grades varying from 0.05 to 0.5 Oz/t Au with silver credits. Grades and widths of ore-grade mineralization increases from south to north. The best intersections derive from DDH's L 85-10 and -11: 0.145-0.73 Oz/t gold-silver over 7' and 0.082-0.46 oz/t gold-silver over 15.2' (L 85-10); 0.174-0.34 oz/t gold-silver over 6', 0.5-1.77 oz/t gold-silver over 1' and 0.09-0.24 oz/t gold-silver over 17.3' (L 85-11). DDH L 85-11 may not have penetrated the mineralized zone completely. An open cavity prohibited the completion of the hole.

The # 2 zone appears controlled by a distinct VLF conductor.

The northern extension beyond line 7 S towards and across Arsenic Lake is completely open and untested. The VLF conductor continues in that direction. A VLF survey over the lake is planned to confirm the assumed northern extension of the VLF anomaly. It is obvious at this stage of exploration that exploration for the northern extension of the # 2 zone is a priority. The probable control of VLF anomalies with mineralization also implies that other VLF anomalies should be tested, particularly where mineralized trends and intersections of different mineralized trends are indicated.

A N-S trending VLF anomaly parallel and east to the # 2 zone mineralization may be related to a yet unknown additional mineralized zone.

The southern # 2 zone extension has an unknown and probably less promising exploration potential for additional mineralization.

The northern extension of the # 1 zone was tested, but the encountered grades are inferior to the grades of the central zone. In the area of DDH-intersections L 85-03/ -04 virtually no mineralization was cut, and there are some indications that the mineralization has been cut-off by a fault. However, the situation is not clear.

As has been pointed out previously (Summary report 1985 Stroud exploration program, Dec. 1985), the possible irregularity of mineralization due to structural complexity requires deeper drilling and a number of holes per section to evaluate the # 1 zone (and other zones) adequately. The Penrose DDH No. 4, which intersected 25' of 0.214 oz/t Au at a depth of 250' below surface, is a good example: Only very lean ore-shoots were found above the intersection below the # 1 level. The virtual lack of mineralization at that point is probably caused by a structurally controlled quartz-feldspar-porphyry, which cuts in.

It is felt that the information to date is completely insufficient to evaluate the zone. The established northern extension provides a good base for further exploration, which his highly recommended.

4.0 RECOMMENDATIONS

The results of the drilling program confirm the recommendations made after the completion of the 1985 phase-I surface exploration program (summary report, Starke Dec. 1985).

The following recommendations, which have been discussed with George E. Coburn, president of Stroud Resources, are related to a planned 1986 winter drilling program in the amount of 3ooo feet. The selection was made not only by the priority rating of targets, but also by logistics: It is recommended to drill those priority targets, which can only be drilled from the lake during the winter program.

2 zone: Total footage: 1 6oo feet.

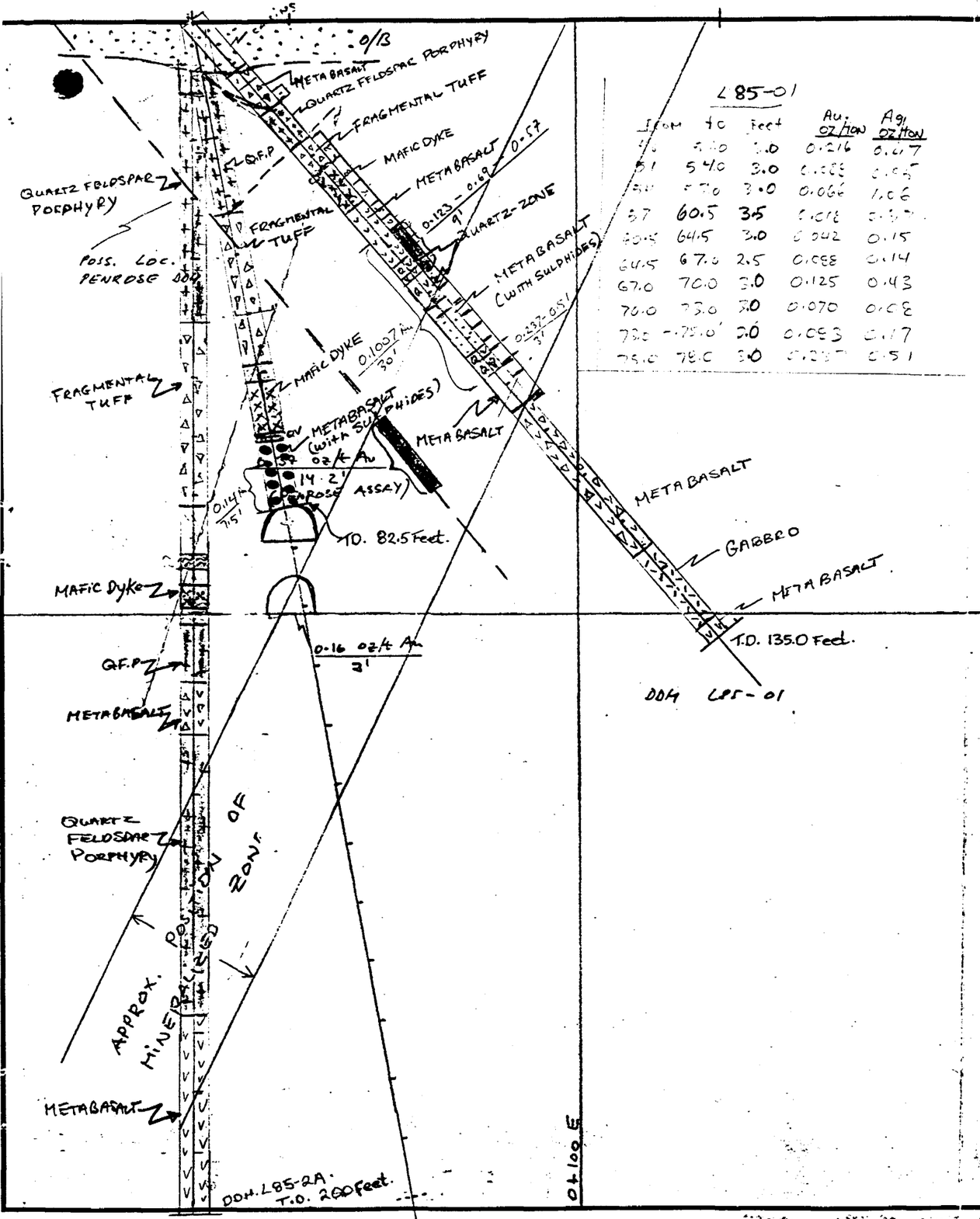
8 DDH's at approximately 2oo foot each. 1 DDH each to be drilled under L 85-1o and -11 to intersect the 15o level (total footage: 5oo'). 3 sections of 2 DDH's each north of line 7 (old grid) in 7o' intervals to intersect the # 2 northern extension at a depth of 60 and 150 foot respectively (total footage: 11oo feet or more).

1 zone: Total footage: 1 400 feet.

The objective is to intersect the # 1 zone at depth. Tentatively 2 sections are selected. Both have to be drilled from the lake. Deeper drilling at the northern extension can be attempted by additional drilling from the shore during the summer season.

3 DDH's at section 0+10 N to intersect the zone above the 100, 200 and 3oo L.
2 DDH's at section 1+50 S to intersect the zone between levels 1/2 and levels 3/4.

Note, that extreme caution should be exercised to avoid drilling into any UG workings, when drilling from the lake.



L85-01

From	to	Feet	Au oz/ton	Ag oz/ton
0	5.40	1.0	0.216	0.67
5.1	5.40	3.0	0.035	0.05
54.0	57.0	3.0	0.066	1.06
57	60.5	3.5	0.018	0.30
60.5	64.5	3.0	0.042	0.15
64.5	67.0	2.5	0.038	0.14
67.0	70.0	3.0	0.125	0.43
70.0	73.0	3.0	0.070	0.28
73.0	75.0	2.0	0.053	0.17
75.0	78.0	3.0	0.23	0.51

L85-2

7.5 feet of 0.14 oz Au/ton

L85-2A

No meaningful assay results.

OM85-147

63.4917

(3)

	L85-01	L85-02
Grid - North	1+30 N	1+30 N
Grid - East	0+37 E	0+37 E
Azimuth	N60 E	N60 E
Dip	-50°	-80°
Total Depth (PROPOSED)	135'	200'

STROUD RESOURCES LTD.

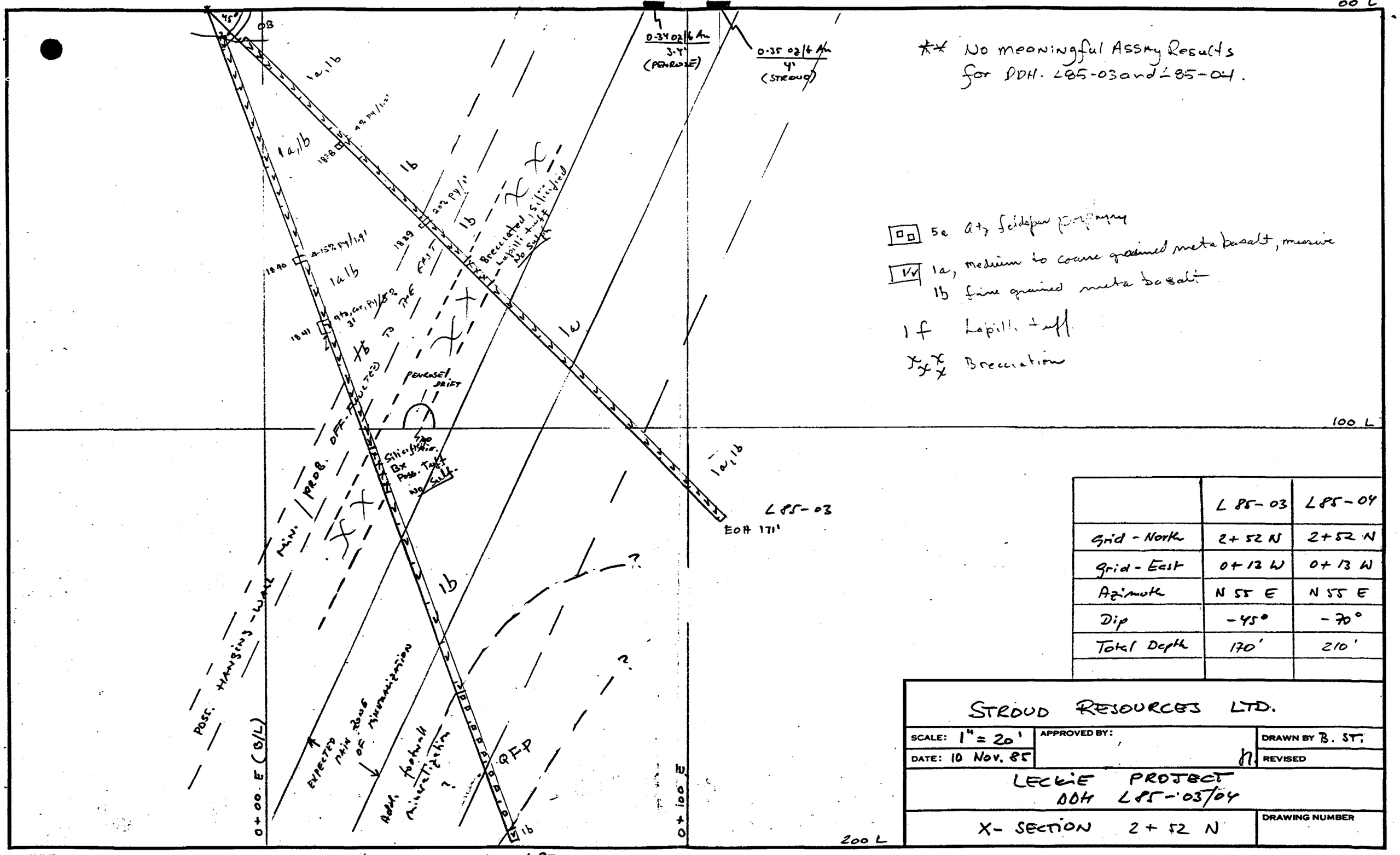
SCALE: 1"=20'	APPROVED BY:	DRAWN BY B. ST.
DATE: 10 Nov. 85		REVISED

LECKIE PROJECT

DDH L85 01/02

X-SECTION 1+30 N

DRAWING NUMBER



	L 85-03	L 85-04
Grid - North	2+52 N	2+52 N
Grid - East	0+13 W	0+13 W
Azimuth	N 55 E	N 55 E
Dip	-45°	-70°
Total Depth	170'	210'

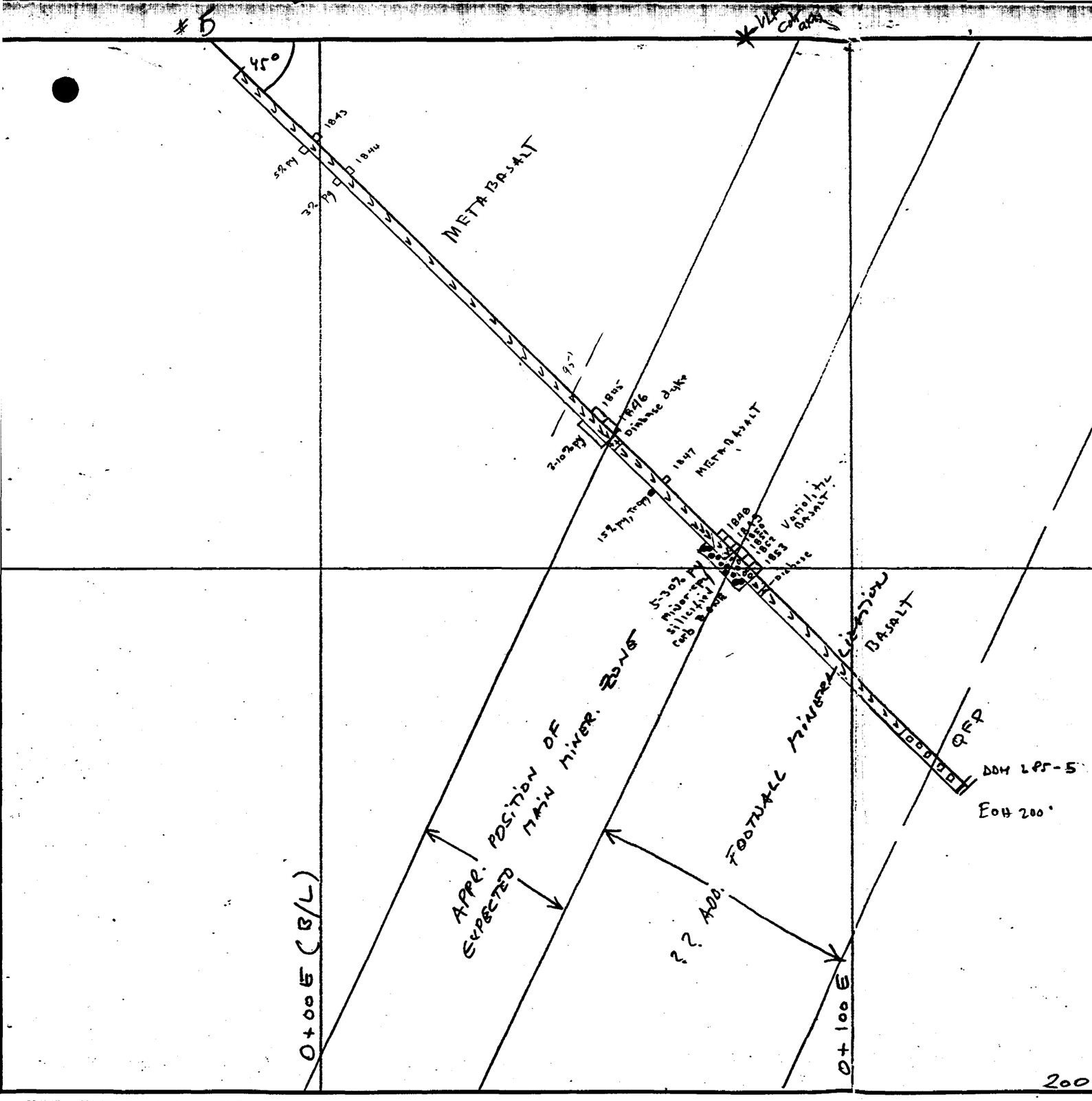
STROUD RESOURCES LTD.

