REPORT ON FIELD ACTIVITIES

SUMMER - 1986

MCVICAR LAKE PROPERTY
(Long Lake Area)

NORTHWESTERN ONTARIO

OMEP PROJECT OM86-1-C-95

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CONCLUSIONS AND RECOMMENDATIONS

Two areas of favourable geology, lithogeochemical, geochemical and geophysical results were located during the summer. These include a large scale isoclinally folded unit of metasedimentary rocks which incorporate ironstones. The second area is an area of mafic to intermediate tuffs which has been intruded by an anorthosite and has associated with it quartz veining and intense fuchsite alteration. Several small isolated showings in metavolcanic units and felsic dykes were also located. Area 1 has in the report been split into A011 and A012. They comprise the same elements, but were separated due to survey results.

The area comprises the target area selected for the project, being composed of a complexly folded and compressively stressed unit of metasedimentary rocks containing abundant iron formation in contact in the southeast with a metavolcanic belt and intruded in the north and west by a felsic porphyry. The unit has also been faulted several times.

All surveys over the area showed anomalous results. The highest lithogeochemical assay was 815 ppb Au (.038 oz/T) in a sulphidized ironstone directly related to the felsic intrusive contact. A B_1 soil horizon sample returned a result of .026 oz/T Au and eight humus samples ranging from 30 ppb Au to 155 ppb Au. Mineralization associated with gold anomalies appears to be located closely to the metasedimentary-intrusive contact while anomalous base metal values with only occasional gold are located along the metasedimentary-metavolcanic contact. Geophysics outlined some high priority targets, mainly just north of the actual fold closure and also outlined the lineaments and hinted at sulphide mineralization in these. Due to poor bedrock exposure in this area further work must comprise systematic drill testing of geological/geophysical targets. Priority drill targets comprise areas of EM conductivity within or marginal to tectonically thickened iron formation which shows evidence of decreased

Conclusions and Recommendations (Continued)

magnetic susceptibility (suggesting sulphidization) and/or brittle deformation (conduits for mineralizing fluids) (R. Thomas, pers. comm.).

The second area is a unit of mafic to intermediate tuffs intruded by an anorthosite which has associated with it quartz veining and intensive fuchsite alteration. Highest assay results include a showing of .038 oz/T Au (815 ppb). In addition 40 humus samples in the immediate vicinity showed results above the calculated mean with the highest value being 300 ppb Au. The area is also characterized by the intersection of two or three lineaments resulting in a conjugate set of structures. More prospecting and an extension of the original soil survey along strike in both directions is recommended as well as a local Max-Min II EM survey.

Another area of modest interest at this stage is a small gold silver showing. Assay results returned values of 195 ppb Au and 297 ppm Ag (9 oz/T Ag) which is associated with lead (more than 10000 ppm Pb). The showing is located within a 10m wide shear zone with prominent carbonte alteration, silicification and some chlorite alteration. Three quartz veins, parallel to the shear are included in this zone. Additional work should comprise a limited Max-Min survey over the area as well as local stripping and channel sampling. Favourable results in these may be followed up with one or two diamond drill holes.

1. INTRODUCTION

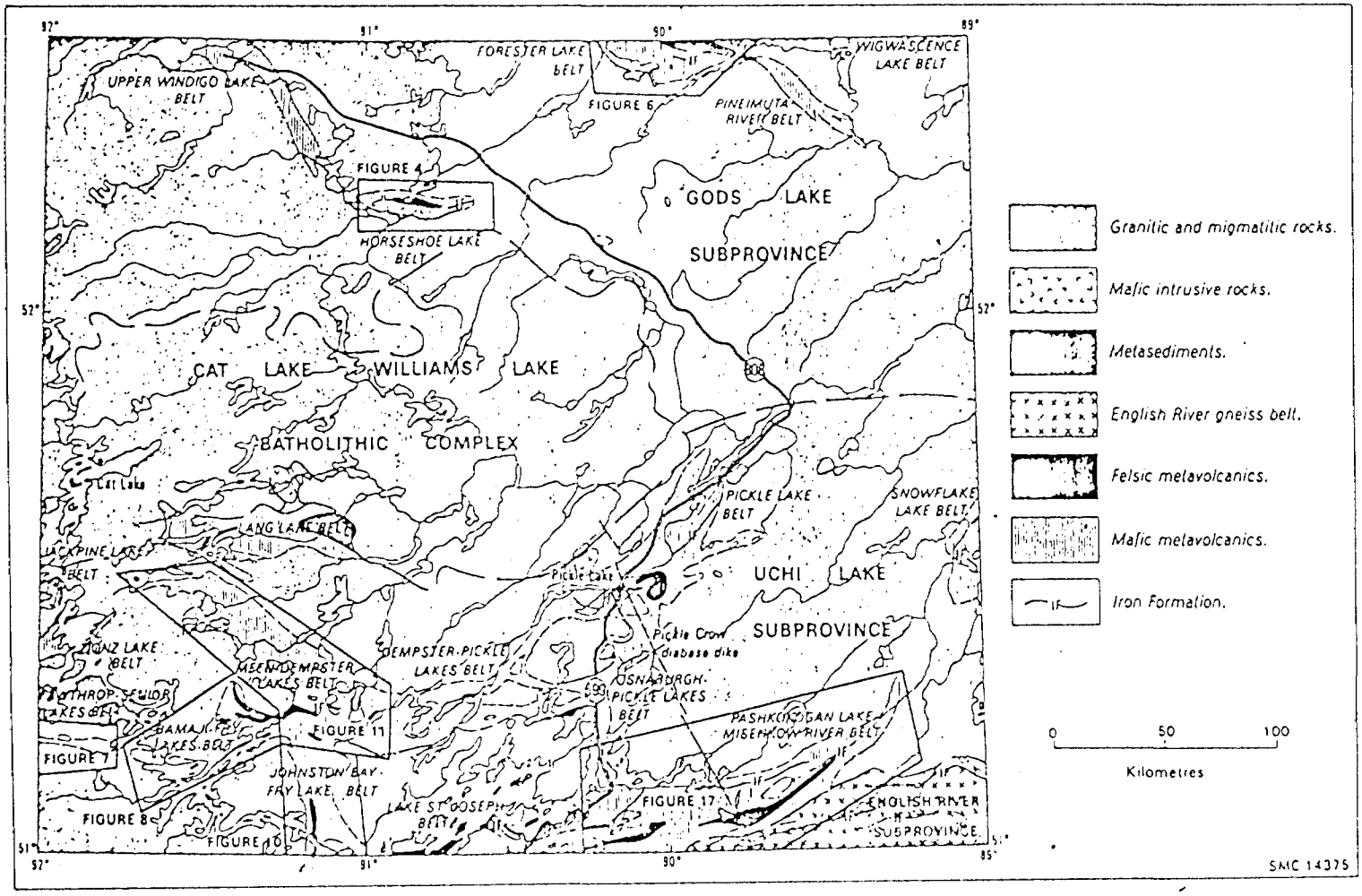
The field work was carried out between May 15, 1986 and September 28, 1986 out of a bushcamp located at the western end of Long Lake, supported by an expeditor out of Pickle Lake. The work was performed by the author, geologists Rick Bonner and Wade Kornik with geological assistants Craig Waldie, Mike Rosatelli, Neil Barnett, Eric Sundin, Tom Hilliard and Jim Laidlaw.

The roughly 370 claims comprising the property were staked by Northland and Atex respectively, in the summer of 1985 and spring of 1986, while the grid covering the property was cut by Atex during spring and early summer. The grid has east-west baselines and tielines and 200m section lines covering about 95% of the ground staked. The property joins the Utah-McVicar grid in the south described in a separate report. For land positions in the area refer to Figure 2 in this report.

The work performed by Utah Mines Ltd. during the summer included detailed geological mapping and sampling, a Max-Min horizontal EM survey over conductive areas as determined by an airborne magnetometer and EM survey flown for Utah Mines Ltd. by DIGHEM Surveys & Processing Inc. during the winter of 1985, a soil geochemical survey on the western end of the property, a small ground magnetometer survey as well as an orientation overburden drilling program in areas of high conductivity and magnetic response.

2. LOCATION, ACCESS, TOPOGRAPHY

The Long Lake property is located approximately 80 km west of the town of Pickle Lake and 120 km northeast of Sioux Lookout in northwestern Ontario (See Figure 1). The property lies in the Lang Lake Greenstone Belt in the Uchi Lake Subprovince of the Canadian Shield within NTS: Blocks 52 O/11 & 52 O/12, and can be found on claim maps G-2228 (Stoughton Lake), G-1945 (Baggy Lake) and G-2121 (McVicar Lake).



Location and regional geology

From Sage and Breaks, 1982

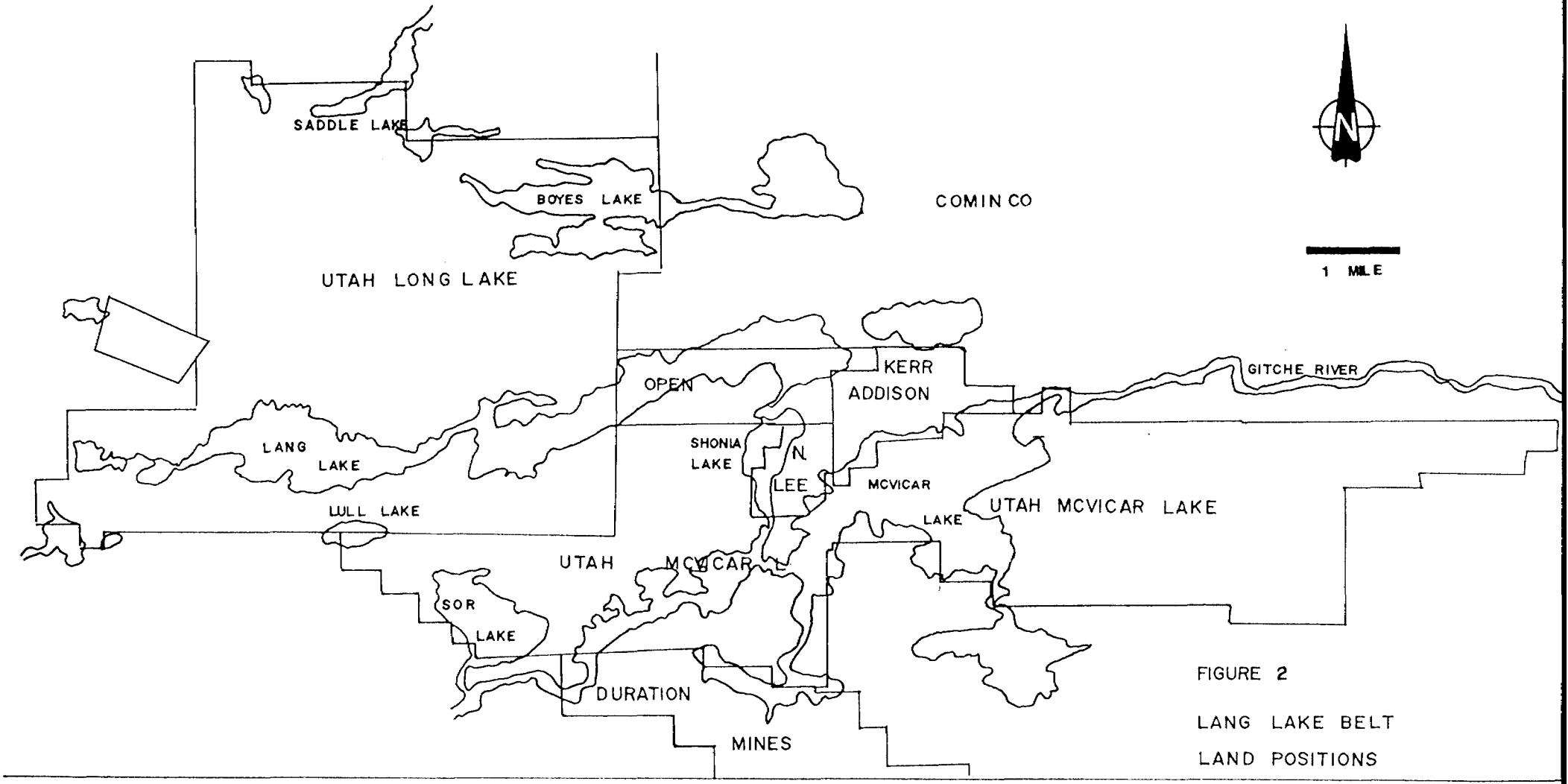


FIGURE 2

LANG LAKE BELT

LAND POSITIONS

Access to the property is exclusively by float/ski plane or helicopter out of Pickle Lake or Sioux Lookout. The property displays a generally low relief with only isolated areas of gently rolling hills and minor cliffs with a maximum relief of 30m. The vegetation is dominated by swampy muskeg in the west and northwest, grading into white and black spruce with pine in areas of higher elevation. South of Long Lake an increase of birch and poplar is evident, while the north of the property near Saddle Lake and Boyes Lake shows evidence of bush fires with deadfall and pine not older than 10-15 years. Towards the eastern border of the property the vegetation is dominated by dense conifers, mainly spruce, pine and tamarack, with isolated swampy areas.