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY B. ST.
DATE: 10 Nov. 85		REVISED

LECKIE PROJECT
DDH L85-03/04

X-SECTION 2+52 N

DRAWING NUMBER



Sample No.	Au. oz/ton	Ag. oz/ton	Feet
1847	0.104	<0.01	1.0
1846	0.011	0.9	1.6
1849	0.031	<0.01	2.0
1850	0.017	<0.01	1.0
1851	0.008	0.01	2.0
1852	0.005	0.09	2.0
1853	0.076	0.09	2.0

	L 85-05
Grid - North	3+50 N
Grid - West	0+20 W
Azimuth	N 60 E
Dip	-45°
T.D.	200'

STROUD RESOURCES LIMITED

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY R. ST.
DATE: 10 NOV 85		REVISED

LECKIE PROJECT
DDH L85-05 -

X- SECTION 3+050 N

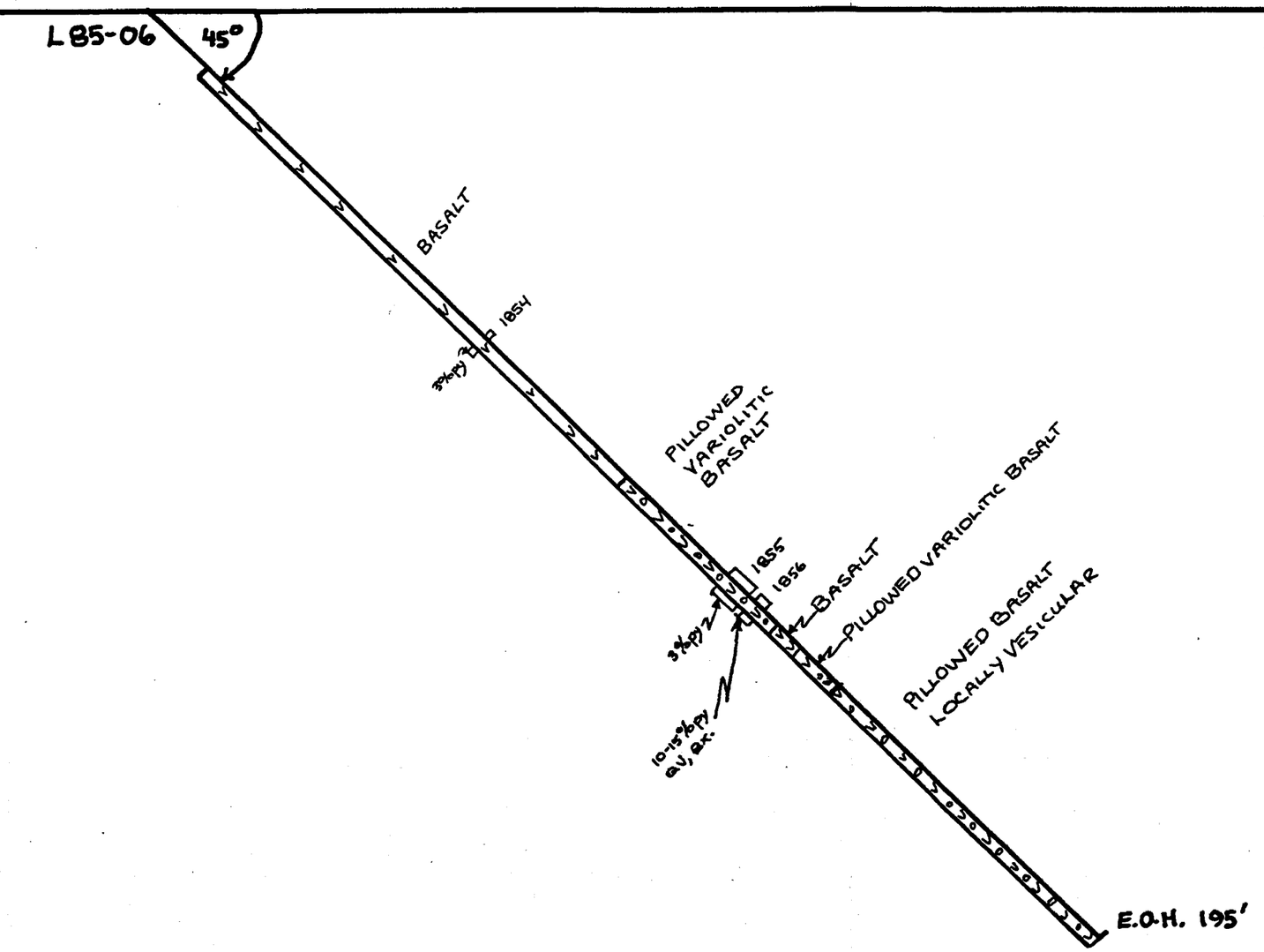
DRAWING NUMBER

2E

L 7N

L85-06

45°



Sample	Au. oz/ton	Ag. oz/ton	Feet
1856	0.101	0.27	2.4

	L 85-06
Grid-North	7+00N
Grid-East	2+00E
Azimuth	N 60E
Dip	-45°
T. D.	195'

STROUD RESOURCES LTD.

SCALE: 1" = 20'	APPROVED BY: REC	DRAWN BY D. V.
DATE: 10 NOV. 85		REVISED

LECKIE PROJECT
D.D.H. L 85 - 06

X-SECTION 7+00N

DRAWING NUMBER

×8 #

45°

00 L

100 L

PROJECTION OF POSSIBLE EXTENSION OF # 1 & 2 (PROPOSED) ZONE

APPROX. POSITION OF EXPECTED MAIN ZONE OF MINERALIZATION

? APPROX. ADDITIONAL FOOTWALL MINERALIZATION

EOH 200'

DDH L 85-07 PROPOSED TD = 240'

200 L

AZ 055°

	L 85-07
Grid - North	4+20 N
Grid - West	0+00
Azimuth	055°
Dip	-45°
T.D.	240'

STROUD RESOURCES LTD.

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY B. ST.
DATE: 10 NOV. 85		REVISED

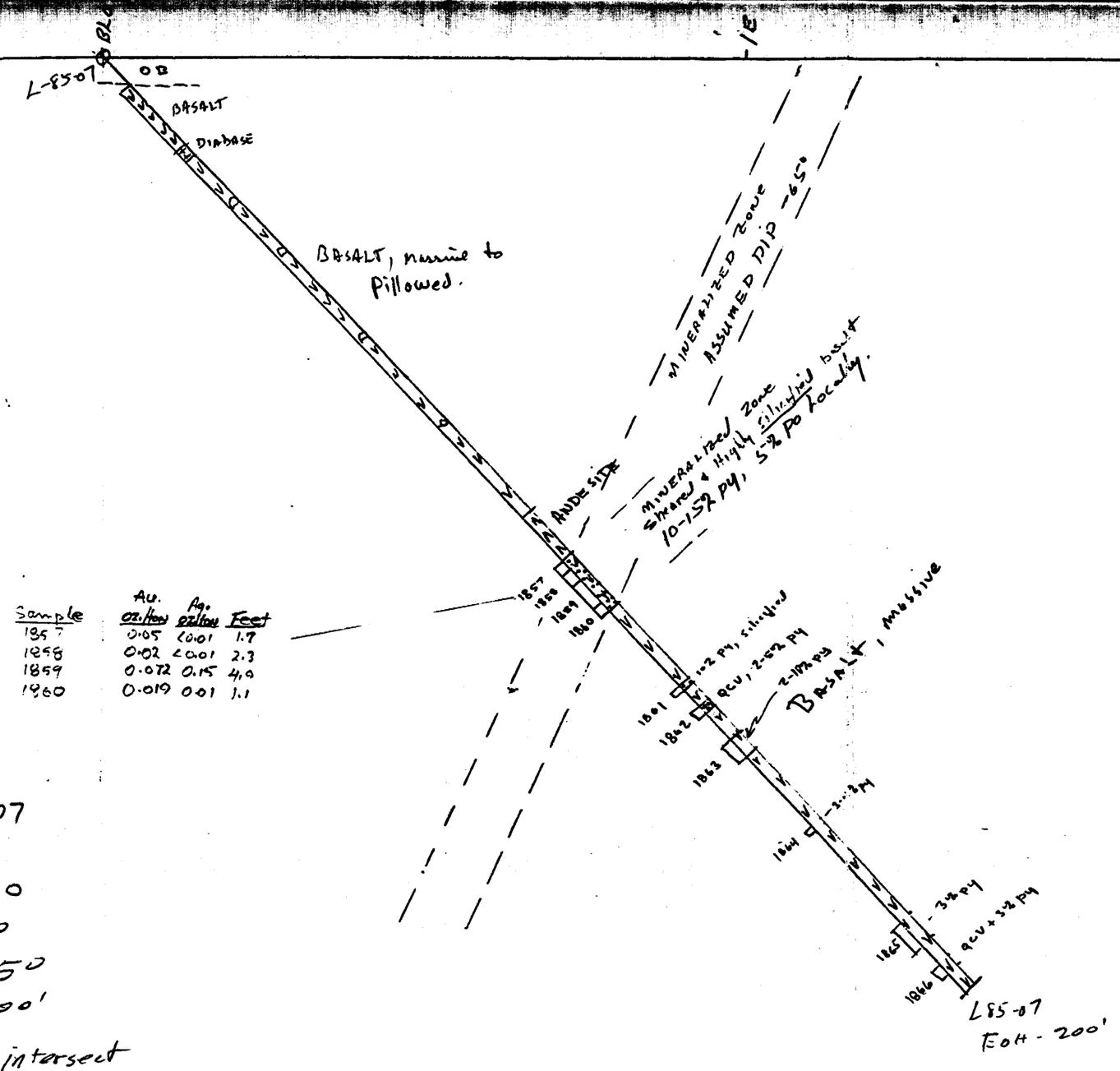
LECKIE PROJECT
DDH L 85-07

X-SECTION AT

DRAWING NUMBER

11 X 17 PRINTED ON NO. 1000H CLEARPRINT ●

L 4+20N



Sample	Au. oz/ton	Ag. oz/ton	Feet
1857	0.05	<0.01	1.7
1858	0.02	<0.01	2.3
1859	0.072	0.15	4.9
1860	0.019	0.01	1.1

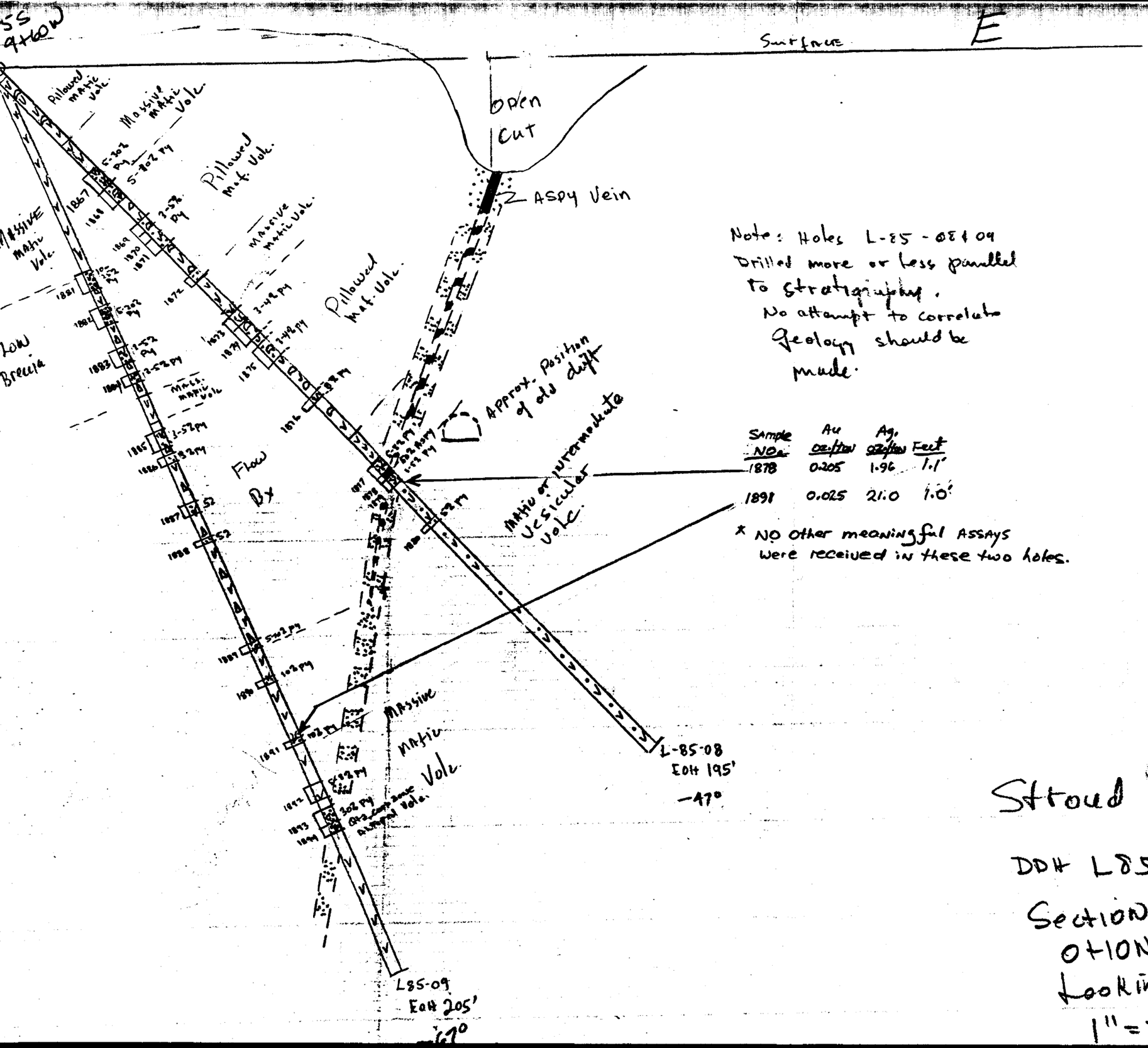
Hole L-85-07
L4+20N
@ BL 0+00
Az 055°
Dip -45°
EOH - 200'

Purpose: To intersect NW extension of #1 Zone & increase strike lenght of Zone intersected in hole L-85-05

Stroud Resources
Hole L-85-07
Section 4+20N
055°
Looking NW

1" = 20'

Approved: Jcc.



Note: Holes L-85-08 & 09 Drilled more or less parallel to stratigraphy. No attempt to correlate Geology should be made.

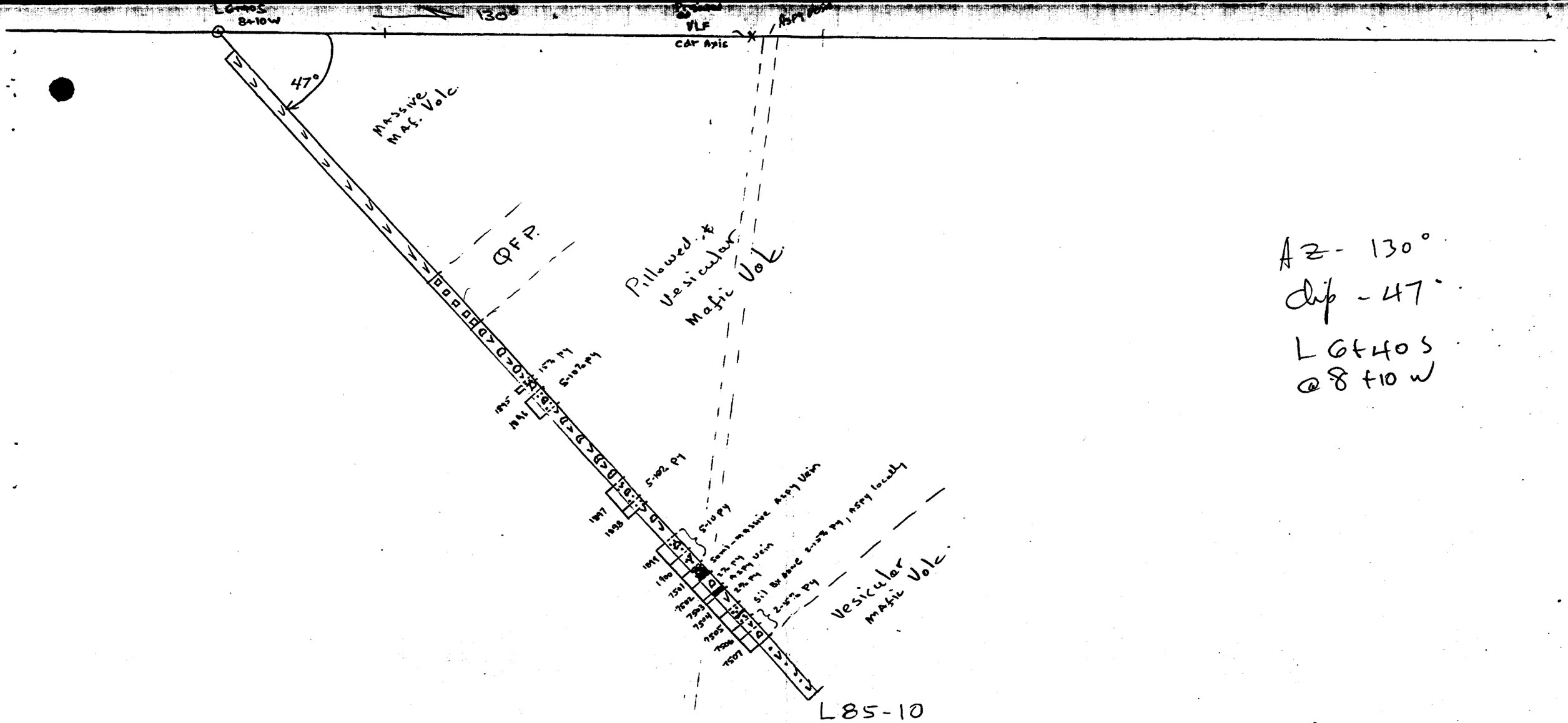
Sample No.	Au oz/ton	Ag, oz/ton	Feet
1878	0.205	1.96	1.1'
1891	0.025	21.0	1.0'

* NO other meaningful ASSAYS were received in these two holes.

Stroud Res.

DDH L85-08 & 09

Section
OTION (New)
Looking North.
1" = 20'



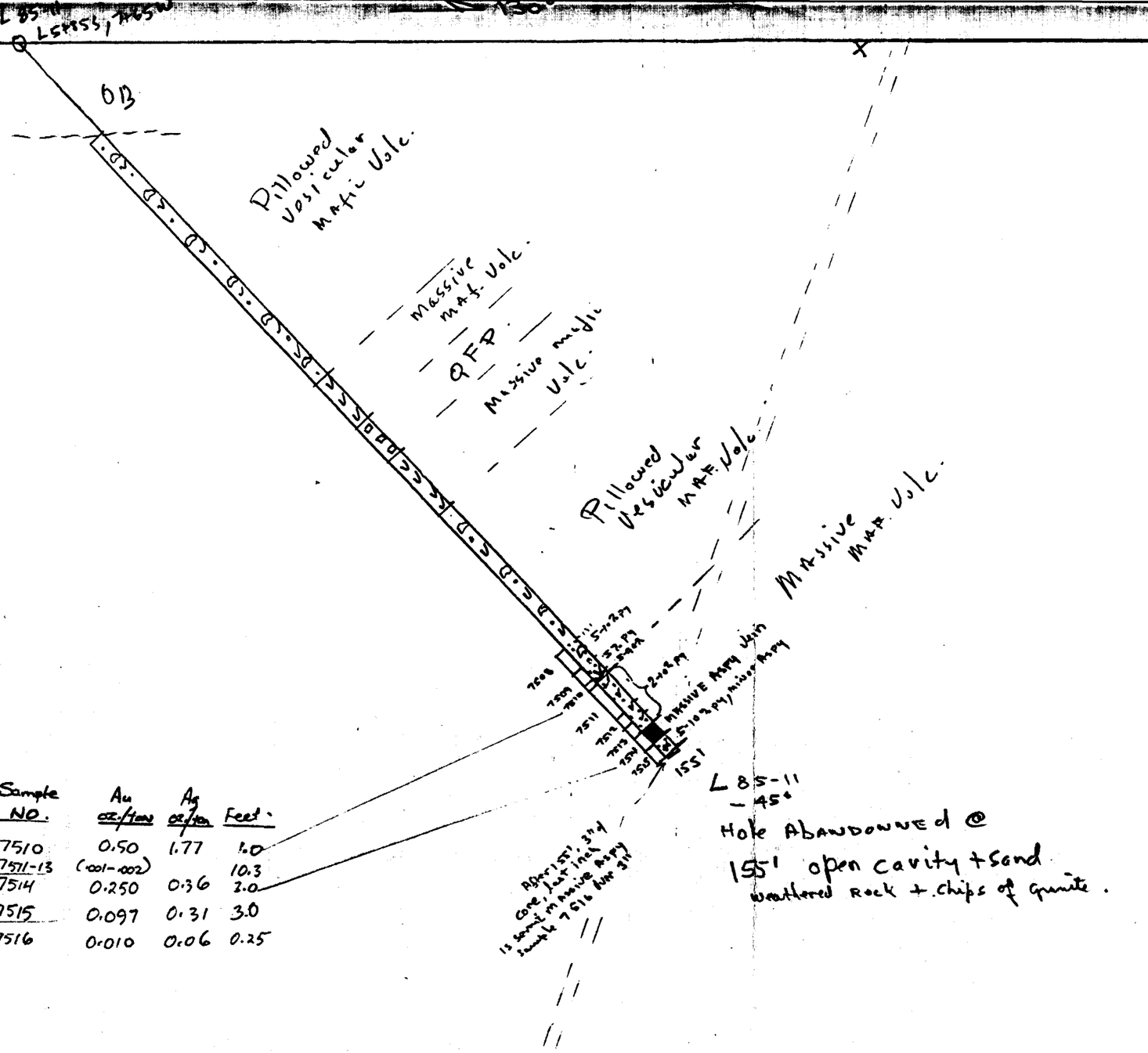
L85-10
EOH 185'
-47°

Sample NO.	Au oz./ton	Ag oz./ton	Feet
7501	0.289	0.78	3.1
7502	0.004	0.02	3.3
7503	0.103	2.60	1.0
7504	0.008	0.16	4.0
7505	0.054	0.34	3.8

Az - 130°
dip - 47°
L 6+40 S
@ 8+10 W

Leckie
Cross Section
Hole L85-10
#2 Zone.
Looking North
1" = 20'.

Approved. Gac



Sample NO.	Au oz./ton	Ag oz./ton	Feet.
7510	0.50	1.77	1.0
7511-13	(.001-.002)		10.3
7514	0.250	0.36	2.0
7515	0.097	0.31	3.0
7516	0.010	0.06	0.25

Leckie.

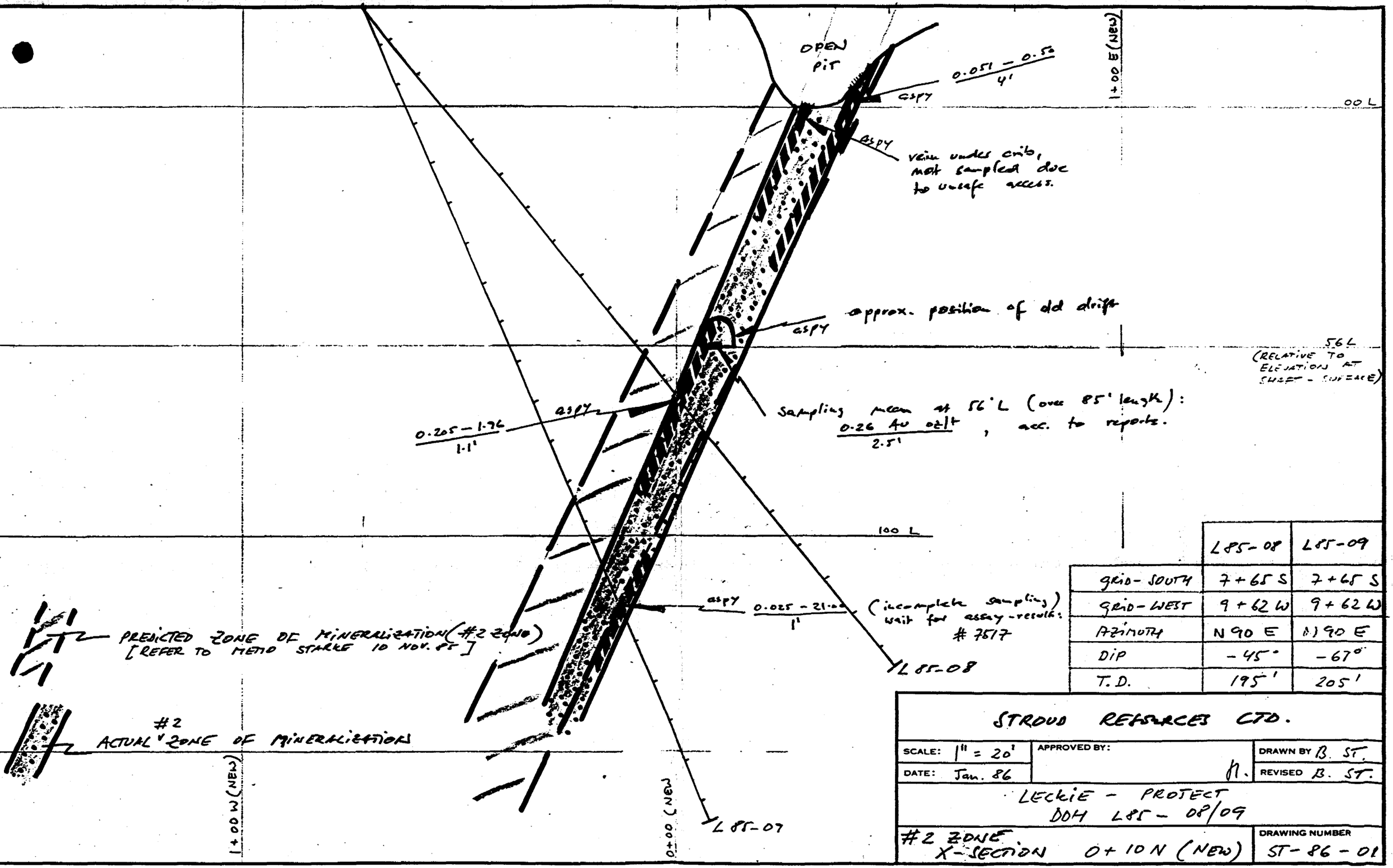
Cross Section

Hole 85-11

looking N.

1" = 20'

Approved by. GEC.



	L85-08	L85-09
GRID-SOUTH	7+65 S	7+65 S
GRID-WEST	9+62 W	9+62 W
AZIMUTH	N 90 E	N 90 E
DIP	-45°	-67°
T.D.	195'	205'

STROUD RESOURCES LTD.

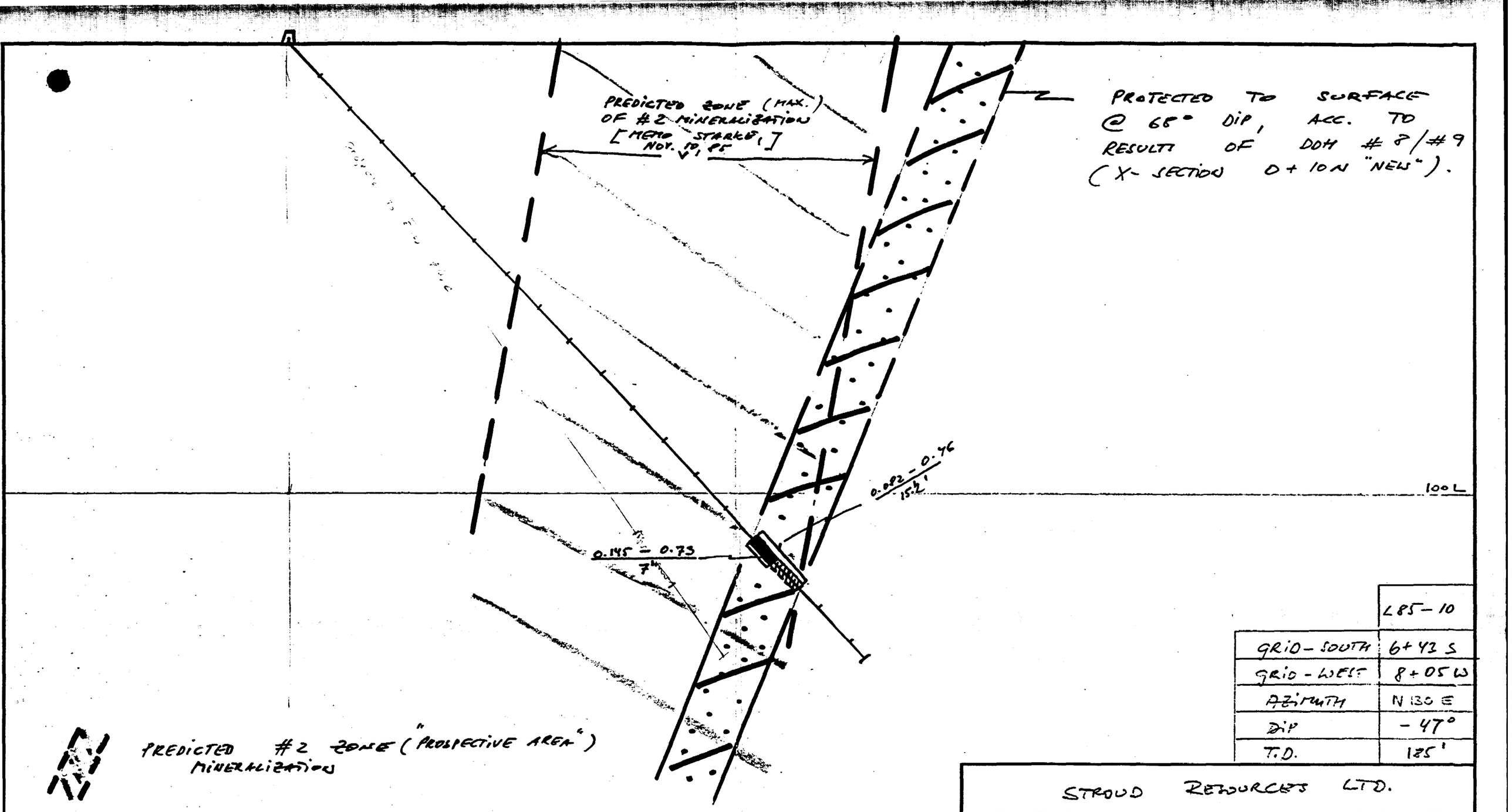
SCALE: 1" = 20'	APPROVED BY:	DRAWN BY B. ST.
DATE: Jan. 86		REVISED B. ST.

LECKIE – PROJECT
DDH L85-08/09

#2 ZONE
X-SECTION 0+10 N (NEW)

DRAWING NUMBER
ST-86-01

11 X 17 PRINTED ON NO. 1000H CLEARPRINT ●



PREDICTED #2 ZONE ("PROSPECTIVE AREA") MINERALIZATION

ACTUAL #2 ZONE MINERALIZATIONS

	L85-10
GRID-SOUTH	6+43 S
GRID-WEST	8+05 W
AZIMUTH	N 130 E
DIP	-47°
T.D.	125'

STROUD RESOURCES LTD.