Overburden thickness varies from more than 15m in swamps to less than one centimeter in areas of abundant outcrop. Outcrop exposure varies from nil in the swampy areas of the west to almost 90% in the dense coniferous areas of the east.

3. PREVIOUS WORK

The area has been worked in the past by several companies which mainly concentrated their exploration activities on iron and base metals. The potential for gold seems to have been ignored at these times since it is apparent from assessment work that no gold assays were performed or at least none were reported for assessment.

In 1929, a reconnaissance survey was completed by H.C. Laird (see O.D.M. Map 39D) in the area and mapping was done by Fenwick in 1969 and 1970 (see O.G.S. Maps P.665 and P.581) and by Fenwick and Srivastava in 1971.

Preliminary Map P-2077, indicates that exploration work was then performed in 1960 by Castlebar Silver and Cobalt Mines Limited, who are indicated to have done some diamond drilling. A few silver showings are known in the area and no new showings seemed to have been discovered since that date.

During the late 1960's several companies are reported to have been active in the area. These include Belore Mines Ltd., Algoma Steel Corp. Ltd., Hanna Mining Co. as well as Bachawna Copper Mines Ltd. and Mextor Minerals Ltd.. All of the above are reported to have completed several stages of diamond drilling mainly for iron and base metals. Only minor amounts of ground work have been done, this being mainly ground magnetometer and electromagnetic surveys. During the early 70's ground was optioned to Bachawna Copper Mines Ltd. and Initiative Explorations Ltd. by Hanna Mining Col and diamond drilling continued with minor ground surveys in the area.

In 1977, Cominco Ltd. flew an airborne magnetometer survey over the area with apparently no subsequent staking. Prior to Utah's entry into the area the only claims were several patented claims established over a copper prospect worked by Batchawna Copper Mines Ltd. This patented ground is believed to contain a 74' drill intersection averaging 0.65% copper and a 50' section averaging 0.76% copper (O.D.M. Map P.581 1970). Utah Mines Ltd. acquired ground in the area in 1985 and 1986 as well as Cominco Ltd., who hooked onto the Utah ground to the east. No other activity besides Utah's was noticed during the summer of 1986, in this section of the belt.

4. GEOLOGY

i) General

The Long Lake property is located in the western half of the Lang Lake Greenstone Belt, which is part of the Uchi Lake Sub-province of the Canadian Shield (see Figure 1). The belt varies in thickness between 8 and 11 km. The property contains the western nose of an isoclinally folded syncline striking about N70E and plunging 40-60E (Sage and Breaks, 1982). The property is traversed by several NE-SW striking lineaments and cut by a major fault trending roughly 320°. Structurally the central part of the property is very complex with several isoclinally folded units which are again cut and separated by prominent lineaments. The major rock types of the belt are mafic metavolcanics with

minor amounts of intermediate and felsic metavolcanics. Thin units of metasediments are present in the central part of the property which thicken near the western border. These sedimentary units contain bands of iron formation of varying composition and thickness. The metavolcanic and sedimentary package continues to the east off the property while it is surrounded to the north, west and southwest by large stocks and plutons of felsic intrusive bodies. All rocks on the property are Archean in age.

ii) Mafic Metavolcanics

The mafic metavolcanics comprise the majority of the exposed outcrop on the property. They are found mainly north of the Long Lake Narrows between Long Lake and Boyes Lake and on the shore of Boyes Lake. A separate package of mafic volcanics can be found in the northwest of the property near Saddle Lake.

The mafic volcanics are seen to occur as massive and foliated flows, coarse grained flows, megacrystic flows, tuffs and lapilli tuffs, pillow lavas and amphibolites. Volcanic muds associated with magnetic ironstone have also been incorporated into this category. The mafic volcanics contain some of the lesser anomalous gold showings found during the summer.

Massive and Foliated Lavas

These rocks comprise the more abundant part of the mafic package. They are seen to weather to a medium to dark green colour with the fresh surface displaying a dark green to black weathering. Depending on the amount of oxidation and sericite alteration, the colour may change to a more brownish or light greenish tint. They are exclusively very fine grained to fine grained and are relatively soft on both surfaces. Where foliated, these rocks may display a rubbly appearance depending on the foliation intensity and degree of weathering. The boundaries between these two types is gradual both within individual outcrops and between outcrop areas. Alteration in these rocks is mainly restricted to sericite and minor amounts of chlorite with

the addition of carbonate in cases of foliated lavas. The carbonatization occurs in these cases on foliation planes, as small stringers and occasionally as isolated blebs. Thin section examination shows that plagioclase may have undergone moderate to strong saussuritization characterized by the dusty appearance of the plagioclase. Chlorite appears to increase in areas of more intense foliation. Areas of intense silicification were noted in several cases north of the Narrows. It is believed that this alteration is a result of the intense folding associated with the synclinal structure in the immediate vicinity as well as the intersection of east-west trending lineaments and the large fault traversing the property in the area.

Quartz veins and veinlets, boudinaged and faulted, occur commonly in these rocks as well as tension gashes, as a result of complex and intense tectonics, filled with quartz are also common in the mafics.

Mineralization in these rocks is predominantly pyrite and is rather common, although in disseminations and minute crystals of subhedral to euhedral shapes in amounts generally less than 0.5%. Locally these concentrations increase up to 5%. Magnetite and pyrrhotite is present locally in the same amount and form as the pyrite. Several gold anomalies are located within these and the following lithology. Interestingly they are all associated with a lineament in the area north of the Narrows. These anomalies include showings of 25 ppb to 30 ppb Au (#'s 2189, 1059, 1176, 0062, 2047) and as high as 665 ppb Au (.043 oz/T Au) (# 2056), as well as anomalous base metal results (#'s 76 & 77-1820 ppm Zn, #1066-1850 ppm Zn and 500 ppm Cu, #0002-590 ppm Zn). Some of these results are quartz vein related.

Coarse Grained Flows

These flows are believed to be the coarser grained equivalent to the above rocks. They generally display the same criteria except that the grain size varies anywhere between 2mm to

7mm. The rocks are characterized by a rough, dark green with brownish weathered surface and a dark green to black fresh surface. Often individual hornblende crystals stand out prominently on the weathered surface giving this rough appearance.

These coarse grained flows interfinger with the finer grained rocks and it becomes difficult to differentiate between the two since the boundaries display a gradual change in grain size. Alteration and mineralization appears to be the same although it was noted that the magnetite content appears to increase slightly in the coarser grained variety.

Megacrystic Flows

Only a few outcrops of this variety were found on the property and they were scattered so that no stratigraphic correlation could be found.

Generally they display the same characteristics as the fine grained flows except that the outcrops contain large, up to 4 cm euhedral crystals of plagioclase set in a fine grained matrix. The orientation of these crystals is random. They appear light grey green in colour on weathered surface and medium green on the fresh surface. Reaction rims, most likely local alteration to sericite surrounds all crystals. Amounts of crystals vary from 5% to 40% in the rock.

Tuffs and Lapilli Tuffs

The pyroclastics of mafic composition were found in the western end of Long Lake and in the area between Bowen Lake and Long Lake. In most cases they are intercalated with the surrounding flows.

The rocks display a dark green, very fine grained matrix in which about 10-30% fragments could be found. These fragments displayed a light brown to whitish colour on weathered surfaces. The lapilli vary in size between 1-5mm and are oval in shape and

usually stretched in the foliation direction in degrees of 5-10:1. The composition of the lapilli is generally felsic with carbonate alteration obliterating the original composition. Alteration is mainly confined to the matrix, where it is chloritic, while carbonate alteration is usually associated with foliation planes and as coatings surrounding the fragments. Sulphide mineralization is rare to absent in these outcrops and usually does not pass 3% in local areas. Anomalous mineralization with mafic to intermediate tuffs was only found in A013. Here an assay of a lapilli tuff, sample #2235, returned 815 ppb Au (.038 oz/T Au). Local quartz veining and fuchsite alteration is present.

Pillow Lavas

Pillow lavas are fairly abundant in the area between Long Lake and Boyes Lake and some are also found west of Boyes Lake. Although often altered to some degree and structurally influenced, tops were recognizable in most cases indicating the beforementioned position of the synclinal axis between the two lakes as well as the later mentioned individual fold structures.

The outcrops display a dark green weathered surface and a dark green to black fresh surface. The pillows vary in size from 50 cm to 80 cm and are generally stretched slightly in prevalent foliation direction to a degree of about 3-5:1. Occasionally the pillows are amygdaloidal with the amygdules being composed of mainly quartz. They are oval in shape and about 2-4mm in diameter. They tend to be concentrated near the top of the pillows. Alteration is restricted to pervasive sericitization and only local weak to moderate carbonatization. Mineralization is absent in these outcrops.

Amphibolites

Amphibolites are only found in the northwest of the property in the Saddle Lake area (see geology Map 5-5). Here they are seen to exhibit a black with bluish tint weathering surface and

fresh surface. They are fine to medium grained with the amphiboles displaying a distinct mineral lineation along foliation directions. The amphiboles vary in size between 1mm and 3mm and occur predominantly as needles. The rocks are generally massive to weakly foliated.

In the Saddle Lake area alteration appears to be mainly pervasive silicification both in the massive and foliated lavas and in the amphibolites. Carbonatization is severly restricted to minor foliation planes and rarely in blebs.

Mineralization is rare in the amphibolites and if present consists of minor (less than 0.5%) pyrite with occasional pyrrhotite in disseminated form.

Volcanic Muds

The mafic metavolcanics contain in some areas magnetic ironstone of varying thickness and extent, some being only a few 10's of centimetres long and less than one centimetre thick. These ironstones of massive magnetite composition, rarely cherty are surrounded by very fine grained to aphanitic, chloritic and homogeneous material which may represent these volcanic muds. The extent or thickness of these muds varies between a few millimetres to a few centimetres and are generally incorporated into the extrusive package. The occurrences of these are random and are often away from the main magnetic structures observed on the property (see north shore of Long Lake, geology Map 3-5). These muds may represent periods of no volcanic activity, but rather the solidification of some chemical ooze which on renewed activity in the volcanic cycle has been disrupted and destroyed and only been locally preserved in contact with the older volcanic rocks. Tectonics may likely have played a major part as well.

iii) Intermediate Metavolcanics

The intermediate metavolcanics on the property are lesser in number than the mafics and are seen to be closely associated with the same. They occur to a large extent south of Long Lake both east and west of the Long Lake Narrows, near the western end of Long Lake towards Bowen Lake and in a thin belt in the central part of the property as well as a thin unit around the fold closure in contact with the felsic intrusive. A thin unit of intermediate metavolcanics is also found just north of Boyes Lake on the northern boundary of the property and west of Saddle Lake. These rocks occur as massive and foliated flows, spherulitic flows, tuffs and lapilli tuffs, and intercalated with the mafic metavolcanics.

Differentiation between these intermediate rocks and the mafic rocks was difficult. Individual outcrops display a gradual transition between the two and intercalation and interfingering made the contacts diffuse. Therefore, the contacts depicted on the geologic maps are not as definite as the lines would suggest. Only two major anomalies are associated with these rocks. Ironstones are not within this volcanic cycle.

Massive and Foliated Flows

As with the mafic flows, this variety is the most abundant of the intermediates. The flows also occur in the same manner as their mafic equivalent and other than a slightly more felsic composition, no differences have been observed. Alteration is restricted to carbonatization and low to moderate silicification, especially in areas of tectonic activity (lineaments and faults). Quartz veining is somewhat limited while the above mentioned tension gashes seem to increase in the more felsic varieties. This is especially obvious on the west shore of Star Lake, where numerous quartz filled gashes trend in the 320° direction of the major fault which traverses the area immediately to the west of these outcrops, if not partially through them.

Mineralization is moderate in most outcrops and in the form of pyrite/pyrrhotite in amounts less than 1%. Only isolated occurrences display a large degree of sulphide mineralization up to 4%. The only showing of interest is sample #1114 which assayed 175 ppb Au (see section 11.)

Tuffs and Lapilli Tuffs

These rocks occur mainly in the western end of Long Lake on the north shore towards Bowen Lake as well as on the south shore extending towards the south-central part of the property.

They are characterized by a medium to light green, often brownish weathered surface and a medium to light green fresh surface. The rocks are consistently fine grained and show low to moderate foliation in some cases very similar to bedding, especially in outcrops where a size gradation has been observed. In this context it has been suggested if the mapped tuffs in some areas are not a reworked sediment with volcanic origins and should thus be represented as sediments on the maps rather than volcanic ejectae.

The fragments in the lapilli tuffs are light brown in colour and vary in size between 1mm and 3mm. They are typically stretched in the foliation direction to the same degree as their mafic counterparts. The amount of fragments vary between 10% and 40% within individual outcrops.

Alteration is restricted to carbonatization mostly on foliation planes and as coatings on the fragments themselves. Mineralization is rare in these rocks, although a definite increase in sulphide mineralization is evident from rusty staining occasionally associated with these rocks. Specifically in the southwestern part of the property where the lineaments terminate the extension of the Long Lake Belt (see geology Map 1 of 5). Here the mineralization consists mainly of pyrite in amounts of up to 5% locally and may contain pockets of massive

sulphide mineralization (sample #1138-1141 which is a previously known goethite, pyrite and iron showing). No anomalous Au values have been obtained in this locality. Anomalous sample #2235 is in the area of intermediate tuffs within A013.

Spherulitic Flows

These rocks were only noticed in the immediate area east and west of Star Lake within the intermediate volcanics present in that area.

They weather to a medium brown, green colour often exhibiting a light grey tint. The weathered surface displays a prominent rough surface due to harder than matrix spherulites which do not weather as easily. The fresh surface is dark green to black in most cases. The rocks are mainly massive but may in some instances be weakly foliated. The matrix is fine grained to aphanitic and in most cases chlorite rich. Within this matrix these spherulites occur in oval shapes up to 6mm in diameter consisting of felsic material which under thin section comprises strongly strained and altered plagioclase with possible sericite. Thin sections also reveal a fair amount of altered and broken amphiboles, most likely hornblende, between these large spherulites and the chloritic matrix.

It appears as if the large spherulites which may have been plagioclase originally, have experienced some degree of silicification.

More detailed study may have to be done to better define these units.

Alteration besides the above is restricted to local carbonatization on fracture planes and foliation planes. Sulphide mineralization is rare to absent and if present, then as pyrite in amounts less than .5%. This occurs as fine disseminations and occasionally as subhedral crystals less than 1mm.

Felsic Metavolcanics

Felsic volcanic outcrop within a small area in the extreme southeast portion of the property comprise massive and foliated flows, tuffs and lapilli tuffs. One outcrop of tuff breccia was noted. The felsic rocks extend onto the Utah-McVicar Lake ground from this point. To date, no anomalies of interest have been found in the felsic metavolcanics.

Massive and Foliated Lava

These outcrops are the most abundant of the felsic variety. They are typically fine grained to aphanitic in places and show a light grey-white, often greenish weathering surface and a light green fresh surface. Foliation in these rocks is low to moderate in intensity. Compositionally they are almost exclusively quartz with minor amounts of potassium feldspar.

Alteration is present as a pervasive greenish tint, which also occurs as fine lamellae and stringers and could be epidote. Carbonatization is absent.

Mineralization is present in the form of pyrite in amounts generally less than .5% but has also been found in amounts up to 5% locally.

Tuffs and Lapilli Tuffs

Only three outcrops of this variety have been found in the area. They weather to a medium buff grey-green colour with fragments exhibiting a buff brown to white colour. The fresh surface is dark green grey. All rocks are fine grained, occasionally aphanitic, and are weakly foliated. Fragments are composed of subhedral to euhedral quartz and resemble a crystal tuff. The crystals/fragments are less than 5mm in size and present in amounts less than 30%.

Alteration is restricted to carbonatization in moderate amounts as stains, blebs and small stringers in foliation planes.

Sulphide mineralization is rare and occurs mainly as staining with occasional cubes of pyrite in amounts less than 0.5%.

Tuff Breccia

Outcrop number OC14450129 has been described as a lithic tuff breccia. The weathering is low in intensity with a light green-white weathered and fresh surface. Grain size varies from aphinitic to 5 cm. The outcrop is moderately to strongly foliated. Fragments are subrounded to subangular in shape and consist of quartz and possible rock fragments. No major alteration or mineralization was noted.

5. METASEDIMENTS

The metasediments, which host iron formation, are of primary economic interest. They are found to outcrop sporadically along the western and central part of the property in an arch roughly describing the fold closure indicated by enhanced magnetic maps of the area. The arch runs from the north shore of Long Lake at L01W in the western end towards the north-central part of the property where the sediments are terminated by the large fault in the area. A thin unit of metasediments also outcrops in the Saddle Lake area and two outcrops have also been noted on the south shore of Long Lake, east and west of the Long Lake Narrows.

The metasediments are comprised of wackes, siltstones and argillite and chemical sediments which include silica rich sediments or cherts, oxide facies ironstones and sulphide facies ironstones.

Wackes

The wackes on the property are characterized by a distinct rusty grey-brown weathering surface, while the fresh surface is grey, occasionally green and brown. Foliation intensity is low to moderate, in most cases obliterating the primary bedding structures, although remnants of the same are sometimes discernable. This primary structure is mainly a grain size gradation between individual bedding planes. In general, the wackes are fine grained to medium grained and

consist predominantly of quartz with occasional biotite set in a matrix of minor clay. The grains themselves are angular.

Within the wackes are commonly found small units of chemical sediments to be discussed later in this section. Strong oxidation of iron rich minerals give the wackes their characteristic weathering surface. In part this weathering may be attributed to the immediate vicinity of the iron-rich chemical sediments.

Mineralization consists mainly of pyrite with occasional pyrrhotite, as well as some local concentrations of magnetite. Collectively these sulphides and oxides do not add up to more than 2% of the rock specimen. Sphalerite was noted occasionally by odour only, but later confirmed in lithogeochemical assays.

Siltstones and Argillites

These two rock types are the rarer of the metasediments with the latter only evident in two outcrops one of which is on the south shore of Long Lake.

The siltstones have a red-grey/black weathering surface and a dark grey-black fresh surface, are fine grained and in some cases show a moderate deformation intensity. Primary structures are rarely visible, although foliation deformed individual beds as one unit in some cases. Alteration and mineralization is low to absent in these units.

The argillites are restricted in their occurrence. One outcrop is situated on the south shore of Long Lake, west of the Narrows. The rock is seen to have a grey weathered and fresh surface and is very fine grained to aphanitic. Again the deformation intensity is relatively strong resulting in a slaty cleavage. Crenulations with amplitudes of 5mm to 50 cm are not uncommon. The outcrop appears to be graphitic.

Chemical Sediments

These rocks may further be subdivided into silica rich or cherty sediments, oxide facies iron stone and sulphide facies ironstone. They are most commonly associated with the above sediments in the fold closure, but may also be in association with the mafic metavolcanic rocks. As indicated before, these units are somewhat limited in extent within the volcanics. Units of large extent have only been noted in areas of little tectonic deformation such as south of Boyes Lake, east of the Large scale fault structure. Others of the same composition are noted from the magnetics in the area, but have not been found in outcrop.

Silica Rich Sediments

These cherty units occur in two main categories, these being interbedded chert and massive magnetite, and massive magnetic chert units.

Two areas of outcrop of the former have been noted, one being just north of Long Lake on L8E and is associated with a minor gold showing (20 ppb Au) and base metal showing (1850 ppm Zn, and 900 ppm Zn, (#2040-2042), the other on L12W just north of the baseline. Both show quartz rich units in thickness up to 50 cm divided by massive magnetite in layers of no more than 1 cm in thickness. They usually have a low to nil weathering intensity and other than some minor oxidation along the edges of the magnetite beds, do not display any significant alteration. Mineralization is rare as well, except in the outcrop on L8E, where strong sulphide mineralization is located in a band adjacent to the unit and in contact with mafic to intermediate volcanics.

The massive magnetic chert units are restricted in extent and can usually be found to be associated with the wackes in which they are included. Some of these units are also found within mafic to intermediate metavolcanic sequences (#1114-175 ppb Au). Basically the magnetite content is less than 50% and more often than not, less than 5%. The exact amount is hard to determine since both the chert and

magnetite are aphanitic with crystals of magnetite being rare. Only varying degrees of magnetism is indicative of magnetite content.

Oxide Facies Ironstone

Again, two types are present, these being massive units and banded units. Both show a distinct bluish black weathering and fresh surface with no distinct alteration and no sulphide mineralization present.

Generally the massive units are coarser grained than the banded units which are aphanitic. The banded units also contain thin lamellae of jasper which in most cases appear to be disrupted and/or boudinaged, since elongated blebs of jasper are not an uncommon sight (#'s 2091, 2092). The thickness of these units varies anywhere from a few centimetres to several metres. In some cases these units are also bordered by prominent quartz veins as in the large fold closure on the west shore of Boyes Lake, where the ironstone is associated with mafic metavolcanics. Two anomalous gold showings are present in these rocks (#2034-180 ppb Au, #1063-80 ppb Au).

Sulphide Facies Ironstone

Only three significant outcrops of this kind have been found, two of which are in the sedimentary unit near Saddle Lake, the other being situated on the west side of Nose Lake (#2013) this one being the more prominent one as it was found to be auriferous and located favourably in respect to the model of exploration and other anomalous surveys in the area. This showing will be discussed in more detail in section 11).

All outcrops however show a strong weathering intensity as oxidation of the sulphides produce a very rusty and rubbly appearance. Characteristically, these ironstones are the same as the oxide facies ironstones, except that sulphides are seen to replace the oxides. Pyrite is present in these rocks up to 15% with local mineralization of chalcopyrite and possibly some pyrrhotite. Arsenopyrite has been noted in only one occasion. Generally these sulphides occur

disseminated and in crystals of subhedral shapes less than .5mm in diameter. Strong magnetism is still apparent in the rocks and locally carbonatization is present on foliation planes.

6. MAFIC INTRUSIVE ROCKS

Two main mafic intrusive rocks, although limited in extent, are found on the property, these being an anorthosite and a quartz diorite/tonalite.

A large ridge of anorthosite is located on the south shore of Long Lake with possible continuation at the western end of Long Lake trending west by northwest just north of Bowen Lake. The other mafic intrusive, being a diorite, is located on the south shore of Long Lake just east of the Narrows and is in contact with a felsic, possibly late felsic intrusive.

Anorthosite

This unit was found during reconnaissance work on an island in Long Lake at the western end in 1985. Further mapping revealed a thin ridge running roughly parallel to the main lineaments in the area extending both roughly northwest and southeast on opposite shores (geology map 1-5).

The rock is characterized by a light buff to tan weathering surface and fresh surface. Weathering of the rock is low to nil. The rock is medium to coarse grained and equigranular in texture displaying an almost exclusive plagioclase composition. Thin section reveals that the plagioclase has undergone major stresses destroying the customary twin lamellae. Sausserite alteration appears to be prevalent on the plagioclase.

One interesting and noteworthy point is that the intrusive is everywhere associated with strong alteration of a green mica, most likely fuchsite. This alteration occurs as bright apple green sheets and lamellae throughout the rock and is present in amounts varying between 25% and 45% locally. No mineralization has however been

associated with this green mica and only in cases where the mica actually turns to a darker shade has pyrite been found. The micaceous mineral in this case, however resembled more chlorite than the typical fuchsite. See section 11, on some more detail of this mica.

Sample #2035 (815 ppb Au) and highly anomalous soils have been found to be associated with this unit. Quartz veining is present in this instance as well.

Quartz Diorite (Tonalite)

This intrusive is seen to lie in contact with a possibly late felsic intrusive on the south shore of Long Lake and is strictly speaking an intermediate intrusive rock.

The weathered surface shows a medium to dark grey, black colour and appears smooth with a low weathering intensity. The fresh surface is medium to dark grey with black patches. The rock is equigranular with a medium grain size and massive.

The composition is regular with approximately 45% plagioclase, 45% hornblende amphibole and roughly 10% quartz. Minor amounts of fine, disseminated crystals of magnetite have been noticed. No sulphide mineralization has been found, although it is not uncommon to see quartz veins cutting this unit, which contain some minor amounts of sulphide mineralization (see section 11.) in the trenches on L48E/37.00S. This rock has only been found in the marginal zone of the intrusive described below. Only the quartz veins are found to be anomalous in gold in this case.