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY B. ST.
DATE: 10 NOV. 85		REVISED JAN. 86

LECKIE PROJECT

#2 ZONE DDH L85-10

X-SECTION N 130 E

DRAWING NUMBER ST-86-02

N approx. position of old DOH' — not verified in field.

B5-11

B5-10

1b (1c)

NOT EXPOSED

1b (1c)

NOT EXPOSED

LORE AND

WASTE DUMP

ST-17

ST-26

A

B

#2 ZONE

NOT EXPOSED

NOT EXPOSED

1b(1c)

ST.- 17

ST-20/Tr. - 0.02

ST-29/Tr. - Tr.

L 85-08/09

-45°/-67°

1b(1c)

B/R NOT EXPOSED

ST-26

B/R NOT EXPOSED

OPEN PIT

B/R NOT EXPOSED

VLF - Cont. Axis

VLF - Cont. Axis

CORE AND WASTE DUMP

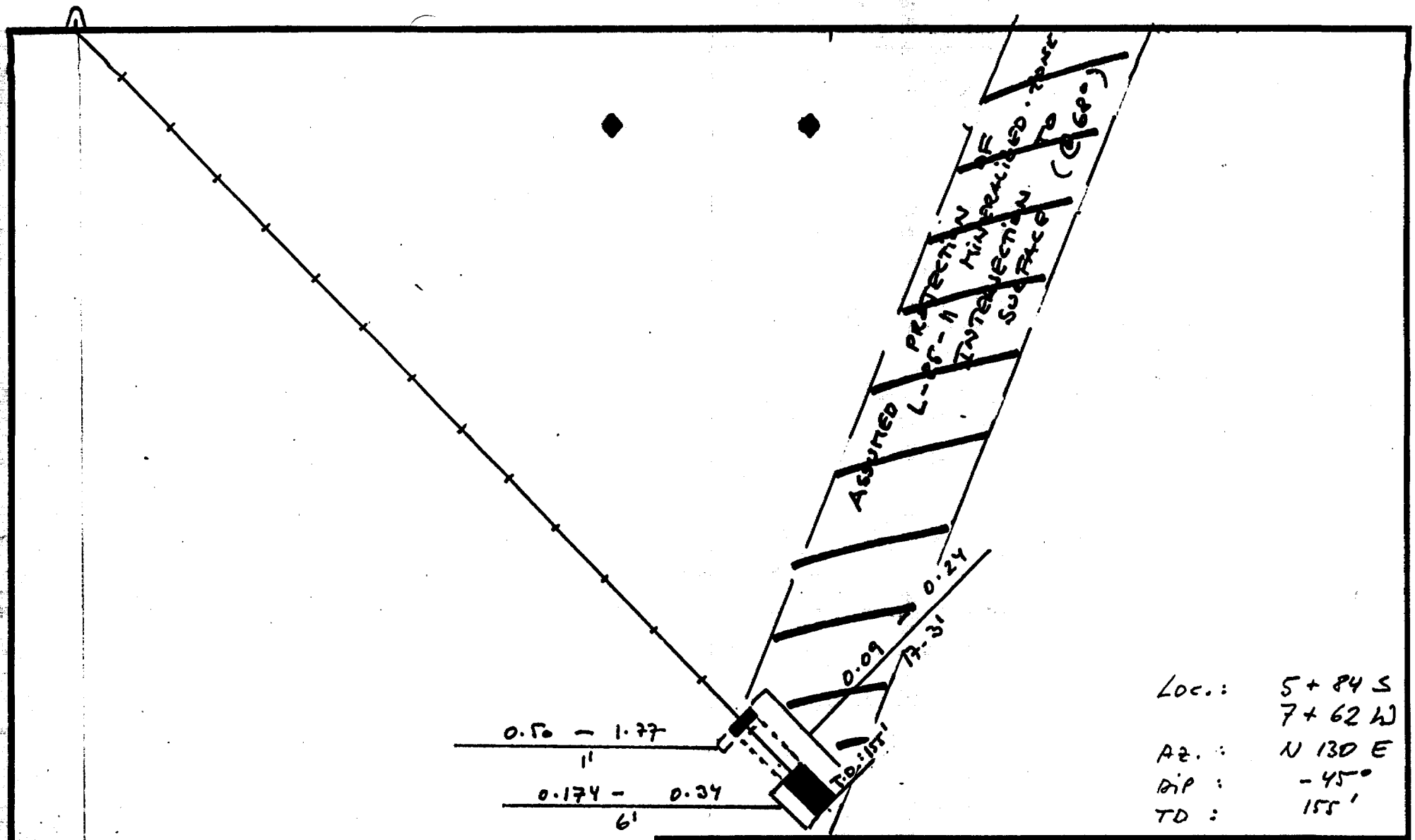
PROTECTION TO SURFACE PLANE ABOVE PIT

PROBABLE EXTENT #2 MINERALIZED ZONE

52 / Tr.

B/R

STROUD RESOURCES LTD.	
SCALE: 1" = 20'	APPROVED BY:
DATE: JAN. 85	
#2-ZONE	LECHIE PROJECT ONT.
PLAN AND VERTICAL PROJECTION OF MINERALIZED SECTIONS	DRAWN BY B. ST. / REVISED / DRAWING NUMBER ST-86-04

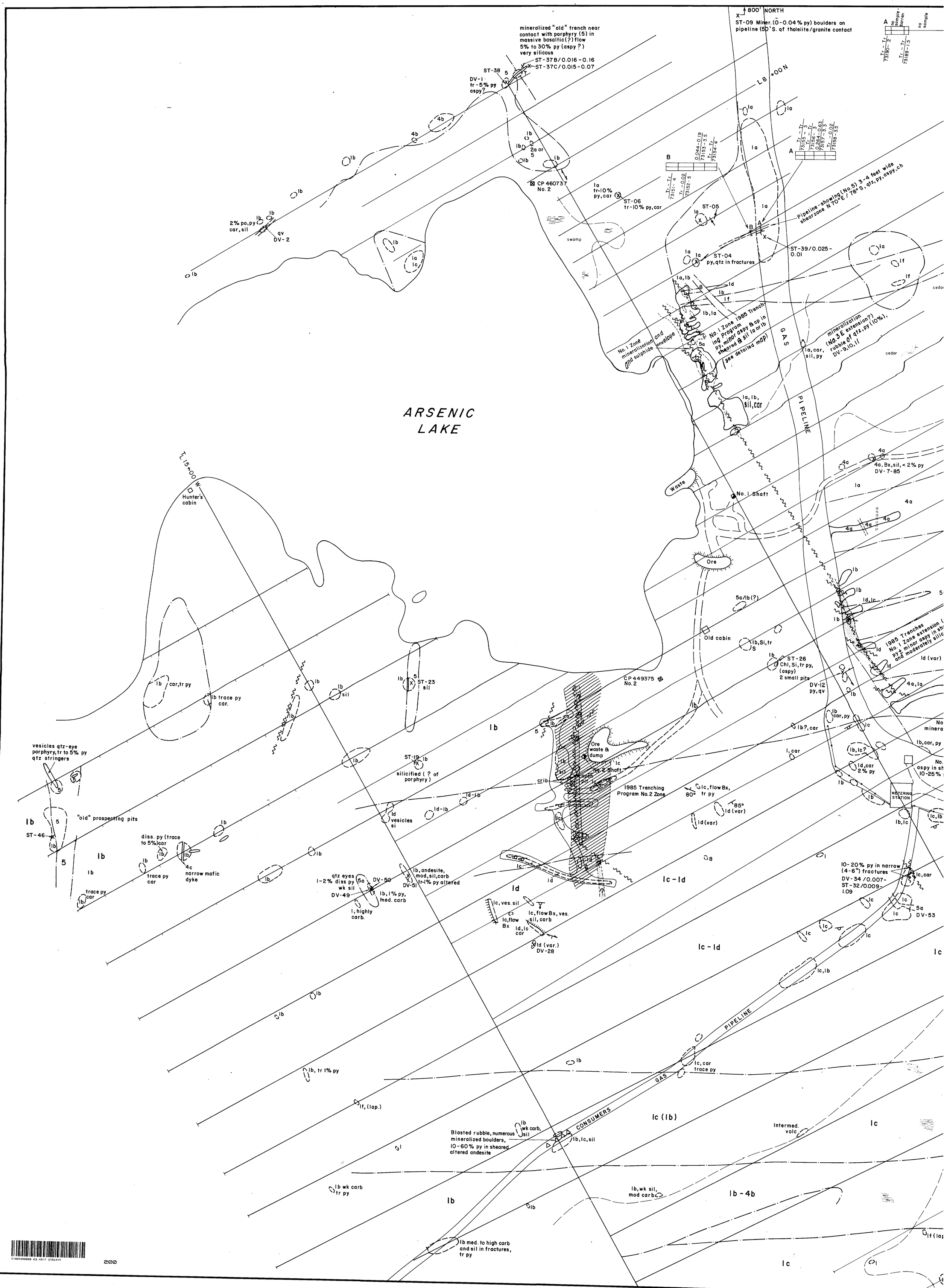


STROUD RESOURCES LTD.

SCALE: 1" = 20'	APPROVED BY:	DRAWN BY B. ST.
DATE: JAN. 86		REVISED

LECKIE PROTECT
DDH L-85-11

# 2 ZONE:	X-SECTION N 130 E	DRAWING NUMBER ST-86-03


800' NORTH
ST-09 Miner. (0-0.04% py) boulders on pipeline (50' S. of tholeiite/granite contact
mineralized "old" trench near contact with porphyry (5) in massive basaltic(?) flow
5% to 30% py (aspy ?)
very silicous
ST-37B/0.016-0.16
ST-37C/0.015-0.07
ST-38
DV-1
tr-5% py
aspy?
CP 460737
No. 2
ST-06
tr-10% py, car
ST-05
ST-04
py, qtz in fractures
ST-39/0.025-0.01
Pipeline-showing (No.5) 3-4 feet wide shearzone N 70°E / 78° S, qtz, py, aspy, ch
L8 +00N
2% po, py car, sil
DV-2
qv
swamp
No. 1 Zone mineralization and sulphide envelope
No. 1 Zone 1985 Trenching Program py, minor aspy & cp in sheared & sil 1a or 1b (see detailed map)
mineralization (No. 3E extension?) rubble of qtz, py (10%), DV-9, 10, 11
1a, car, sil, py
GAS
PIPELINE
1a, 1b, sil, car
Waste
No. 1 Shaft
4a, Bx, sil, < 2% py DV-7-85
Ore
5a/1b(?)
Old cabin
1b, Si, tr S
ST-26
Chl, Si, tr py, (aspy)
2 small pits
DV-12
py, qv
1985 Trenches No. 1 Zone extension py ± minor aspy in sh and moderately silic
ARSENIC LAKE
TL 15+00 W
Hunter's cabin
car, tr py
1b trace py car.
sil
ST-23
sil
CP 449375
No. 2
vesicles qtz-eye porphyry, tr to 5% py qtz stringers
ST-19
silicified (? of porphyry)
Ore waste & dump
No. 2 Shaft
open cut
crib
1985 Trenching Program No. 2 Zone
1c, flow Bx, 80° tr py
85° 1d (var)
1d (var)
METERING STATION
"old" prospecting pits
ST-46
diss. py (trace to 5%) car
trace py car
4c narrow mafic dyke
qtz eyes 1-2% diss py wk sil
DV-49
DV-50
DV-51
1b, andesite, mod, sil, carb tr-1% py altered
1b, 1% py, med. carb
1, highly carb.
1c, ves. sil
1c, flow Bx
1d, 1c car
1c, flow Bx, ves. sil, carb
1d (var.) DV-28
10-20% py in narrow (4-6") fractures
DV-34/0.007-
ST-32/0.009-1.09
1d, 1c
5a DV-53
1b, tr 1% py
1f, (1ap.)
1b wk carb tr py
Blasted rubble, numerous mineralized boulders, 10-60% py in sheared altered andesite
1b wk carb, sil
1b, 1c, sil
CONSUMERS
GAS
PIPELINE
1c, car trace py
Intermed. volc
1b, wk sil, mod carb
1b med. to high carb and sil in fractures, tr py
1b
1c (1b)
1c
1b - 4b
1c - 1d
1d
1c
200

2+00 E

1+80 E

1+40 E

1+00 E

0+60 E

3+00 N

2+00 N

1+00 N

0+00

1+00 S

ARSENIC LAKE

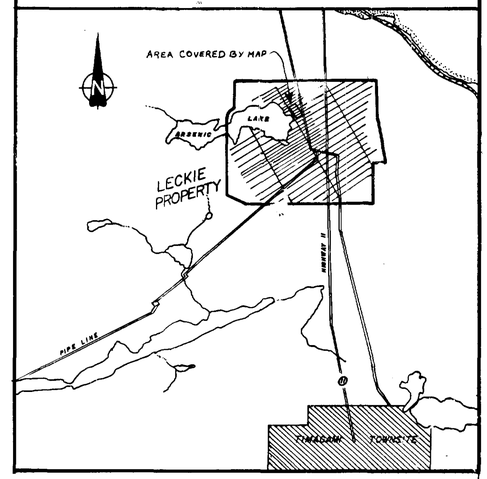
- Diabase
- Amphibolitized mafic dyke
- 5a Fine grained felsic intrusive
- 1a Massive coarse grained mafic flow
- 1b Massive fine grained flow
- 1d Variolitic or Vesicular mafic volcanics
- 1f Mafic pyroclastic Volcanic

(Var) Variolitic
(Lap) Lapilli

- QV quartz vein
- Semi massive pyrite, quartz zone
- Sheared mafic volcanics
- Quartz or Quartz-pyrite breccia
- Massive to fractured to very weakly sheared volcanic
- 60° Major shear zone; dip known, unknown
- Arsenopyrite lenses or veinlets
- ≥5% pyrite in shear planes or in fractures minor chalcopyrite

- Geological contact
- Sulphide mineralization or alteration contact
- Exposed bedrock
- Outline of excavated area

LOCATION MAP



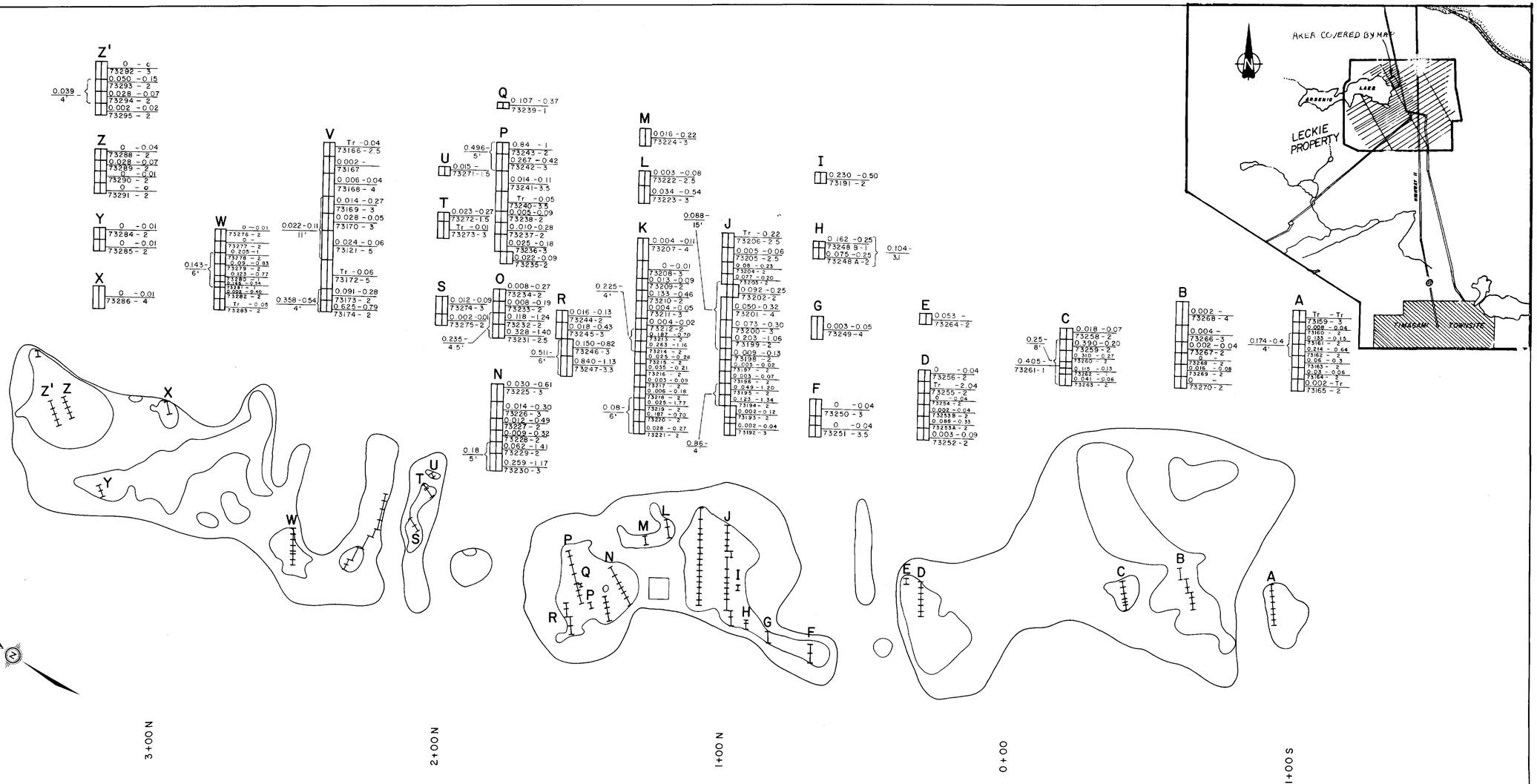
OM85-147 63.4917(1)

STROUD RESOURCES LTD.