7. FELSIC INTRUSIVE ROCKS

There are four types of felsic intrusive rocks on the property of which one may be a late stage intrusive. These are a feldspar porphyry which terminates the Long Lake belt on its western margin, a granodiorite/quartz monzonite in the southwestern corner and a possible late stage syenodiorite on the south shore of Long Lake east of

the Narrows. A few felsic dykes have also been mapped on the property.

Feldspar Porphyry

This intrusive borders the intermediate, mafic volcanic and sedimentary rocks on the western edge of the property.

The rock is characterized by a light brown grey, often buff weathering surface displaying a typical porphyritic texture with the porphroblasts comprised of plagioclase feldspar making up about 20-40% of the rock. The matrix is fine grained, dominated by quartz and feldspar with minor amounts of biotite. Occasionally the porphroblasts are also composed of quartz. Both vary in size between .5 cm and may grow as large as 1.00 am. They are subhedral in shape and show little alteration.

Alteration is limited to low carbonatization on localized foliation planes, joints and cracks. Otherwise the rock appears massive.

Mineralization is restricted to sulphides in amounts less than 1%, but seems to increase near contact areas with the rocks of the volcanic belt. Pyrite occurs in microveinlets in amounts less than 1% increasing to locally 5% when it mineralizes in disseminated form. Sample #2008 (95 ppb Au) is found in this unit, although the rock is mapped to be of a more granitic composition and not porphyritic. Chalcopyrite staining was noted in only one occasion.

Granodiorite/Quartz Monzonite

Outcrops of this variety are located in the southwest corner of the property in immediate vicinity of the large lineaments in that section of the property.

The rocks show a buff-grey-pink weathering surface and a buff-pink-brown fresh surface. The rocks are typically medium to coarse grained and massive to weakly foliated. Gneissosity is well developed in bands of felsic material of light colour and dark

coloured biotite. The gneissosity trends parallel to the regional lineaments in the area (see geology Map 1-5). The average composition encountered consists of 70% K-feldspar with an average size of about 4-6mm, 20% quartz of 3mm size and 10% biotite of an average size of 2-5mm. All minerals are subhedral.

Alteration is limited to weak carbonatization in fractures and some coatings on mineral grains. The intrusive is seen to often display quartz veining which in rare cases does display prominent sulphide mineralization. The veins vary in size between 2 cm and 10 cm. Samples #1165-90 ppb Au and #1168-25 ppb Au are of this type.

Syenodiorite

An intrusive body outcrops on the south shore east of the Long Lake Narrows. The unit was mapped as a syenodiorite, but may upon closer examination turn out to be more of a monzonite. The rocks display a medium brown to buff pink weathering surface which shows a low degree of weathering intensity. The fresh surface is typically composed of a light, grey-pink-green colour. The rock is homogenously medium grained with an average mineral composition of 50% sodic feldspar, up to 20% potassium feldspar, 25% hornblende amphibole and low (less than 5%) or no quartz. The grains vary in size from up to 6mm for the hornblende to 3mm for the quartz. All grains are subhedral to sometimes euhedral in shape. A pervasive, sometimes as thin lamellae or veinlets, light green, very fine grained to aphanitic alteration is present in these rocks. The alteration is present in amounts up to 5% and is most likely epidote.

Mineralization is limited to pyrite in amounts of less than 1% in disseminated form and small, less than .5mm subhedral cubes. Magnetite has been noted in a few specimen in crystal forms not exceeding .5mm in size.

The intrusive unit contains two gold showings (geology Map 2-5) of which one is as high as .047 oz/T Au (#0134) and #1207 with 35 ppb Au. These samples came from a quartz vein.

Felsic Dykes

Several felsic dykes have been noted. They are predominantly composed of feldspar and quartz in varying amounts. The most prominent of these dykes is located on the north shore of Long Lake at L52E/13.70S. The location was found to be a gold-silver-lead showing (190 ppb Au, 297 ppm Ag and more than 10000 ppm Pb). See section 11, for a detailed description. Smaller dykes are also located near the intrusive-metavolcanic contact near the southwestern part of the property and in isolated occurrences in the metavolcanics of the Saddle Lake area.

8. STRUCTURE

The tectonic structures of the Long Lake Belt in the area covered by the staked ground turned out to be very complex and it is not worthwhile, if possible at all, to explain all happenings or to reconstruct the history of deformation at this stage. Limited outcrop in the areas of interest restricts the interpretation, and enhanced magnetic maps as well as results from the ground electromagnetic surveys were used to arrive at a somewhat limited explanation of structure on the property. Later diamond drilling may shed further light on the problem.

For the above reasons, the interpretations given here are quite obviously open for discussion.

The regional foliation is roughly east-west on the property with steep dips both to the north and south. This foliation has however been subjected to several deformational stresses resulting in foliation patterns which mimic these stresses and therefore show a rather confusing picture across the property. Four large regional structures influence the area of the property, these being an isoclinally folded syncline with its major axis trending roughly N70E and plunging 40-60 degrees east, a fault trending 320° having a dextral displacement and several lineaments in the southwest corner and a large fold closure on the west-central part of the property.

The whole package seems to have experienced compressive stresses, since the geology of the northern part of the property appears rather undisturbed, while the central part shows complex S-folding, tight isoclinal folding as well as Z-folding. The southern part again appears to have been spared by these stresses.

Other structures include small lineaments, mostly taken from magnetic maps, which trend roughly east by northeast.

The synclinal structure on the property is well documented in the exposed rocks with pillow structures in the mafic volcanics giving the axis a position between Boyes Lake and Long Lake. Although pillows were also found which do not support this finding, these are most likely a result of subsequent tectonics, the axis was interpreted to trend N70E and plunging 40-60° east. The synclinal structure itself is folded repeatedly, especially near the western boundary producing the different pillow orientations, as well as part of the large fold closure in the area. The effect of the syncline is limited to the area north of Long Lake.

Three large lineaments, interpreted from enhanced magnetic maps, are located in the southwest corner of the property. They trend west by northwest running from north of Bowen Lake towards Lull Lake. Foliation and contacts between rock units are parallel to these with steep dips from 85° north to 85° south. Gneissosity in the felsic intrusive follows these directions and may indicate partial remelting of the rocks during time of strong tectonic activity. On a regional scale (see Figure 1) it is suggested that it is at this point that the Long Lake Belt was separated from the Mean-Dempster Belt to the south by strike slip movement of major faults as well as by a dilational component in the northeast-southwest direction. Evidence of this in outcrop is rare, but may be found in possible slickensided surfaces on mica sheets located south of Long Lake L12W/28.50S. A local ground magnetometer survey may support this theory (see section 10).

The large regional fold closure in the west-central part of the property contains the area of most interest at this stage, indicating several anomalous Au showings, as well as some interesting base metal assays. It should be kept in mind that the dominant lithology of this fold is of sedimentary origin. The regional fold contains within it folds of all sizes as small as 1 cm in amplitude. The regional fold assumes the shape of an isoclinal fold with a maximum amplitude of about 3.5 km with the axis trending roughly N70E and is the axis of the syncline mentioned above. The southern limb of the fold appears to be terminated by a lineament near L16W/12.00S, just south of Nose Lake. The northern limb is in turn terminated by the large fault, traversing the property at 320°, near L18E/17.00N. The nose of the fold is located roughly at 21W/4.00S. Within this regional fold are numerous smaller folds which mimic the large regional structure no matter how small the individual structures are. The axes of all these trend roughly in the same direction as the one mentioned earlier and plunge either east or west, depending on the actual direction of the closure. It was noted that about half of these folds have a closure which is opposite to the main closure. This can be deduced from the fact that the small scale folds on the property did exhibit this folding and from interpretation of the enhanced magnetic map. It leads to the conclusion that the rocks have been tightly isoclinally folded several times, producing S-shaped and in some instances Z-shaped folds. The compressional stresses applied at a later stage may give the appearance of tight folding.

Several lineaments interpreted from the magnetic maps appear to have cut and displaced some limbs and fold noses of the smaller structures, as they have terminated the regional structure. These lineaments are most likely faults, although no actual signature was found in outcrop other than irregular contacts between the felsic intrusive and the intermediate metavolcanics and metasediments near the fold closure as well as tension gashes in the metavolcanics and disrupted and disoriented ironstones. The lineaments have in some cases associated with them several anomalous Au showings in mafic

metavolcanics especially in the area immediately north of the Long Lake Narrows to be discussed in section 11.

The youngest or latest structural feature in the area is the dextral strike slip fault running from Saddle Lake in the north past the west side of Star Lake across Long Lake in the direction of McVicar Lake. The fault itself does not show in outcrop as a distinct shear zone, but does only sporadically indicate it's presence by joints and cracks, quartz filled tension gashes and offsets in geologic units. Locally the regional foliation direction bends into the plane of the fault. The fault has a right-lateral displacement of approximately 700m maximum in the north near Saddle Lake decreasing to less than 100m in the south near Long Lake. This may be explained by a dip component in the movement along the fault (R. Thomas, pers. comm.), or rake. The same may also explain the presence of the only fold closure east of the fault. The fold is located on the west side of Boyes Lake and closes to the east. Rough comparison of the size, shape and extent of the structure makes it look very similar to the fold closure just across the fault to the northwest. The actual area the fault influenced may be as wide as 1000m, since minor faulting in the same trend and displacement was noted this distance away on either side of the fault.

9. GEOCHEMISTRY

Two geochemical surveys were undertaken, these being a blanket soil survey and an overburden drill (Wacker) orientation survey. Outlines of both are depicted on compilation Maps 1, 2, and 5. The purpose of both was to try and help evaluate the economic potential of the areas showing no or limited outcrop exposure, especially over the target area in the west-central part of the property. The area was selected using mainly geophysical criteria such as magnetics and electromagnetics as determined by the airborne survey and preliminary ground work.

Soil Survey

Two areas on the property were surveyed. The smaller of the two was located on the south shore of Long Lake in the area of interest 3 (A013), the other on the north shore over the large fold closure (A011 & A012).

In the south sample, intervals were 25m on a line spacing of 50m on a flagged grid superimposed on the cut grid, while on the northern section sample, intervals were 50m on a line spacing of 200m. In both instances an effort was made to collect both the A00 and the B_1 horizon, but due to the vegetation coverage, mainly swampy muskeg except rare drumlinoids, this effort was often futile. Sample depth ranged from 1cm on these ridges to 110 cm in the swampy localities. In total about 1500 samples were collected with 97% of them being of the A00 variety.

The A00 samples consisted mainly of 80% humus with 20% of clay and silt in varying amounts, while the B_1 samples typically contained a majority of sand and silt with minor amounts of clay. The characteristic oxidized B_1 soil horizon was rarely found. Soils assayed to this date include all samples from the southern area (40) and soils from an area of 1 km*km centered around the simple statistics including all soils, A00 and B_1 separated, placed the anomalous boundary at more than 20 ppb Au for A00 and more than 35 ppb Au for the B_1 samples. The statistical mean was determined to be 15 ppb and 6 ppb, respectively.

The results turned out to be encouraging, especially for the southern survey area.

Here all samples taken were assayed to be above the calculated mean with two highly anomalous results, #2344 giving 300 ppb Au and #2354 giving 135 ppb Au. Two other samples returned values of 70 ppb and 65 ppb Au. All results in this area are derived from A00 samples.

The northern survey did also reveal promising results. Here #1016 returned an assay result of more than 1000 ppb Au (.026 oz/T). This sample came from a B_1 sample and most likely represents outwash from the drumlinoid ridge just south of the sample. Number 1069 gave a result of 155 ppb Au and is located on the baseline at 11.50W, just south of Nose Lake. The sample was an A00 sample. Seven other samples from the area returned 40 ppb Au and 30 ppb Au, of which two are located south of Nose Lake and the rest west of the lake in the vicinity of the .026 oz/T Au showing (#2013).

For exact locations, sample numbers and assay results please refer to soil geochem Maps 1 to 3.

Considering these results, it is recommended that the remaining soils of the northern area be assayed as well, especially those which are found to lie over the sedimentary rocks of the fold closure and beyond (A011 and A012).

Overburden Drill Survey

A short orientation survey using the Wacker percussion drill was performed to determine the usefulness of this survey in the area. The survey coverage is outlined on compilation Maps 1 and 5. The sample interval was 50m with a 200m line spacing over the electromagnetic anomalies north of the baseline, but was tightened around the area of the lithogeochem Au showing west of Nose Lake to 25m.

Sample depths varied from .50m on the sand ridges to 11.40m in the swampy areas north of the baseline. The sample consisted mainly of clay and silt with minor, varying amounts of sand and rare gravel. In total 165 samples were collected which were all assayed for Au only.

Simple statistics were again used to determine the anomalous level to lie just above 9 ppb Au with the results having a calculated mean of 3 ppb Au. Both these results lie below the detection limit

and for plotting purposes 20 ppb Au was used as the lower limit for anomalous samples.

All in all, four assays turned out to be anomalous, two of which are located in A012, #0072 and #0080 assayed 20 ppb Au, and two in A011 with #0162 giving 20 ppb Au and #0178 giving 95 ppb Au. Clearly the latter is of more interest, especially since it is located directly in the area of most interest.

However, due to the generally poor results, the effort and manpower required to perform the survey, a follow-up of this survey is not recommended.

For sample locations and assay results refer to overburden drill Maps 1 and 2.

10. GEOPHYSICS

A ground Max-Min II electromagnetic horizontal loop survey was done over the conductive sections as outlined by the DIGHEM airborne survey. This classified the type of conductor, as well as tied the conductors into the grid parameters.

Selected areas were surveyed at a line spacing of 200m with an original coil separation of 100m. The spacing was reduced to 50m over the two large fold closures on the property to arrive at a better resolution of the conductors in these important areas. In general the survey results support the interpreted geology as well as the interpretation derived from the enhanced magnetic maps. A short explanation of the groupings devised by DIGHEM is given here. For detail discussion the reader may refer to the interpretation given by P. Diorio of Utah Mines Ltd. in a separate report.

A small ground magnetometer survey was performed south of Long Lake in A013.

Max-Min II EM Survey

Conductor Group 1-1: This group is sedimentary related and contains the northern limb of the large fold in the west-central part of the property. It clearly defines the contacts between the metasedimentary rocks and the felsic porphyry as well as repeated tight folding. The conductors indicate mostly iron formation with possibly minor sections of sulphide mineralization. It should be noted that the conductive unit located at L12E/16.00N was not surveyed due to the fact that the anomaly skims the north shore of the lake. Since the strength is not known, the area may be done during the winter.

Conductor Group 1-2: This unit appears as a long linear feature and may thus represent conductive horizons within the lineament present in the area. Other than on its western end, the mineralization appears to be consisting of magnetite, rather than sulphides.

Conductor Group 1-3: DIGHEM interprets this group to belong to a possibly folded iron formation. The conductors appear to be very weak and no evidence was found by geologic mapping that an iron formation is present in the area. Outcrop exposure in the area is, however, limited and the rocks present are interpreted to be intermediate metavolcanics.

Conductor Group 1-4: The folded and faulted iron formation, within mafic metavolcanics, is well represented in outcrop. Present in the immediate vicinity is also sulphide mineralization within quartz veins in contact with the iron formations as well as lesser amounts in the mafic metavolcanics. Concentrated sampling did not give encouraging results and the favourable conductors may be explained by a unit of graphite, somewhat massive in the area. Evidence of this unit was located in the trench on L36E/8.00N.

Conductor Group 1-5: This group contains the area of most interest, generated by favourable lithogeochem and geochem results as well as rather strong EM conductors, all associated with the fold nose and contracts as well as lineaments. Some of the strongest anomalies are located in this group and it appears as if they are caused by sulphidized iron formations. They are located somewhat north of the actual nose on L18W and L16W on or just south of the baseline. The shape of the anomalies in the area may suggest that a nose is located within a nose at this point and that the area is traversed by an east-west fault. Some of the anomalies may belong to Group 1-2.

Conductor Group 1-6: This long and linear unit was determined to be iron formations just south of Boyes Lake as indicated in outcrop #2091 on L32 E/3.00N. No sulphide mineralization was noted or is indicated in the geophysical results.

Conductor Group 1-7: This group was not surveyed during the ground work. From geological information gathered, it may be concluded that the conductors are caused by isolated occurrences of ironstone in the metavolcanics. The north shore of Long Lake displays a fair number of metasedimentary units which incorporate magnetic ironstone.

Several anomalous sections not grouped by DIGHEM should also be noted:

The long linear conductors in the north part of the property near Saddle Lake displayed a response typical of iron formations. This is certainly true for the unit east of the major fault, trending east-west and running through Boyes Lake.

The unit west of the fault may be an extension, both east and west, of the massive pyrrhotite/pyrite/sphalerite showing which is trenched just west of Saddle Lake. No anomalous assay results, both in 1985 and 1986, were obtained which makes the area less attractive at this stage.

One area of more interest is the area south of Group 1-3. Interesting anomalies have been located between L10E and L20E, trending roughly east-west at the baseline. These are of favourable strength and composition and may represent the continuation of the fault which has already been located west of here near the fold closure. Again no evidence of geological nature was noted due to an absence of rock exposure.

One isolated linear anomaly at the western end of Long Lake was surveyed. The anomaly is believed to be caused by a combination of iron formation in the creek joining Bowen Lake and Long Lake as well as some massive pyrite/pyrrhotite mineralization on the point extending into Long Lake. No anomalous assays were found in the sulphide units, while the localized iron formation, with up to 3% pyrite and possibly minor chalcopyrite assayed 185 ppb Au.

One new conductor has been located just south of Nose Lake at 12W/13.00S. Unfortunately the survey was not extended this far south on the adjacent lines and may have to be done at a later stage to determine the strike length of the anomaly. The anomaly occurs in an area of metasedimentary rocks and may thus be of some interest, especially since the geochem survey picked up some high assay results in the immediate vicinity.

Magnetometer Survey

The survey was undertaken to determine the possible dislocation of the green mica zone, associated with the anorthosite and the #2035 Au showing away from the large cliff in the area. Line separation and survey point locations were the same as for the soil survey in the area. For results refer to Appendix I. The results were not as helpful as hoped, but may be interpreted the following way:

The magnetic low at the bottom of the map represents the edge of the cliff face. Iron formation is located within this lithology. The main structure trends 85° with one offset at 117° producing a conjugate intersection. A second major structure, likely representing one

of the major lineaments in the area, runs at 110° just north of the latter. Thus a possible continuation of the green mica zone may be found at a shallow angle towards the southeast of the original showing. Although the area is highly anomalous in its soils, it is questionable whether a more extensive magnetometer survey would be of any help in interpretation.

11. AREAS OF ECONOMIC INTEREST

Important gold showings have been found in three areas of which area of interest 1 (AOI1) and 2 (AOI2) display the same environment, while AOI3 is different entirely. The showings will be described in decreasing order of importance starting with AOI1 and its anomalies. Anomalies which are isolated and likely represent lesser possibility of mineralization extent, are added in the last part of this section.

(i) AOI1

For reference refer to geology map 1-5, 2-5 and compilation map 1-5, 2-5.

Outcrop 2013, assayed more than 1000 ppb Au (.038 oz/T). The unit was mapped as sulphide facies ironstone located partially within intermediate volcanic flows. The sample station showed a moderate to strong weathering intensity with a light to dark brown colour on weathered surface. The fresh surface is dark grey to black with lamellae and streaks of yellowish, probably indicating alteration. The unit is fine grained to aphanitic and shows massive magnetite beds which do not exceed 1.00m in width. It is at this point that the unit is in contact with what appears to be intermediate metavolcanics. Foliation and/or bedding trends on the outcrop between 20-50° with dips ranging from 70° east to vertical. Visible mineralization is limited to 5% disseminated pyrite and 3% disseminated pyrrhotite, both of which are found within the ironstone and appear to be replacing the magnetite since the degree of magnetism was noted to vary locally. Arsenopyrite was not observed but was possibly indicated by strong H2S smell when hitting the sample with the hammer.

Alteration is visible as rusty staining and as yellowish lamellae and sheets on individual foliation planes. No carbonate alteration was found.

The ironstone is in contact with intermediate metavolcanics (#2230), the contact being somewhat erratic, and felsic porphyritic units are not far away and are most likely in contact with the above package as well, although this was not observed in outcrop.

Resampling of the ironstone was undertaken, as well as two samples of the host rock. The above assay result was not repeated, which may indicate a sporadic sulphide replacement of the ironstone with sporadic gold mineralization. The table below lists the remaining assay results in more detail.

TABLE 1

SHOWING #2013

ASSAY RESULTS

Sample Number	Au (ppb)	As (ppm)	Cu (ppm)	Zn (ppm)
2013	>1000	1	120	62
2228	15	1	38	16
2229	110	8	53	48
2230	20	2	41	44
2231	35	1	87	16

OUTCROP 2006

This outcrop was mapped as an intermediate massive volcanic flow. The outcrop is located roughly 200m to the west of the above sample location.

Strong weathering intensity is apparent, indicating the possibility that this unit may be a metasediment in origin due to a small

resemblance to the weathering features of those rocks. The rock weathers to a green-grey with brown while the fresh surface is medium grey-green. The rock is fine grained and massive.

Mineralization is restricted to 2% disseminated pyrite, 1% disseminated pyrrhotite and less than 1% magnetite in individual grains. No resampling of this outcrop was undertaken. The assay returned the following values: 60 ppb Au, 1 ppm As, 13 ppm Cu and 44 ppm Zn.

OUTCROP 2028 & 2033

Both sample locations are from the same outcrop taken from close proximity of another. Number 2028 is a minor gold showing, while #2033 is a copper and zinc anomaly in bands of ironstone located within the metasedimentary host rock. Assay results are as follows:

TABLE 2

SHOWING 2028 & 2033
ASSAY RESULTS

Sample Number	Au (ppb)	As (ppm)	Cu (ppm)	Zn (ppm)
2028	25	9	39	52
2033	20	4	1820	1600

The metasediments are classified as wackes of weak weathering intensity. The weathered surface displayed a medium to dark green-grey-brown colour with the fresh surface being more or less grey-black. The rocks are fine to medium grained, trending 20° with a dip of 70° east. Alteration is present as minor iron staining. Mineralization consists of less than .5% pyrrhotite in disseminated form and possible Fe enrichment pervasively throughout the rock indicated by the weathering colour. The outcrop incorporated cherty ironstone of

dark red-brown colour from which sample #2033 was taken. No sulphide mineralization was noted in this sample. The iron stone occurred as isolated beds not exceeding 3 cm in width and of short strike length (less than 1.50m). The orientation of the beds are at an angle of about 40° thus not in accordance with the regional trend of the metasediments indicating localized tectonic disturbance in the area. Although six samples were taken over the whole outcrop, the above two are the only ones which turned out to be anomalous.

OUTCROP 2008

This is the only other rock exposure anomalous in AOI1. The rock is mapped as a granite containing 50% quartz, 30% plagioclase and 20% hornblende amphibole. The rock is massive and medium grained with a light grey weathering surface and a medium grey fresh surface. Alteration is virtually absent and mineralization consists of 2% pyrite in disseminated form and in minor (less than .5mm) small cubes. Pyrrhotite and magnetite was noted in amounts less than .5% in small crystals. The above values are a slight increase to the norm in these rocks and is likely contact related in the area. Assay results are as follows: 95 ppb Au, 2 ppm As, 90 ppm Cu and 18 ppm Zn.

The anomalous rocks in AOI1 can be summarized in the following manner. The anomalies occur in three different environments, appear to be contact related i.e. in close proximity of the felsic-metavolcanic-metasedimentary contact and occur close to or on the interpreted magnetic structures describing the fold closure. Sample numbers 2028 and 2033, are actually located within one of the parasitic folds of the regional structure. Lineaments, likely representing faults are not far away.

Although the Em signature is weak compared to AOI2, the area is still of a high priority target, even if the lithologies appear to be disrupted and therefore of a short extent.

(ii) AOI2

The area is located immediately to the northwest of AOI1 and represents the continuation of the metasedimentary horizon of the large regional fold closure. Five anomalous samples are found within this section.

For locations refer to geology map 5-5, for assay results refer to Table 3.

OUTCROPS 1042 & 1043

Both samples are from ironstones hosted by wackes. The ironstones may be classified as being of the silica rich (cherty) variety, although local sulphidization has been noted. The wackes are weakly weathered while the ironstone displays a moderate weathering intensity. Here the weathering surface is red/brown with a grey/black fresh surface. The rock is typically fine grained to aphanitic with a strike trending between 30-50° dipping between 65-80° southeast. Some slaty horizons of argillite have been noted. The silica ironstone is banded and displays alternating layers of chert and massive magnetite. The bands do not exceed 3-5 cm in width and again appear to be local in extent. Alteration is limited to moderate oxidation of the Fe-rich horizons. Separate bands of massive pyrite are present and may represent the above mentioned sulphidization of the magnetite. The amounts vary between 20% to 40% pyrite. For assay results see Table 3.