LECKIE PROJECT

No. 1 ZONE GEOLOGY

DRAWN BY: T.S.	DATE: NOV./85
CHECKED BY: D.V.	DRAWING NO.: 2
N.T.S.	SCALE: 1" = 20'



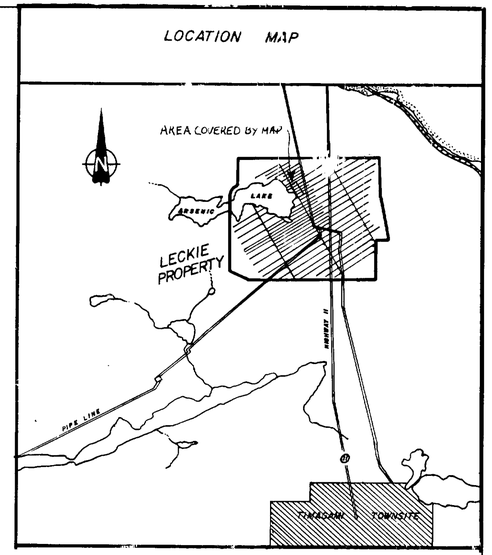
OM85-147 63.4917 (1)

STROUD RESOURCES LTD.

LECKIE PROJECT

No.1 ZONE
SAMPLING RESULTS

DRAWN BY T.J.
CHECKED BY B.S.
N.T.S.
DRAWING No. 3
SCALE 1" = 20'



2+00 E

1+80 E

1+40 E

1+00 E

0+60 E

3+00 N

2+00 N

1+00 N

0+00

1+00 S

ARSENIC LAKE

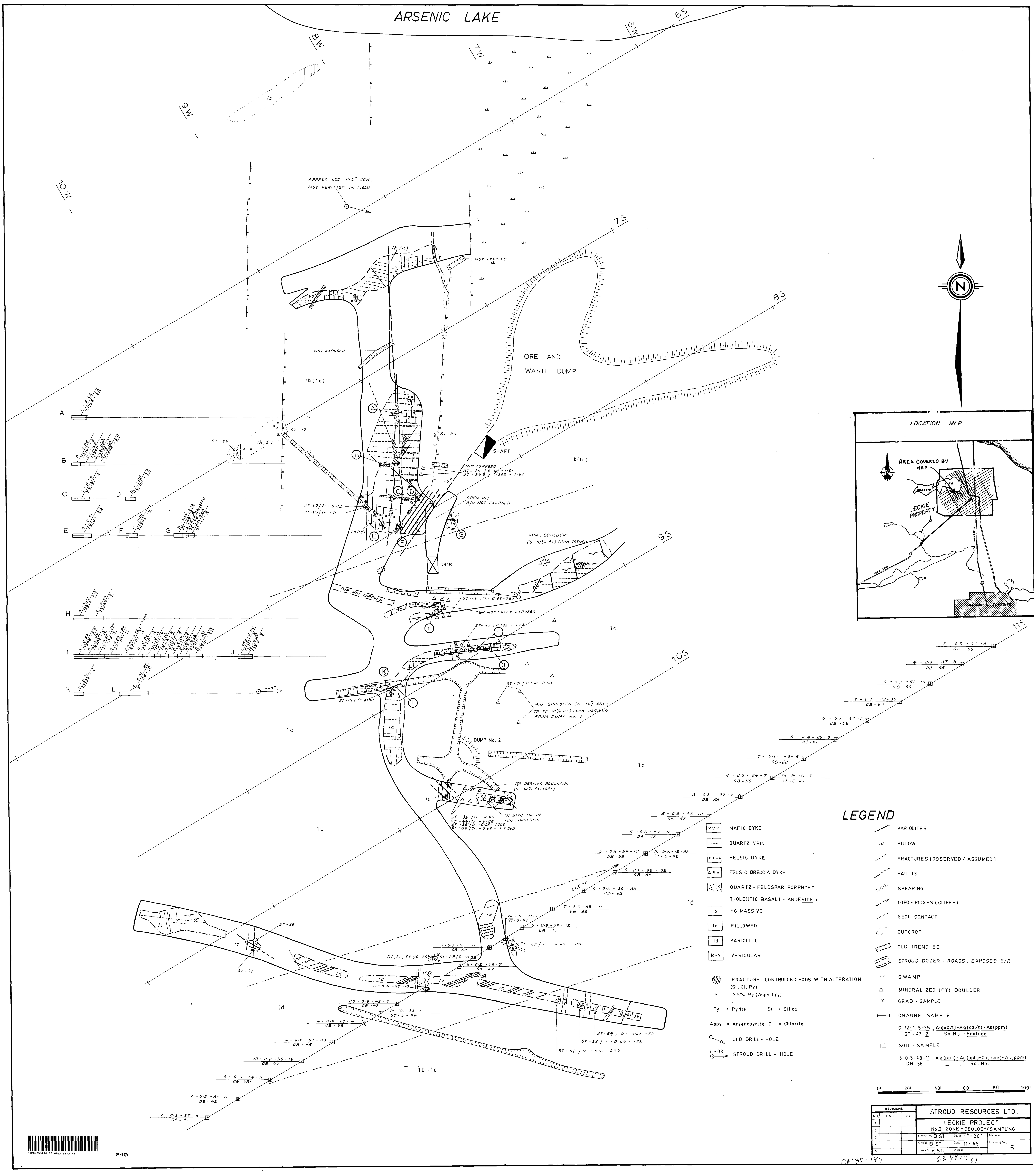
- Geological contact
- Sulphide mineralization or alteration contact
- Exposed bedrock
- Outline of excavated area
- Silicification
- Strong carbonatization
- Silicified and carbonatized

OH85-147 63.4917(1)

STROUD RESOURCES LTD.

LECKIE PROJECT
MINERALIZATION / ALTERATION

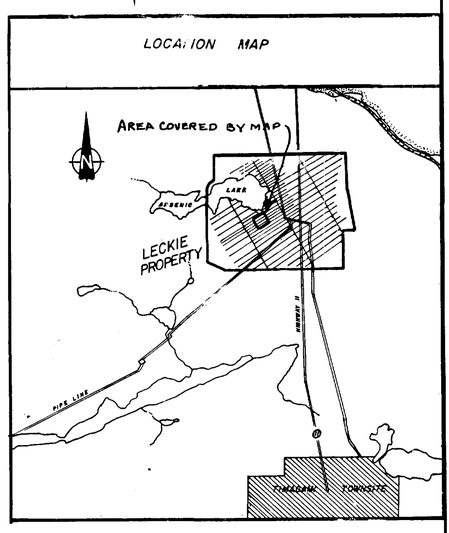
DRAWN BY T.S.	DATE SEPT/85
CHECKED BY B.S.	DRAWING No. 4
N.T.S.	SCALE 1" = 20'


ARSENIC LAKE
6S
6W
7W
8W
9W
10W
7S
8S
9S
10S
11S
1b
APPROX. LOC. "OLD" DDH, NOT VERIFIED IN FIELD
NOT EXPOSED
1b (1c)
1b(1c)
ORE AND WASTE DUMP
SHAFT
ST-17
ST-45
1b, d-v
ST-25
NOT EXPOSED
ST-24 / 0.331 - 1.01
ST-24B / 0.306 - 1.82
OPEN PIT
B/R NOT EXPOSED
ST-20 / Tr. - 0.02
ST-29 / Tr. - Tr.
CRIB
MIN. BOULDERS (5-10% PY) FROM TRENCH
B/R NOT EXPOSED
ST-62 / Tr. - 0.07 - 720
B/R NOT FULLY EXPOSED
ST-43 / 0.132 - 1.62
ST-21 / Tr. 0.02
ST-31 / 0.158 - 0.58
MIN. BOULDERS (5-50% ASPY TR. TO 30% PY) PROB. DERIVED FROM DUMP No. 2
DUMP No. 2
B/R DERIVED BOULDERS (5-30% PY, ASPY)
IN SITU LOC. OF MIN. BOULDERS
ST-35 / Tr. - 0.06
ST-44 / Tr. - 0.06
ST-56 / 0 - 0.05 - 1000
ST-57 / Tr. - 0.05 - > 2000
1c
1d
1b - 1c
ST-36
ST-37
Cl, Si, PY (10-30%)
ST-28 / Tr. - 0.02
ST-55 / Tr. - 0.05 - 142
ST-54 / 0 - 0.02 - 59
ST-53 / 0 - 0.04 - 153
ST-52 / Tr. - 0.01 - 904
SLOPE
A 0 - 0.02 / 73296 - 5.5
D Tr. - 0.05 / 73305 - 3.5
K 0 - 0.01 / 73304 - 3
L 0 - 0.01 - 88 / ST - 58 - 10
7 - 0.5 - 45 - 8 / DB - 66
4 - 0.3 - 37 - 9 / DB - 65
4 - 0.2 - 51 - 10 / DB - 64
7 - 0.1 - 39 - 36 / DB - 63
6 - 0.3 - 40 - 7 / DB - 62
5 - 0.4 - 25 - 8 / DB - 61
7 - 0.1 - 43 - 6 / DB - 60
4 - 0.3 - 24 - 7 / DB - 59
Tr. - Tr. - 14 - 5 / ST - 5 - 03
3 - 0.3 - 27 - 4 / DB - 58
5 - 0.3 - 46 - 10 / DB - 57
5 - 0.5 - 49 - 11 / DB - 56
5 - 0.9 - 54 - 17 / DB - 55
Tr. - 0.01 - 12 - 93 / ST - 5 - 02
6 - 0.2 - 36 - 32 / DB - 54
4 - 0.5 - 39 - 33 / DB - 53
7 - 0.5 - 58 - 11 / DB - 52
Tr. - Tr. - 21 - 5 / ST - 5 - 01
6 - 0.3 - 34 - 12 / DB - 51
5 - 0.3 - 43 - 11 / DB - 50
6 - 0.2 - 48 - 7 / DB - 49
5 - 0.5 - 55 - 13
80 - 0.4 - 42 - 7 / DB - 47
Tr. - Tr. - 22 - 7 / ST - 5 - 04
4 - 0.4 - 60 - 4 / DB - 46
4 - 0.2 - 51 - 33 / DB - 45
12 - 0.2 - 56 - 16 / DB - 44
6 - 0.5 - 54 - 11 / DB - 43
7 - 0.2 - 58 - 11 / DB - 42
7 - 0.3 - 57 - 8 / DB - 41
LOCATION MAP
AREA COVERED BY MAP
LECKIE PROPERTY
ARSENIC
LAKE
PIPE LINE
TIMAGAMI TOWNSITE
N
LEGEND
MAFIC DYKE
QUARTZ VEIN
FELSIC DYKE
FELSIC BRECCIA DYKE
QUARTZ - FELDSPAR PORPHYRY
THOLEIITIC BASALT - ANDESITE :
1b FG MASSIVE
1c PILLOWED
1d VARIOLITIC
1d-v VESICULAR
FRACTURE - CONTROLLED PODS WITH ALTERATION (Si, Cl, Py)
> 5% Py (Aspy, Cpy)
Py = Pyrite Si = Silica
Aspy = Arsenopyrite Cl = Chlorite
OLD DRILL - HOLE
L-03 STROUD DRILL - HOLE
VARIOLITES
PILLOW
FRACTURES (OBSERVED / ASSUMED)
FAULTS
SHEARING
TOPO - RIDGES (CLIFFS)
GEOL. CONTACT
OUTCROP
OLD TRENCHES
STROUD DOZER - ROADS, EXPOSED B/R
SWAMP
MINERALIZED (PY) BOULDER
GRAB - SAMPLE
CHANNEL SAMPLE
0.12 - 1.5 - 35 / ST - 47 - 2 = Au(oz/t) - Ag(oz/t) - As(ppm) / Sa. No. - Footage
SOIL - SAMPLE
5 - 0.5 - 49 - 11 / DB - 56 = Au(ppb) - Ag(ppb) - Cu(ppm) - As(ppm) / Sa. No.
0' 20' 40' 60' 80' 100'
REVISIONS
NO. DATE BY
STROUD RESOURCES LTD.
LECKIE PROJECT
No. 2 - ZONE - GEOLOGY / SAMPLING
Drawn by B.ST. Scale 1" = 20' Material
Chk'd. B.ST. Date 11/85. Drawing No. 5
Traced R.ST. App'd.
OM85-147
63.4917 (1)
31M04SW0098 63.4917 STRATHY
240

ARSENIC LAKE

6W 6S 7W 7S 8W 8S 9W 9S 10W 10S 11S 12S

LOCATION MAP



LEGEND

- Outcrop, exposed-B/R in trenches
- -30 / 10 VLF readings and contours (Fraser)
- Zone of strong silification
- Zone of pervasive pyrite mineralization (1 - 5% Py)
- AS AS Anomalous As in soil - samples (line 11 S only)
- Shearzones (assumed)
- Possible extent of mineralization (Au - Ag).

0' 20' 40' 60' 80' 100'

REVISIONS		
NO.	DATE	BY
1		
2		
3		
4		
5		

STROUD RESOURCES LTD.

LECKIE PROJECT
No.2-ZONE - INTERPRETATION

Drawn by B. ST.	Scale 1"=20'	Material
Chk'd B. ST.	Date 11/85	Drawing No. 6
Traced R. ST.	Appr'd.	