OUTCROP 1045

The anomalous sample comes from a quartz vein found within mafic to intermediate metavolcanics with some possible mineralization of amphibole. The rock has a weak weathering intensity displaying a green/gray surface and a green fresh surface. The rock is fine to medium grained. The rock is foliated in the 68° direction with a dip

of 45° east. Local crenulations are present with the hinge(s) having an orientation of 180° plunging 50° west.

The anomalous quartz vein trends 170° with a dip of 68° west. Sulphides have not been noted in the vein. See Table 3 for assay results.

OUTCROPS 1046 & 2045

Although these outcrops are fairly wide apart they are described together here, since they occur on the same lineament and in the same environment. Both of these are a zinc anomaly.

The outcrops are described to be close to or on the metasedimentary/metavolcanic contact showing both mafic metavolcanics and silica-rich ironstones. Number 1046, contains siltstones with intercalations of mafic volcanics with a foliation of 80° dipping 80° south. Bedding of the ironstone in #2045 is 70° with a dip of 85° south while foliation is indicated to be trending at 50° with a dip of 80° southeast. This reading reflecting the local lineament.

Both outcrops display carbonatization along foliation planes in amounts less than 1% with #2045 also giving the possibility of small degrees of local epidote alteration.

No sulphides were noticed in either of the two outcrops.

TABLE 3

ASSAY RESULTS
IN AOI2

Sample Number	Au (ppb)	As (ppm)	Cu (ppm)	Zn (ppm)
1042	30	3	32	50
1043	85	1	62	70
1045	40	N/A	N/A	N/A
1046	5	8	120	1050
2045	10	<1	124	4300

In summary, the environment in AOI2 is the same as AOI1, both representing anomalous results in an area of favourable geology, structure and electromagnetic results. The actual fold nose appears to be of lesser interest according to the geophysical results, but mineralization is present, all be it in localized spots with no obvious strike length. This is likely due to the fact that tectonics have disrupted the area; faults, lineaments and folds are intersecting in a complex manner especially in AOI1. The absence of exposure also may hide the explanation of longer strike extensions, these being indicated by the geochemical results which may represent the indicators of the missing links between the individual anomalies. An irregular contact with the felsic intrusive, isolated pods of all lithologies have been located to be in all kinds of scenarios, further complicates the exact location of favourable mineralization.

The area should definitely be further explored and it appears as if diamond drilling may be the only way to do this. Geophysical surveys such as IP may be of limited use due to the presence of the ironstone which will likely mask any anomalies resulting in a picture which may be further confused rather than explanatory. When selecting drill targets, the EM performed on the ground seems to be the most

helpful criteria with geology, lithogeochemistry and geochemical surveys indicating favourable mineralization in favourable situations.

(iii) AOI3

The area is located on the south shore of Long Lake between L14W and L12W at 27.50S. Strong lineaments, most likely faults traverse the area in a roughly west by northwest direction. For detail location refer to geology map and compilation Map 1-5.

The following assay results were obtained:

TABLE 4

ASSAY RESULTS
FOR AOI3

Sample Number	Au (ppb)-oz/T	As (ppm)	Cu (ppm)	Zn (ppm)
2105	5	N/A	N/A	N/A
2106	5	N/A	N/A	N/A
2107	5	3	23	15
2232	25	N/A	N/A	N/A
2233	5	N/A	N/A	N/A
2234	5	N/A	N/A	N/A
2235	815/.038	N/A	N/A	N/A
3000	5	14	365	20

* The gold assays above are mostly from quartz veins in the outcrop.

The rocks present are mafic to intermediate volcanic flows and tuffs, with intercalation between the mafic and intermediate rocks. These are intruded by an anorthosite, associated with intense fuchsite alteration and moderate quartz veining.

The mafic to intermediate tuffs are characterized by a low to moderate weathering intensity with a medium green weathered surface and a dark green fresh surface. Subangular fragments, less than 1mm in size, of felsic composition with a light brown surface, are set in a fine grained, dark green chloritic matrix. The amount of fragments varies between 15% to 30%. The rocks strike 110° and dip vertically. Alteration is restricted to moderate carbonatization in foliation planes and pervasively throughout the rock. Quartz veining is present in amounts less than 20%, the veins varying in size between 3 cm and 20 cm, exhibiting a pinch and swell structure and show a trend of 60° with vertical dip, thus cutting the host lithology at a shallow angle. Pyrite mineralization is rare and has only been noted in crystals of less than 1mm in size in amounts of up to 5% in sample #3000, which came from a float apparently not far removed, likely from the cliff face itself.

The flows of mafic to intermediate composition are intercalated in the area with the tuffs and are displaying the characteristics observed in other parts of the property. A slight increase of carbonatization was noted along foliation planes with local mineralization of disseminated pyrite in amounts less than .5% and possibly some chalcopyrite. Magnetite is indicated with a slight magnetism of the rocks.

The above rocks are cut by an anorthosite in units not exceeding 3.00m in width and generally less than that. The rock is characterized by a moderate weathering intensity of light buff/tan colour and a fresh surface of light grey/buff colour. The rock is uniformally medium grained. The intrusion strikes at 110° and dips vertically. Incorporated within and along its contacts with the surrounding rocks intense fuchsite alteration in sheets varying in thickness between .5 cm to 15 cm is located. The anorthosite is pervasively carbonatized, but does not display any sulphide mineralization.

The area became of interest with the assay results of #2235 which is located at the eastern end of the outcrop from a small quartz vein

within intermediate tuffs and by the highly anomalous results of the Ao humus taken in the area.

(iv) FELSIC DYKE

This locality deserves some special mention due to some good Ag assays within favourable geology of quartz veins within a shear zone and felsic dyke. The showing is located on L52E/-13.60S at the shore of Long Lake and can only be seen at low water levels.

A 10m wide shear zone with carbonatization along shear planes and silicification in host rocks is found within mafic to intermediate volcanic flows. Several small quartz veins not exceeding 5 cm in width are parallel to the shear and exhibit sulphide mineralization in amounts of up to 10% locally. The trend of the shear is 320° dipping vertical. Chlorite alteration is moderate in the foliation planes. Assay results are found in Table 5.

Bordering this shear to the west is a felsic dyke composed mainly of quartz and feldspar in equal amounts. The rock weathers to a light brown due to extensive carbonate, possibly ankerite alteration. The dyke is uniformly medium grained. The orientation of the dyke is roughly 50/80SE. Two intersecting sets of quartz stringers are present with the stringers not exceeding 5 cm in thickness. S_1 is at 320° with S2, being at 45°. The amount of quartz veining overall in the dyke is 20%. Pyrite is only present in amounts less than 2% locally in disseminated form. Table 5 summarizes the assay results.

TABLE 5

ASSAY RESULTS

FELSIC DYKE

Sample NO.	Lithology	Au (ppb)	Ag (ppm)	As (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
2209	Mafic Vol.	20	-	5	122	58	-
2210	Quartz V.	5	<.2	-	16	-	2
2211	Quartz V.	190	297	-	65	-	>10000
2212	Quartz V.	5	1.2	-	5	-	48
2213	Mafic Vol.	10	-	9	83	86	-
2214	Felsic D.	10	-	24	10	6	-
2215	Felsic D.	10	-	8	35	14	-
2216	Felsic D.	5	-	-	-	-	

Due to the location of the dyke and the shear it is hard to follow the outcrop of both the shear and the dyke. It may be worthwhile to do a small local Max-Min survey over the area in the winter, both over the lake and the swamp to the north of the felsic dyke. Encouraging results may be then drilled by one hole at a later stage.

(v) OTHER AREAS OF ANOMALOUS GOLD MINERALIZATION

These anomalies are isolated occurrences which at this point appear to be of limited interest. They occur in mafic volcanic flows, isolated local ironstones and in quartz veins situated within felsic intrusive rocks surrounding the metavolcanic belt.

Mafic Volcanics

An area immediately north of the Long Lake Narrows, geology and compilation Map 2-5, displays seven anomalies within fine to coarse grained mafic volcanic flows. The area is traversed by four NE-SW trending lineaments which are from geological information interpreted to be small and very narrow shears, which are terminated on the east

by the large fault. The anomalies are almost exclusively in the mafic volcanics, although some degree of quartz veining was noted, not directly with the shears however. The following Table 6, summarizes the assay results:

TABLE 6

ASSAY RESULTS
METAVOLCANICS/SHEARS

Sample Number	Au (ppb)-oz/T	As (ppm)	Cu (ppm)	Zn (ppm)
1059	45	1	67	120
1066-1	15	5	500	1850
1066-2	5	1	175	64
1666-3	5	7	190	21
1093	75	1	74	240
2047	30	<1	39	35
2056	665/.043	14	111	17
2075	20	6	120	1820
2076	10	7	110	540
2077	10	3	60	740
2189	25	41	27	19

The flows are typically as described in the section for geology and no special features were observed which would have attracted special interest during mapping. The only noteworthy point to make is that localized silicification was noted in areas where the lineaments are interpreted to be located and near the intersection of these with the large fault.

Sample #2056 was extensively resampled and looked at in greater detail, but none of the assay results was repeated. This indicated a possible 'nugget' - effect in the original sample and hinted at

sporadic mineralization. The absence of increasing amounts of sulphide mineralization even near the silicified areas does not hold any promise for extensive gold mineralization, at least not tied up with sulphides.

The possibility that the lineaments and large fault have provided a pathway for siliceous fluids containing minor amounts of gold mineralization may explain that the anomalies are weak and localized close to the lineaments, but are restricted in extent. The area is of no immediate interest at this stage.

Ironstones

These anomalies are found in massive cherty ironstone #1114 and in an outcrop of silica rich banded ironstone #2034, 2040-42. The former is located on geology Map 1-5 while the latter two are located on Map 2-5, near Long Lake. Assay results are as follows:

TABLE 7

ASSAY RESULTS
IRONSTONES

Sample Number	Au (ppb)	As (ppm)	Cu (ppm)	Zn (ppm)
1114-2	175	7	198	42
1114-3	5	4	228	8
1114-4	5	4	260	6
2034	180	35	57	115
2041	15	50	122	900
2-42	20	<1	225	1850

Sample #1114 is located directly in the creek joining Bowen Lake and Long Lake and is found within intermediate massive to foliated flows. Faulting appears apparent with the fault running through the

creek as witnessed by sinistral displacement of about 30m along the fault. This is evident from a displaced quartz vein which outcrops on both sides of the creek. The fault trends 110° with a dip of 80S, this representing one of the major lineaments in the area. Inside the creek are strongly foliated units, almost slaty which were interpreted to be a phyllite, possibly having its origins in one of the volcanic muds which are quite possible in the area judging from the presence of the anomalous ironstone.

The ironstone is composed of black chert with disseminated aphanitic magnetite throughout. Alteration is limited to sericite within this unit in foliation planes and joints as well as carbonate. Mineralization consists of pyrite in amounts of up to 10% in disseminated form within fracture planes. Pyrrhotite was present in amounts of up to 1% in the same form.

Although the area was extensively prospected no further outcrop of this ironstone could be located.

Samples 2034 & 2040-42

Both locations correspond to an area of local magnetics in the area and an interpreted fold closure with two intersecting lineaments (see compilation Map 2-5). The ironstones are of the silica-rich variety, both with alternating beds of cherty layers and massive magnetite layers. Although separated, they may represent the same horizon.

Sample #2034 weathers dark grey black with a fresh surface of medium grey. The trend of the unit is 45° dipping 85° southeast. Pyrite is present in amounts less than .5% with pyrrhotite making up less than 1%. Although four samples were taken over the unit, only the above sample corresponded with an anomalous assay.

The #2040-42 outcrop is of more interest be it only for an interpretational aspect. The ironstone shows alternating layers of aphanitic chert up to 30 cm in width interspersed with thin (less than

1.5 cm) massive magnetite layers. The bedding in the unit has a trend of 10° dipping vertical. This orientation indicates the orientation of the lineament cutting the outcrop with the surrounding mafic volcanics having a foliation of 80° dipping vertically. The ironstone is intensively folded with the axes trending roughly N-S and plunging north. The same unit is also faulted several times in the 80° direction, again dipping vertically, this direction representing the second lineament. Downward block-faulting is shown on a small scale in the unit and surrounding zone of alteration. The faulting is towards the east as the unit appears to have been tilted.

Mineralization is present in the form of pyrite in a thin continuous band up to 2 cm wide along the ironstone/metavolcanic contact over a strike length of 30m. Intense oxidation and sericitization alters the host rock to varying degrees.