ON85-147

63.4917(1)

250

No. 1 EXTENSION ZONE

No. 3 ZONE

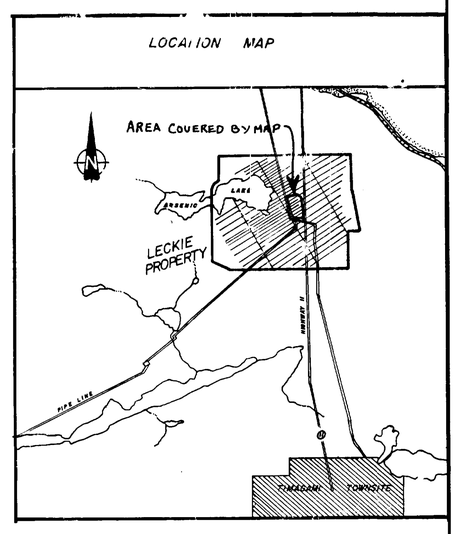
L5S
L6S
L7S
L8S
L9S
L10S
L11S
L12S
L13S
L14S
1E
2E
3E
PIPELINE ACCESS ROAD
N-7 -45°
N-8 -45°(?)
N-6 -90°
N-3/4/5 -45°/-65°/-85°
N-12

WEAKLY SHEARED SIL 4a, 5-10% PY LOCAL ASPY IN FRACTURES
FRACTURED 4a MOD - WK SIL
WK SHEAR
WK TO MOD FRACTURING WK CAR
WK FRACTURING
SIL BX ZONE Tr.-2% PY
FRACTURE ZONE 10-20% PY QTZ STRINGERS
Tr Po
4a Tr. PY
4a
1b
1d (Var), 1c
1d (Var, Ves)
1b (1d)
1b - 1c
Old trench
SPECULAR HEMATITE
DV-15 / 0.028 - 0.25
DV-53 / 0.235 - 0.78
ST-51 / 0.039 - 0.18 - > 2000
ST-50 / 0.02 - 0.05 - > 2000
1C, Sil, Car Tr - 2% Py
1C, 15 - 10-15% Py
25% ASPY 15% Py } 1-5' WIDE

A 0.005 - 0.08 / DV-54 - 4
B 0.015 - 0.2 / DV-52 - 2.5
C 0.042 - 0.09 / 73178 - 2
D 0.034 - 0.03 / 73182 - 4
0.064 - 0.04 / 73181 - 2.5
0.014 - 0.03 / 73179 - 4
Tr. - Tr. / 73180 - 2.5
E 0.016 - Tr. / 73183 - 5
F 0.008 - Tr. / 73184 - 3
G 0.072 - 0.19 / 73344 - 2.5
H 0.057 - 0.05 / 73355 - 2.75
Tr. - 0.02 / 73353 - 3
0.024 - 0.05 / 73354 - 5
Tr. - 0.01 / 73352 - 3
Tr. - 0.02 / 73350 - 3
0.018 - 0.22 / 73351 - 2
0.008 - 0.13 / 73349 - 2
Tr. - 0.02 / 73342 - 2.5
Tr. - 0.02 / 73345 - 3
0 - 0.06 / 73347 - 2.5
Tr. - 0.02 / 73346 - 4
I 0.013 - 0.11 / 73356 - 2
0.018 - 0.16 / 73357 - 2
J Tr. - 0.06 / DV-13 - 2
0.018 - 0.13 / DV-14 - 2
K Tr. - 0.04 / 73358 - 2
L 0 - 0.01 / 73325 - 3
0.006 - 0.02 / 73324 - 2
0.092 - 0.34 / 73323 - 5
0.007 - 0.08 / 73322 - 2
0.317 - 0.81 / 73321 - 1
0.01 - 0.06 / 73320 - 3
M 0 - 0.02 / 73326 - 2
Tr. - 0.04 / 73328 - 3.5
0 - 0.02 / 73335 - 5.5
0 - 0.02 / 73336 - 4
0 - 0.01 / 73337 - 5.5
Tr. - 0.04 / 73334 - 3
0.01 - 0.04 / 73333 - 3
Tr. - 0.02 / 73331 - 3
0.008 - 0.01 / 73332 - 3
0.009 - 0.02 / 73329 - 4.5
Tr. - 0.01 / 73330 - 4
0 - 0.02 / 73327 - 4
N 0 - 0.04 / 73343 - 3.5
Tr. - 0.02 / 73341 - 1.5
0 - 0.02 / 73342 - 4
0.047 - 0.08 / 73339 - 1.5
Tr. - 0.02 / 73340 - 1.5
0 - 0.01 / 73338 - 3.5
O 0.008 - 0.07 / 73177 - 3
Tr. - 0.02 / 73185 - 3
Tr. - 0.08 / 73175 - 2.5
0.43 - 0.8 / 73176 - 2
Tr. - 0.13 / 73186 - 2.5

1 - 0.3 - 58 - 9 / DB - 17
12 - 0.2 - 50 - 28 / DB - 16
16 - 0.1 - 33 - 13 / DB - 15
6 - 0.2 - 30 - 2 / DB - 14
5 - 0.2 - 23 - 9 / DB - 13
7 - 0.2 - 22 - 4 / DB - 12
4 - 0.2 - 39 - 6 / DB - 11
5 - 0.2 - 29 - 7 / DB - 10
3 - 0.4 - 39 - 8 / DB - 9
4 - 0.3 - 72 - 7 / DB - 8
3 - 0.5 - 45 - 4 / DB - 7
5 - 0.9 - 49 - 5 / DB - 6
8 - 0.2 - 48 - 8 / DB - 5
5 - 0.4 - 47 - 10 / DB - 4
16 - 0.6 - 82 - 42 / DB - 3
6 - 0.9 - 53 - 17 / DB - 2
4 - 1.3 - 132 - 524 / DB - 1
1 - < 0.1 - 19 - 12 / DB - 33
1 - 0.1 - 16 - 9 / DB - 32
1 - 0.5 - 19 - 8 / DB - 31
8 - 0.1 - 17 - 7 / DB - 30
8 - 0.3 - 33 - 5 / DB - 29
6 - 0.2 - 44 - 9 / DB - 28
3 - 0.3 - 47 - 6 / DB - 27
5 - 0.7 - 45 - 7 / DB - 26
11 - 0.5 - 46 - 13 / DB - 25
18 - 0.6 - 50 - 4 / DB - 24
52 - 0.3 - 46 - 10 / DB - 23
7 - 0.4 - 51 - 15 / DB - 22
7 - 0.4 - 67 - 28 / DB - 21
13 - 0.5 - 77 - 11 / DB - 20
6 - 0.7 - 82 - 7 / DB - 19
8 - 0.9 - 70 - 7 / DB - 18

LOCATION MAP



LEGEND

- Diabase
- Felsic dyke, quartz feldspar porphyry
- Mafic dyke; 6a amphibolitized, 6b altered mica, possible lamprophyre
- 4a Gabbro sill

MAFIC FLOW:

- 1a Massive coarse grained
- 1b Massive fine grained
- 1c Pillowed
- 1d Variolitic or vesicular
- 1f Pyroclastic
- (Var) Variolitic
- (Lap) Lapilli
- (Ves) Vesicular
- Sil Silicified
- Car Carbonated
- Cl Chlorite

- Qv Quartz vein
- Sheared mafic volcanics
- Quartz or quartz - pyrite Breccia
- Major shear zones; dip known, unknown
- Arsenopyrite lenses or veinlets
- ≥5% Pyrite in shear planes or in fractures Minor chalcopyrite
- Shistosity
- Trend and plunge of lineation
- Fracturing
- Geological contact
- Exposed bedrock
- Outline of excavated area
- DDH (Niemetz), vertical - inclined

- Grab sample
- Channel sample: 0.33-0.8->2000 / 73176 - 2 = Au(oz/t) - Ag(oz/t) - As(ppm) / Sa.No. - Footage
- Soil sample: 13-0.5-77-11 / DB-20 = Au(ppb) - Ag(ppb) - Cu(ppm) - As(ppm) / Sa.No.

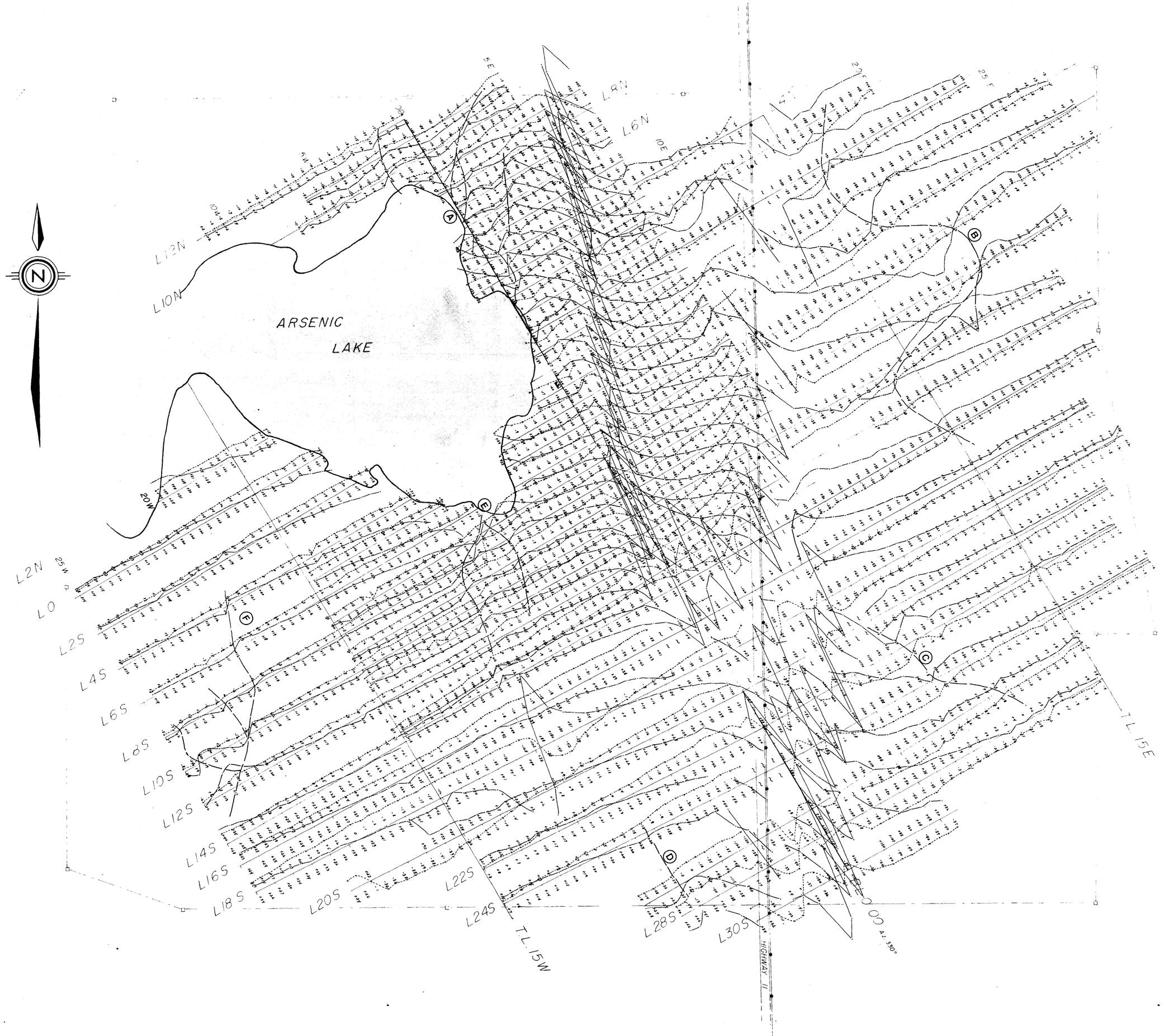
0' 20' 40' 60' 80' 100'

REVISIONS			STROUD RESOURCES LTD.
NO.	DATE	BY	
1			LECKIE PROJECT
2			NIEMETZ, No. 1 EXTENSION / No. 3 ZONES
3			Drawn by D.V./B.ST. Scale 1" = 20' Material
4			Chk'd. D.V./B.ST. Date 11/85. Drawing No. 7
5			Traced R.ST. Appd.

OM85-147

63.4917(1)

260



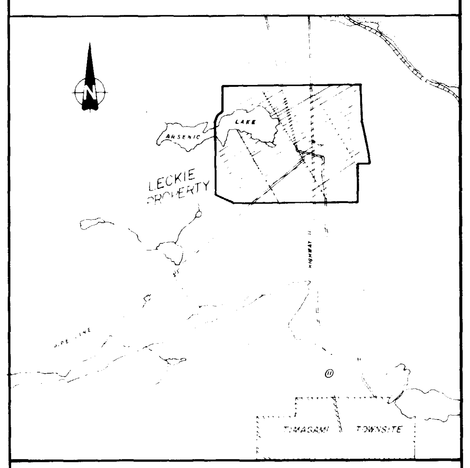
N

SURVEY DIRECTION

N

NSS

LOCATION MAP



LEGENDE GEOPHYSIQUE

LEVÉ ELECTROMAGNETIQUE

Profil HEM ☐ VLF ☑

Délimitation de zone conductrice et identification

Conducteur étroit avec identification

Conducteur faible ou probable

PO. - 100%

LEVÉ MAGNETOMETRIQUE

Contour magnétique

Dépression magnétique

Axe magnétique

0 γ =

LEGENDE TOPOGRAPHIQUE

Sondage proposé

Affleurement possible

Poteau de claim

Chemin d'accès

Ligne électrique

Bordure de lac

Ruisseau

Marécage

OMBS-147 63.4917(c)

LACANA MINING LTD.

ELECTROMAGNETIC (V.L.F.) SURVEY

SPECIFICATIONS

Inst. utilisé	GEONICS	Modèle	E.M. 16
Fréquence	NSS	Station	0 γ =
Sélection			

EXPLOREX 1130, 8e RUE VAL D'OR, QUE. J9P 3N6

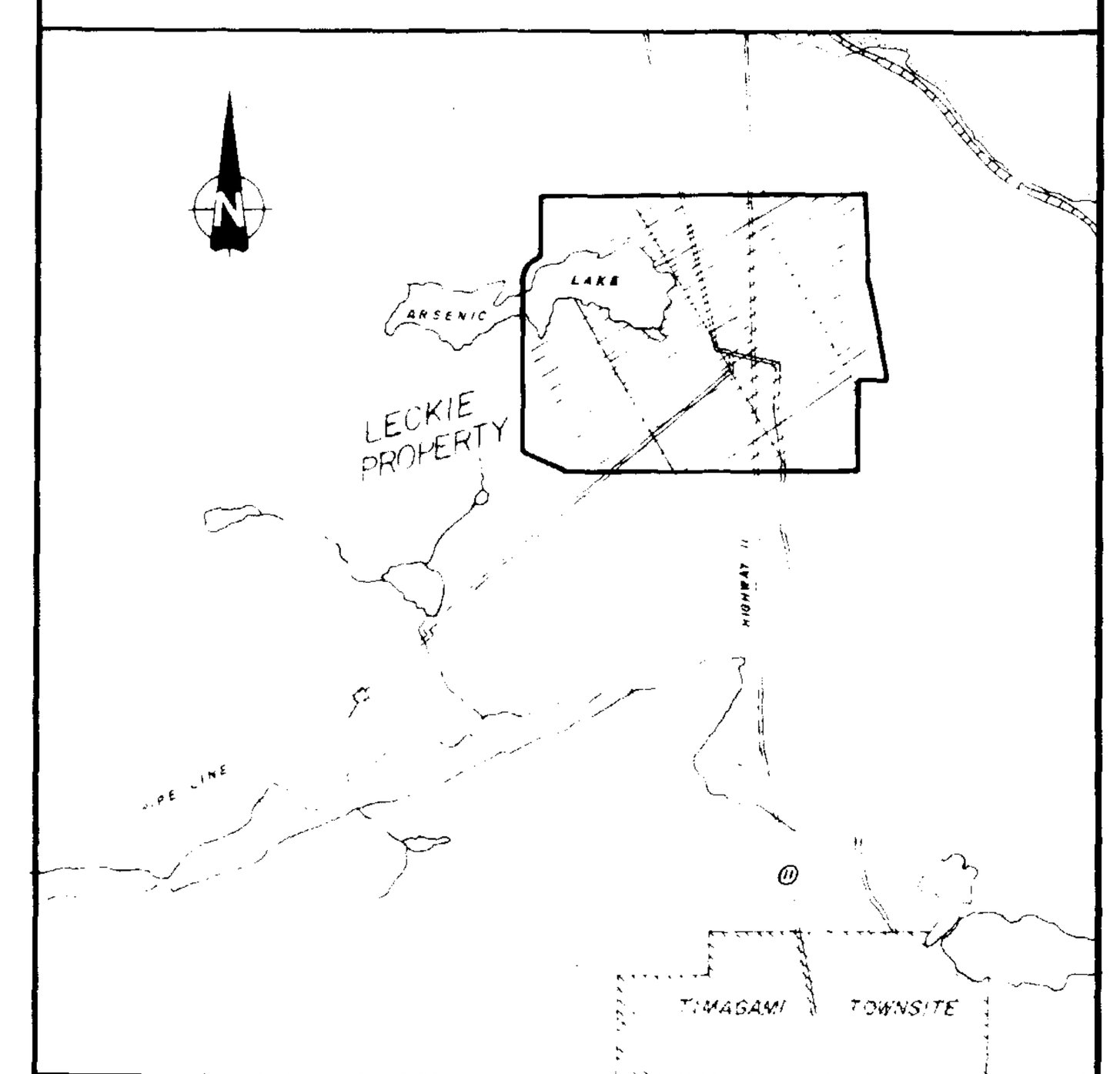
Secteur	TEMAGAMI		
Projet	LECKIE GOLD MINE		
Numéro			
Carte de base			
Relevé par	M. GUILLEMETTE	Date	SEPT. 85
Dessiné par	C. LABONTE	Date	
Approuvé par		Date	