Quartz Veins in Felsic Intrusive

These areas are of no interest as the anomalies occur in small isolated quartz veins within the felsic intrusive units surrounding the metavolcanic belt. Sulphide mineralization was negligible in these veins. The following assay results were obtained:

2.11008

TABLE 8

ASSAY RESULTS

FELSIC INTRUSIVES

Sample NO.	Location	Au (PPb)-oz/T	As (ppm)	Cu (ppm)	Zn (ppm)	Pb (ppm)
0134	Map 2-5	330/.047	13	28	180	120
1165-2	Map 1-5	90	-	-	-	-
1168	Map 1-5	25	-	-	-	-
2153	Map 3-5	5	-	-	-	-
2154	Map 3-5	35	-	-	-	-
2155	Map 3-5	<5	2	22	61	-
2156	Map 3-5	180	2	25	-	1720
2157	Map 3-5	55	-	-	-	-
2158	Map 3-5	90	-	-	-	-

* Samples 2153-58 are from the trenches on 48E/37S

The veins may be resampled and some more prospecting done for possible extension of the veins. Other than this work, no further work is recommended at this point.

Respectfully Submitted

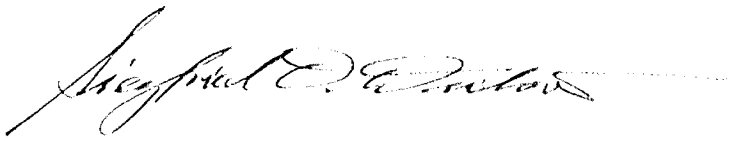
by: S. Weidner
December, 1986

SW/ca

RESUME OF QUALIFICATIONS

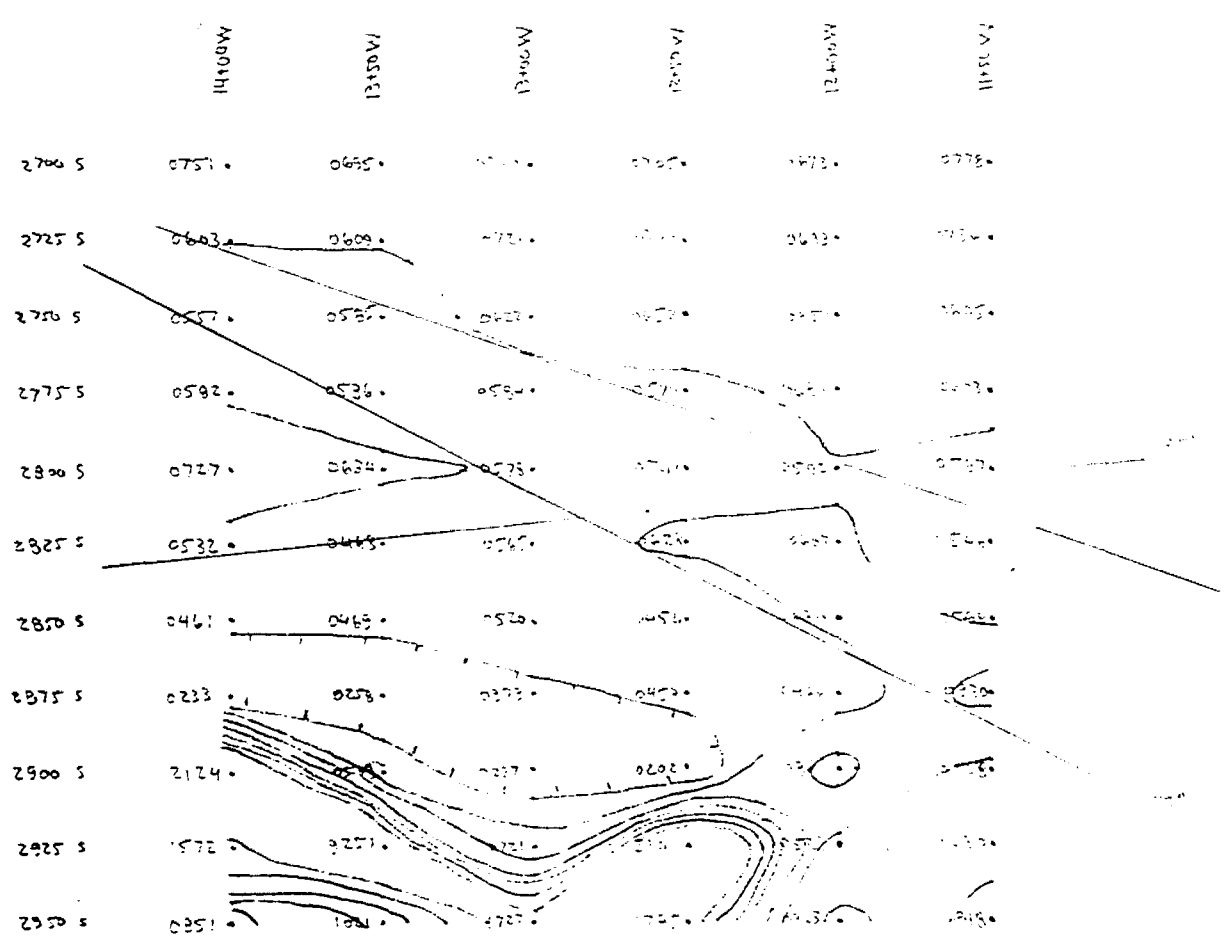
I, Siegfried O. Weidner, have earned a Bachelor of Science Degree, specializing in Geology, at the University of Toronto and have graduated in this field in the spring of 1984.

I have been gainfully employed with BHP-UTAH MINES LTD since the summer of 1984 and have a working knowledge of this report.



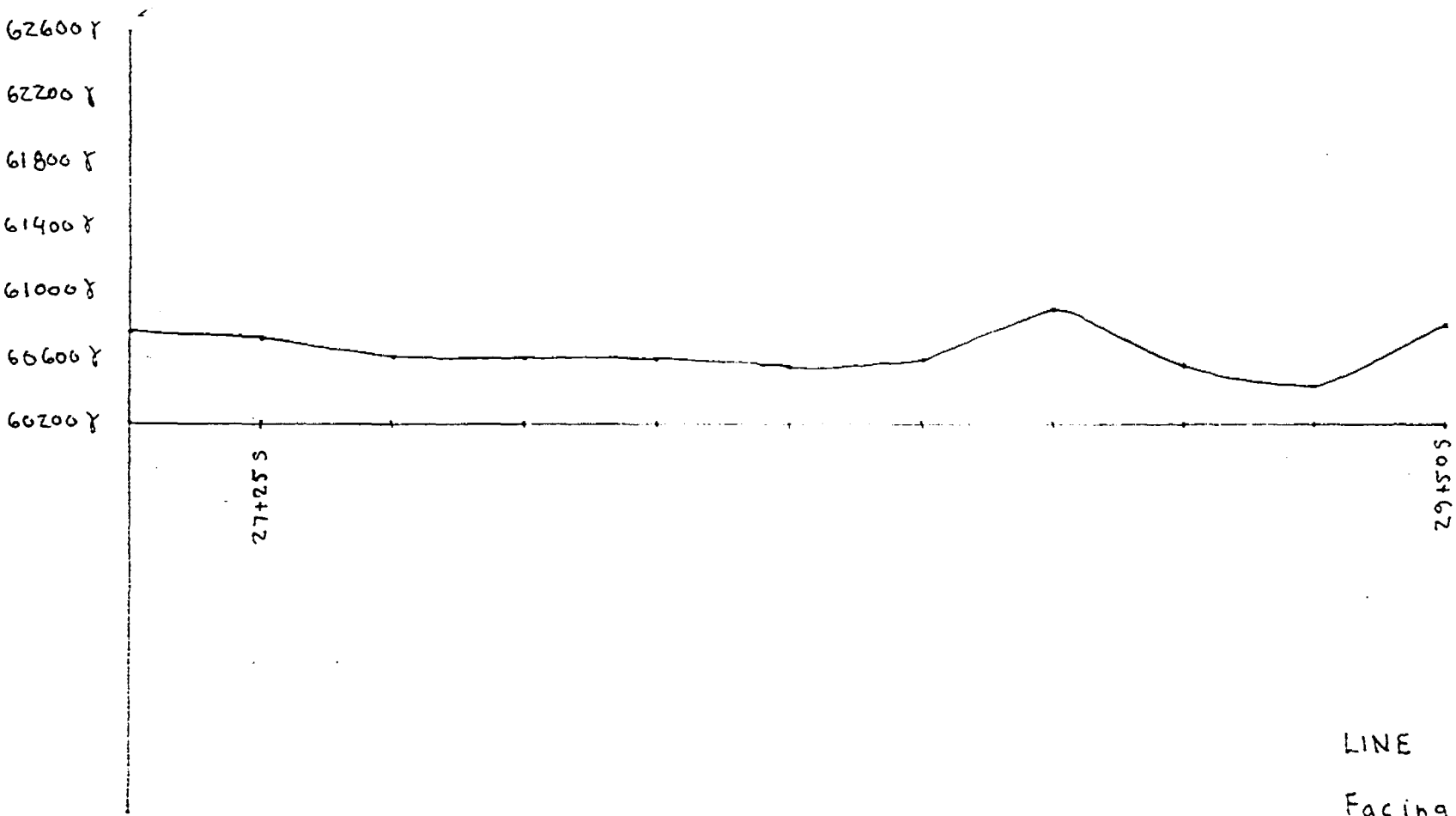
Siegfried O. Weidner

APPENDIX 1



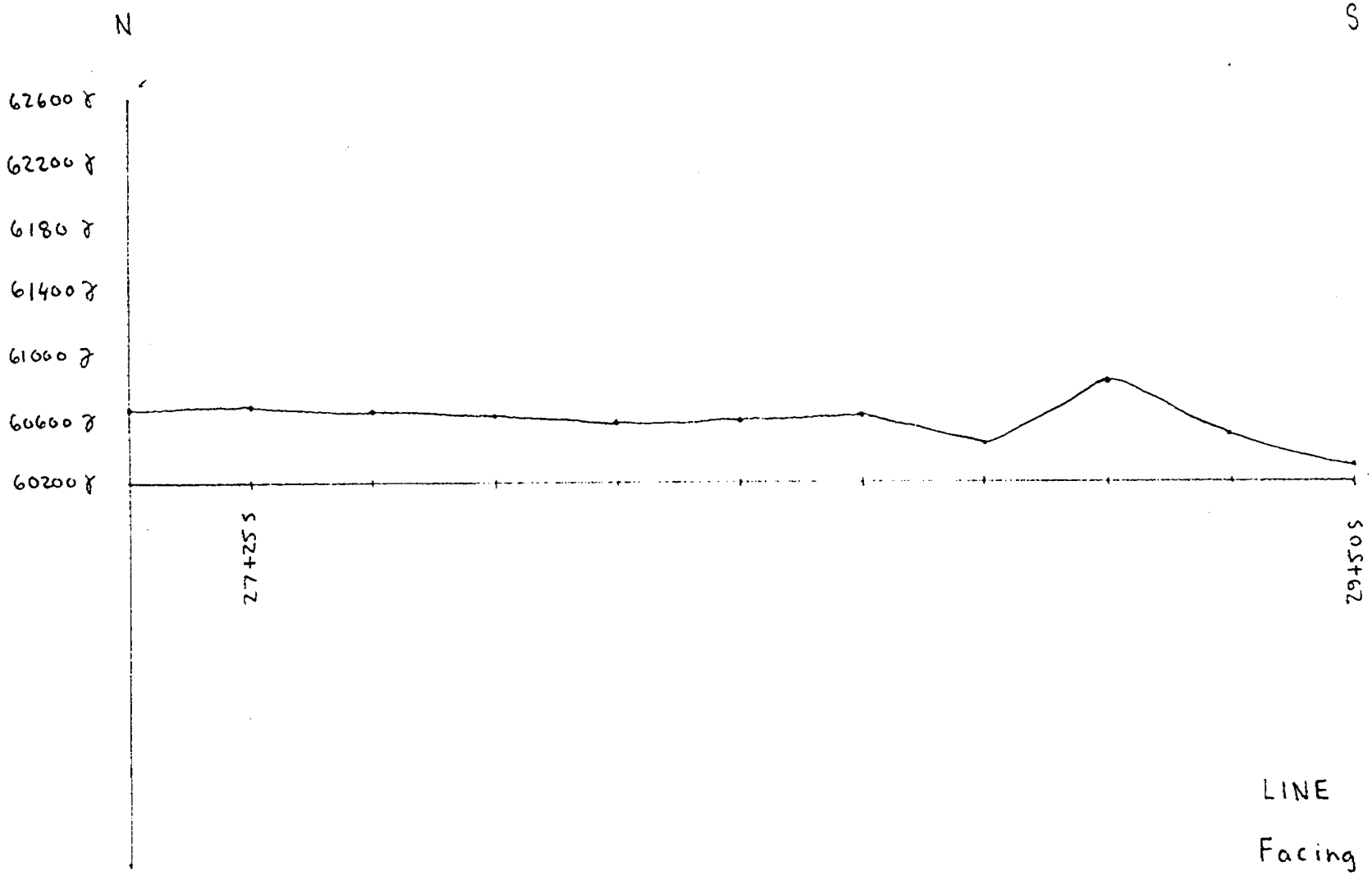
CONTOUR INTERVAL = 200 γ
BASE VALUE = 6000 γ

UTAH MINES LTD.		
MAGNETOMETER CONTOUR MAP		
Date: 23/08/86	Scale: 1cm = 25m	Opr. Craig W.