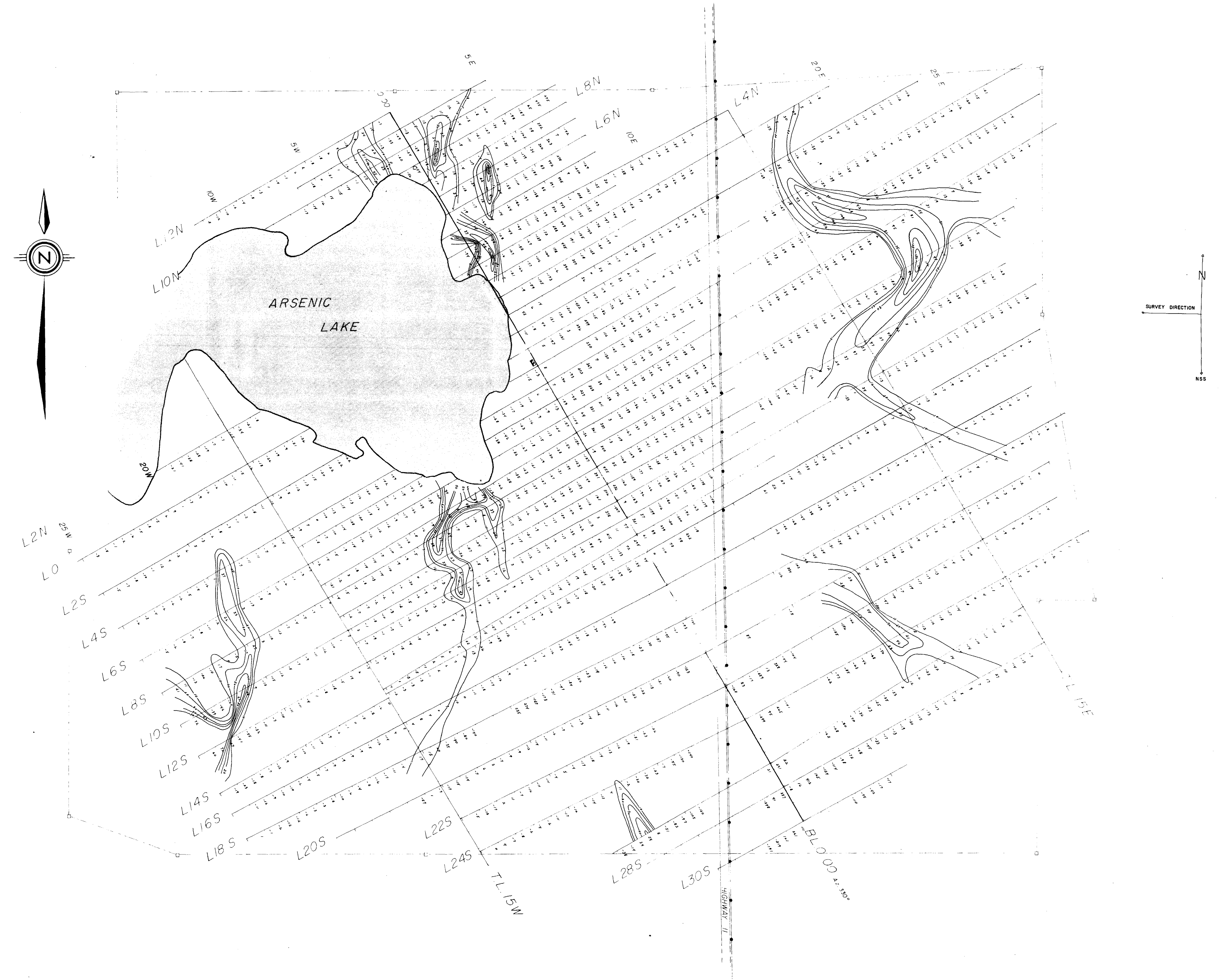
Echelle 1" = 200'

Canton STRATHY TWP.

N.T.S.

270





— LEGENDE GEOPHYSIQUE —

LEVE ELECTROMAGNETIQUE

Profil HEM VLF

Délimitation de zone conductrice et identification

Conducteur étroit avec identification

Conducteur faible ou probable

LEVE MAGNETOMETRIQUE

Contour magnétique

Dépression magnétique

Axe magnétique

— LEGENDE TOPOGRAPHIQUE —

Sondage proposé	Ligne électrique
Affleurement possible	Bordure de lac
Poteau de claim	Ruisseau
Chemin d'accès	Marécage

OM85-147 63.4917(2)

LACANA MINING LTD

ELECTROMAGNETIC (V.L.F.) SURVEY
(FRASER CONTOURS)

SPECIFICATIONS

Instrument	GEONICS	Modèle	E.M. 16		
Fréquence	NSS	Station			0 γ =

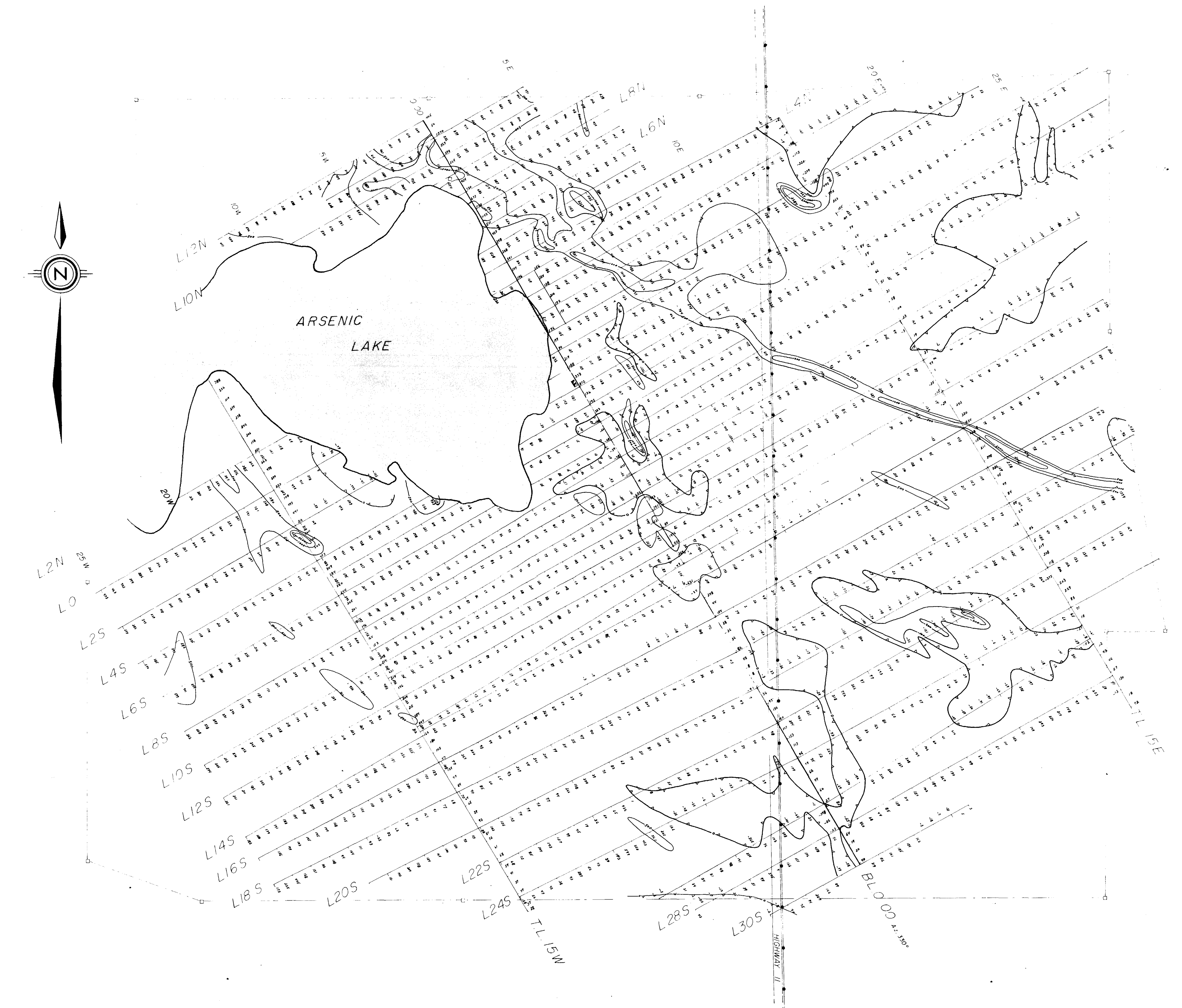
EXPLOREX 1130, 8e RUE VAL D'OR, QUE. J9P 3N6

TEMAGAMI

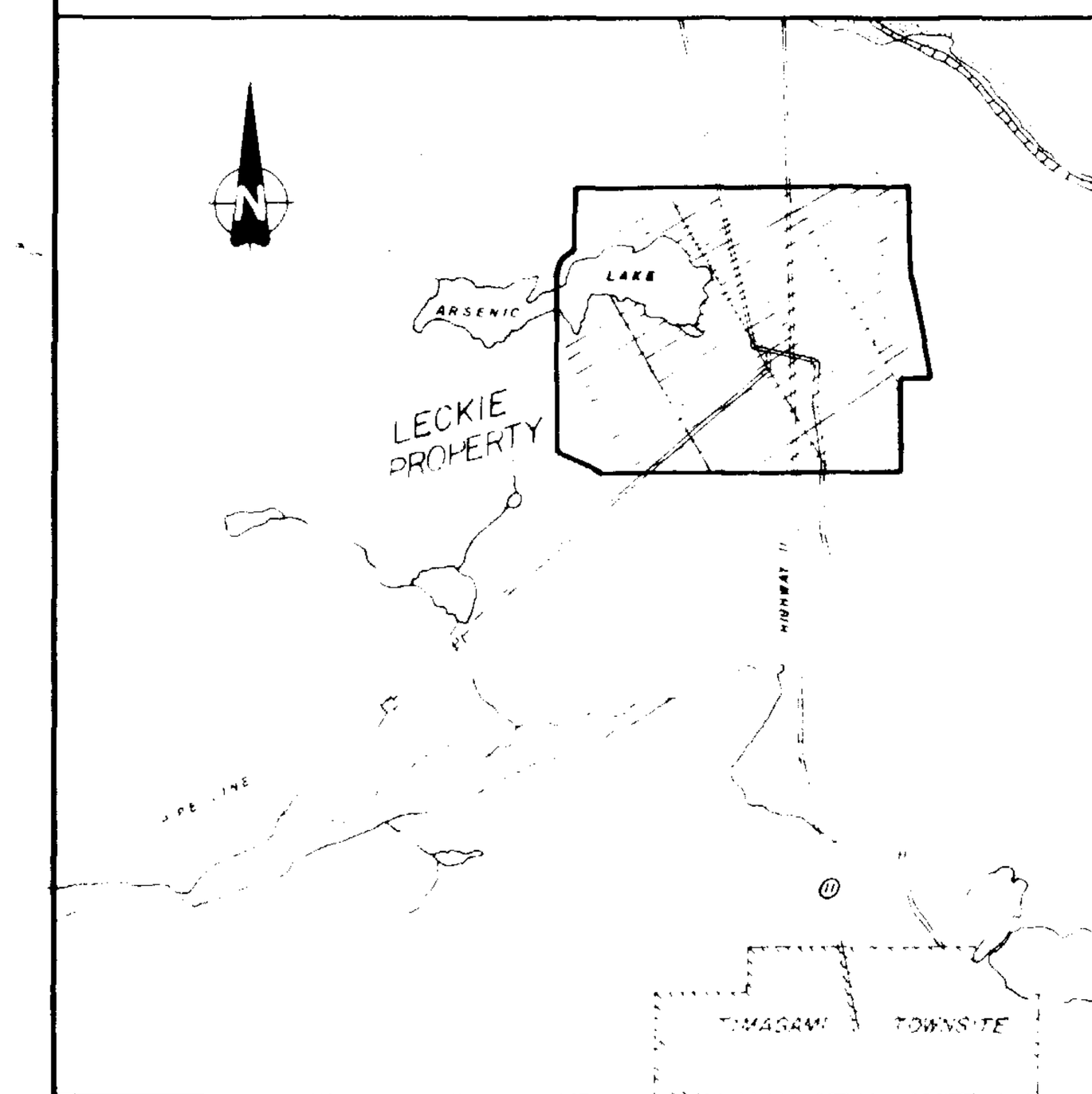
LECKIE GOLD MINE

Relevé par	M. GUILLEMETTE	Date	SEPT. 85	Échelle	1" = 200'
Dessiné par	C. LABONTE	Date		Canton	STRATHY TWP.
Approuvé par	[signature]	Date			

280



LOCATION MAP



LEGENDE GEOPHYSIQUE

LEVE ELECTROMAGNETIQUE

Profil HEM VLF

Délimitation de zone conductrice et identification

Conducteur étroit avec identification

Conducteur faible ou probable

LEVE MAGNETOMETRIQUE

Contour magnétique

Dépression magnétique

Axe magnétique

0γ =

LEGENDE TOPOGRAPHIQUE

Sondage proposé — Ligne électrique

Affleurement possible — Bordure de lac

Poteau de claim — Ruisseau

Chemin d'accès — Marécage

OM85-147 63.4917

LACANA MINING LTD.

MAGNETOMETER SURVEY

SPECIFICATIONS

E.D.A. — OMNI IV — E.D.A.

0γ -

EXPLOREX 1130, 8e RUE VAL D'OR, QUE. J9P 3N6

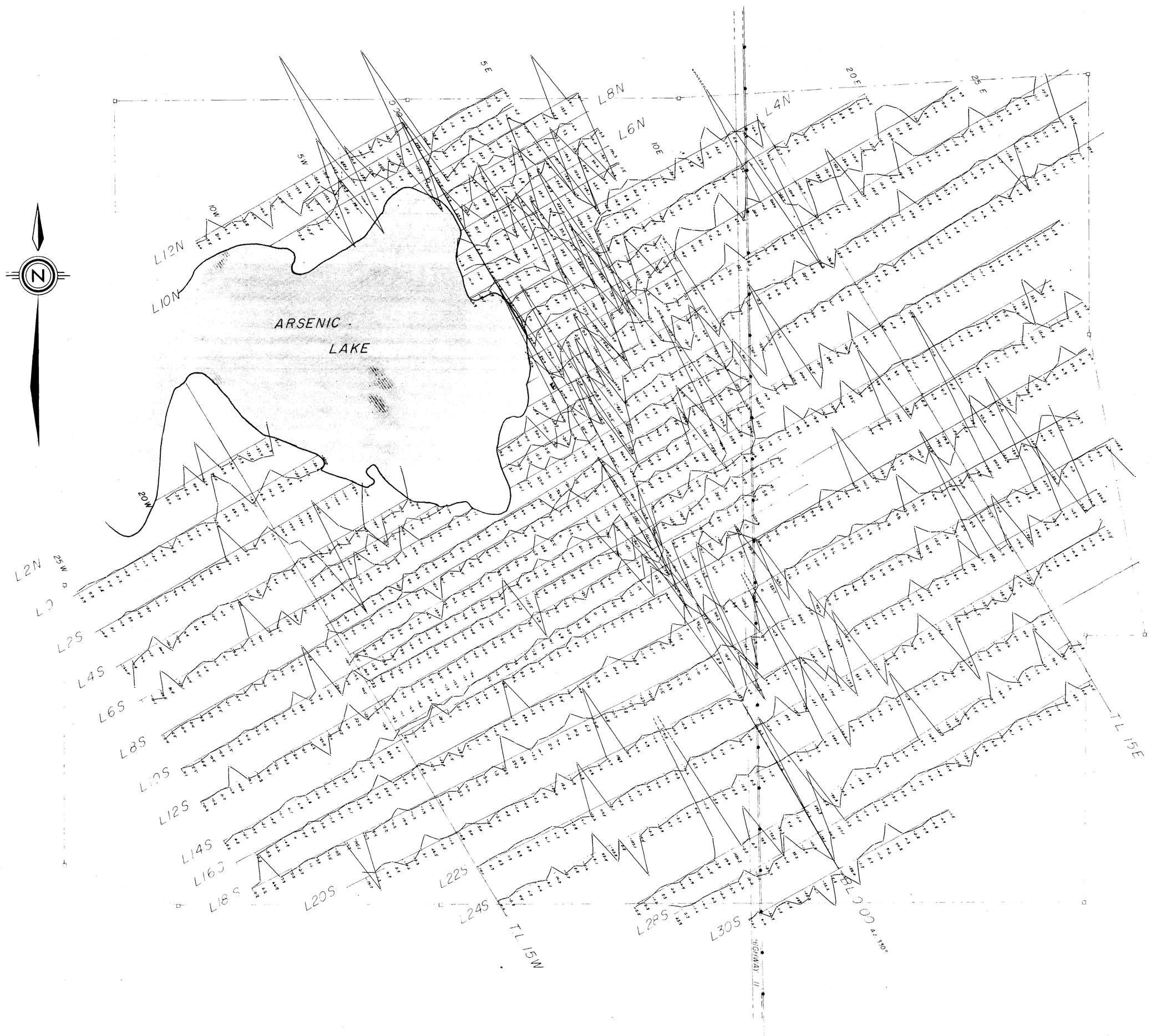
TEMAGAMI

LECKIE GOLD MINE

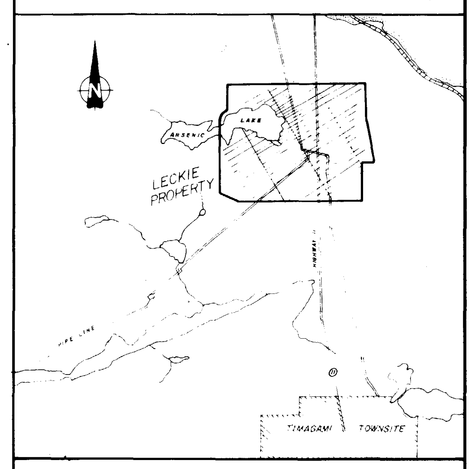
Y. GUILLEMETTE — SEPT. 85 — 1" = 200'

C. LABONTE — STRATHY TWP.

290



LOCATION MAP



LEGENDE GEOPHYSIQUE

LEVE ELECTROMAGNETIQUE

Profil HEM ☐ VLF ☐
Ex. conformes
Ex. passés
1Cm = %

- Delimitation de zone conductrice et identification
- Conducteur étroit avec identification
- Conducteur faible ou probable

LEVE MAGNETOMETRIQUE

PROFIL GRADIENT
1 PO. = 100 %

- Contour magnetique
- Dépression magnetique
- Axe magnetique

LEGENDE TOPOGRAPHIQUE

- Sondage propose
- Affleurement possible
- Poteau de claim
- Chemin d'acces
- Ligne electrique
- Bordure de lac
- Ruisseau
- Marecage

OM85-147 63.4917(2)

LACANA MINING LTD.

MAGNETOMETER SURVEY (GRADIENT)

SPECIFICATIONS

Type utilisé	E.D.A.	Modèle OMNI IV	Sys de base E.D.A.
Fréquence		Station	OY-
Séparation			

EXPLOREX 1130, 8e RUE VAL D'OR, QUE. J9P 3N6

Secteur TEMAGAMI
Projet LECKIE GOLD MINE
Numéro

Carte de base
Relevé par Y. GUILLEMETTE — Date SEPT. 85 — Echelle 1" = 200'
Dessiné par C. LABONTE — Date — Canton STRATHY TWP.
Approuvé par — Date — No

300

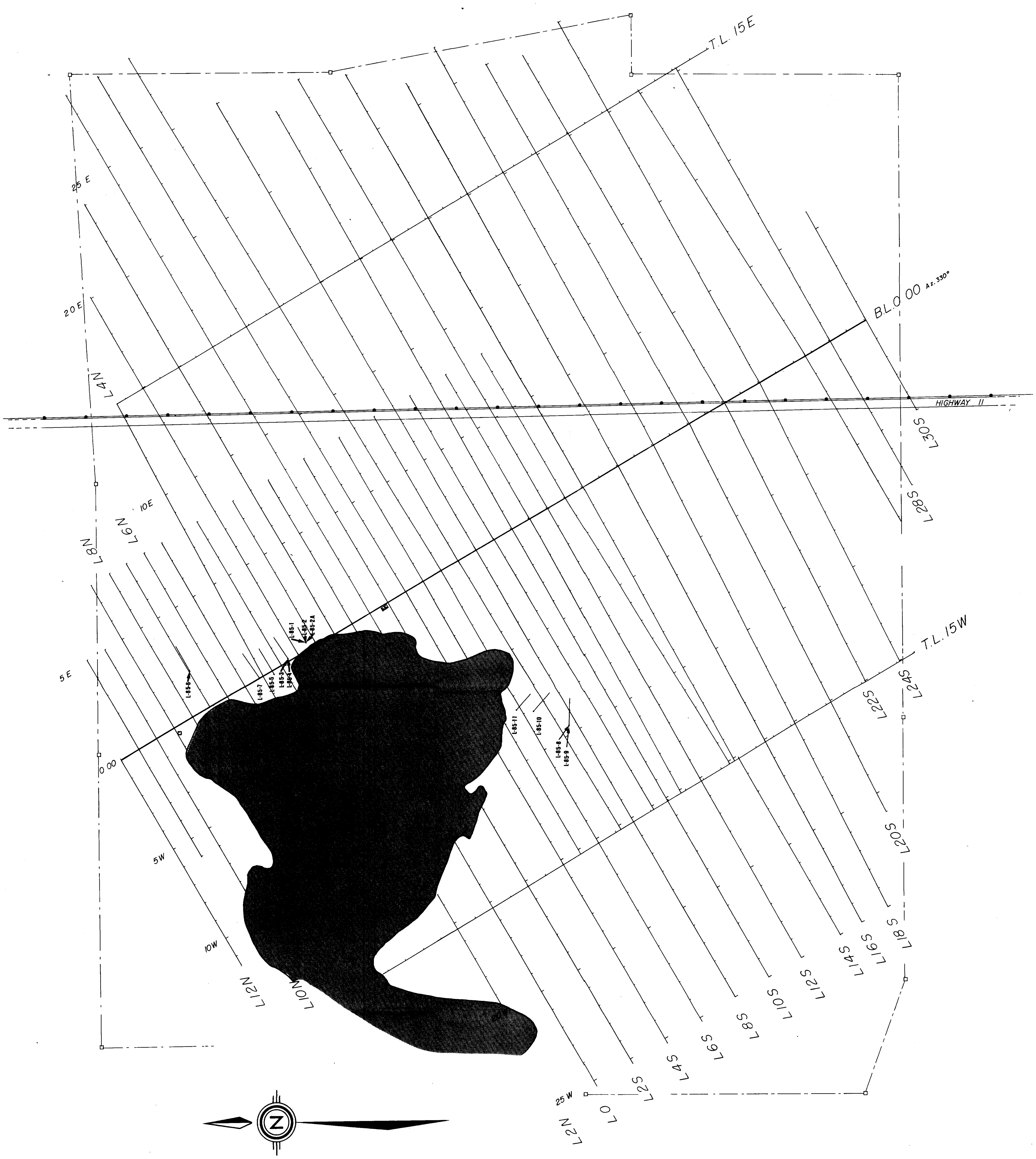
STROUD RESOURCES LTD.

LECKIE PROJECT
DIAMOND DRILL PLAN

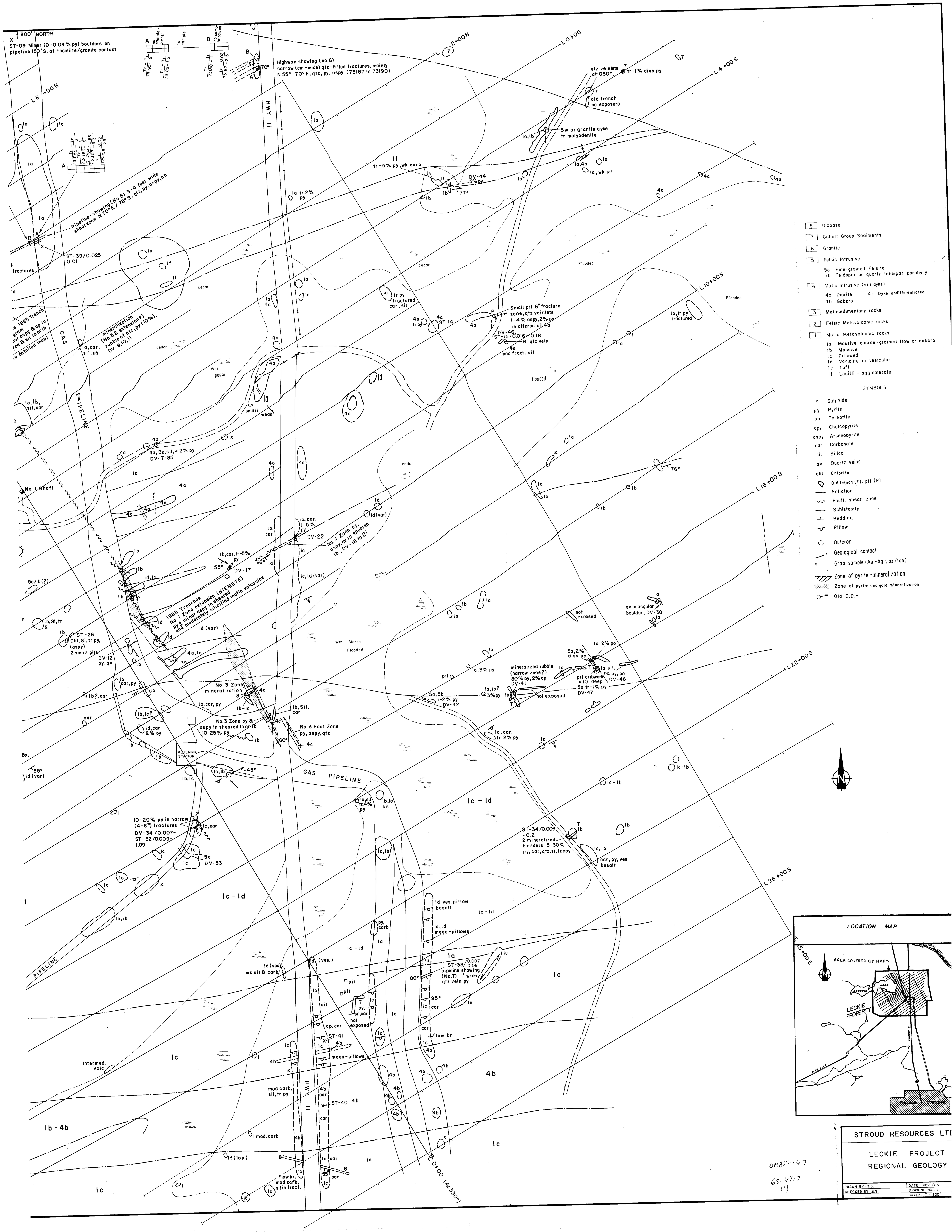
DATE : DEC. /85

SCALE: 1" = 200'

OM85-147 63.4917(3)



310


800' NORTH
ST-09 Miner. (0-0.04% py) boulders on pipeline (50'S. of tholeiite/granite contact
Highway showing (no.6)
narrow (cm-wide) qtz-filled fractures, mainly N 55°-70° E, qtz, py, aspy (73187 to 73190).
Pipeline-showing (No.5) 3-4 feet wide shearzone N 70° E / 78° S, qtz, py, aspy, ch
ST-39/0.025-0.01
L 8 +00 N
L 2+00N
L 0+00
L 4 +00 S
L 10+00S
L 16+00S
L 22+00S
L 28+00S
L 15+00E
0+00 (Az.330°)
HWY 11
GAS PIPELINE
qtz veinlets at 050°
tr-1% diss py
old trench no exposure
5w or granite dyke tr molybdenite
tr -5% py, wk carb
DV-44 5% py
Small pit 6" fracture zone, qtz veinlets 1-4% aspy, 2% py in altered sil 4a
DV-46, ST-15/0.016-0.18
6" qtz vein
mod fract, sil
lb, tr py fractured
Flooded
flooded
cedar
Wet cedar
Wet Marsh Flooded
mineralization (No.3 E extension?) rubble of qtz, py (10%), DV-9,10,11
4a, Bx, sil, < 2% py DV-7-85
No. 1 Shaft
lb, car, tr-5% py
DV-17
DV-22
No. 4 Zone py, aspy, qv in sheared lb; DV-18 to 21
1985 Trenches No. 1 Zone extension (NIEMETE) py ± minor aspy in sheared and moderately silicified mafic volcanics
ST-26 Chl, Si, tr py, (aspy) 2 small pits
DV-12 py, qv
No. 3 Zone mineralization
No. 3 Zone py & aspy in sheared lc or lb 10-25% py
No. 3 East Zone py, aspy, qtz
METERING STATION
qv in angular boulder, DV-38
mineralized rubble (narrow zone?) 80% py, 2% cp DV-41
pit cribwork >10' deep
5a tr-1% py DV-47
la sil, 1% py, po DV-46
5a, 2% diss py
not exposed
5a, 5b 1-2% py DV-42
10-20% py in narrow (4-6") fractures
DV-34 /0.007-
ST-32 /0.009-1.09
DV-53
ST-34/0.006-0.2
2 mineralized boulders: 5-30% py, car, qtz, si, tr cpy
car, py, ves. basalt
ld ves. pillow basalt
lc, ld mega-pillows
ST-33/0.007-0.06
pipeline showing (No.7) 1' wide qtz vein py
flow br
mega-pillows
ST-41
ST-40
Intermed. volc
mod. carb, sil, tr py
flow br, mod. carb, sil in fract.
lc - ld
lb - 4b
8 Diabase
7 Cobalt Group Sediments
6 Granite
5 Felsic Intrusive
5a Fine-grained Felsite
5b Feldspar or quartz feldspar porphyry
4 Mafic Intrusive (sill, dyke)
4a Diorite
4b Gabbro
4c Dyke, undifferentiated
3 Metasedimentary rocks
2 Felsic Metavolcanic rocks
1 Mafic Metavolcanic rocks
la Massive course-grained flow or gabbro
lb Massive
lc Pillowed
ld Variolite or vesicular
le Tuff
lf Lapilli - agglomerate
SYMBOLS
S Sulphide
py Pyrite
po Pyrhotite
cpy Chalcopyrite
aspy Arsenopyrite
car Carbonate
sil Silica
qv Quartz veins
chl Chlorite
Old trench (T), pit (P)
Foliation
Fault, shear-zone
Schistosity
Bedding
Pillow
Outcrop
Geological contact
Grab sample / Au-Ag (oz/ton)
Zone of pyrite-mineralization
Zone of pyrite and gold mineralization
Old D.D.H.
N
LOCATION MAP
AREA COVERED BY MAP
LECKIE PROPERTY
PIPE LINE
STROUD RESOURCES LTD
LECKIE PROJECT
REGIONAL GEOLOGY
DRAWN BY: T.G.
CHECKED BY: B.S.
DATE: NOV./85
DRAWING NO.: 1
SCALE: 1" = 100'
OM85-147
63.4917 (1)