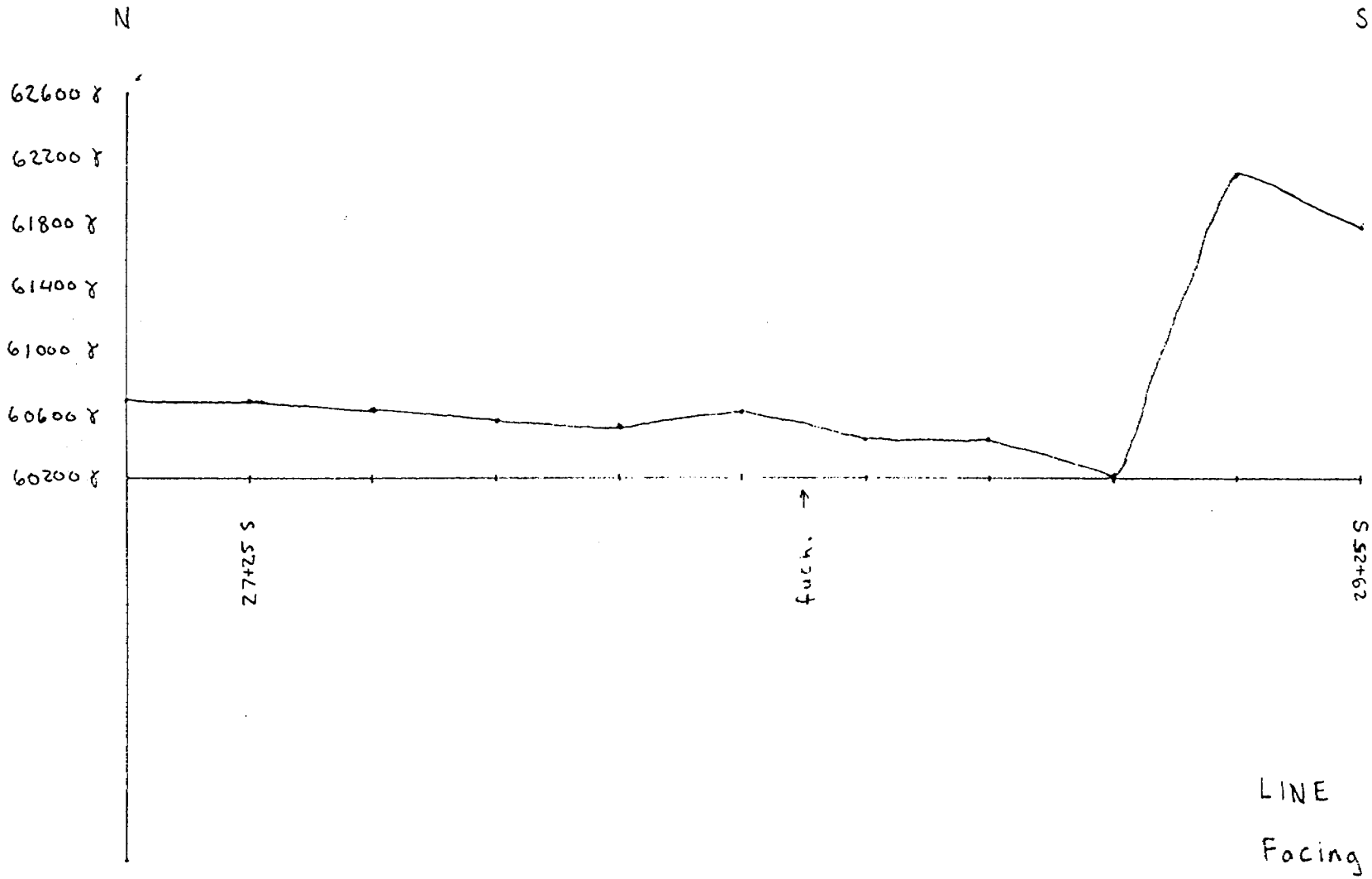
LINE 11+50 W

Facing East



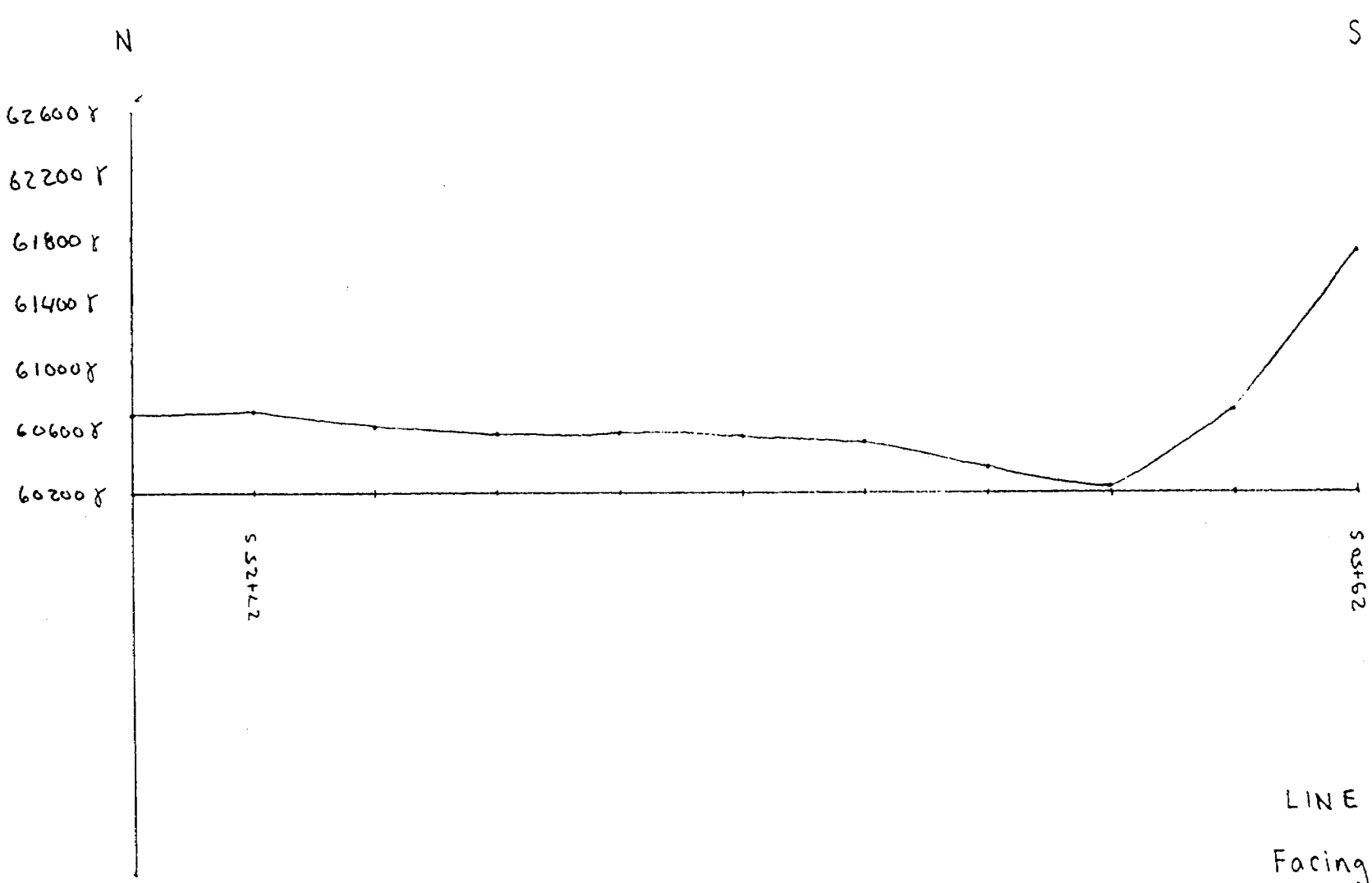
LINE 12+00 W

Facing East



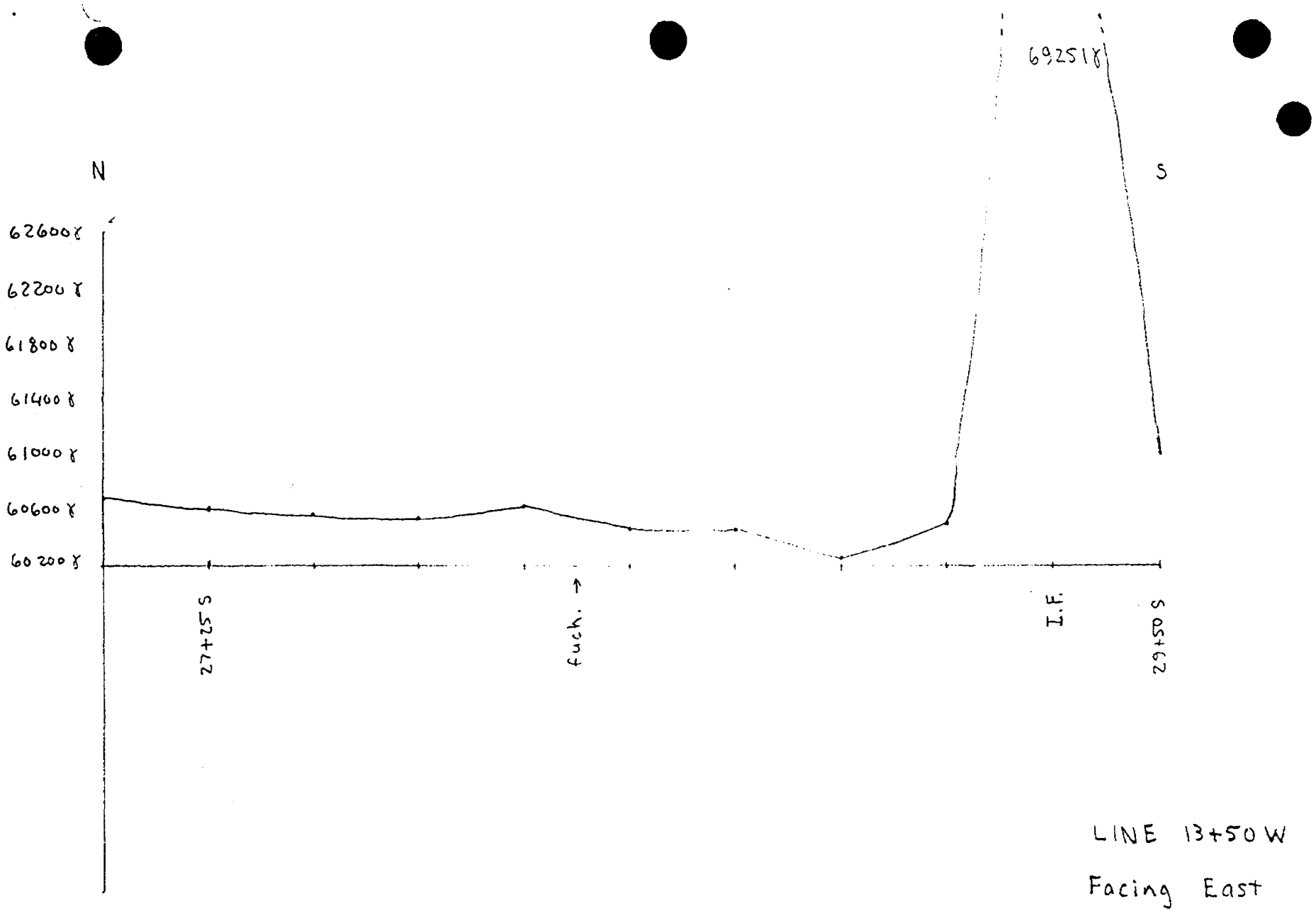
LINE 12+50 W

Facing East



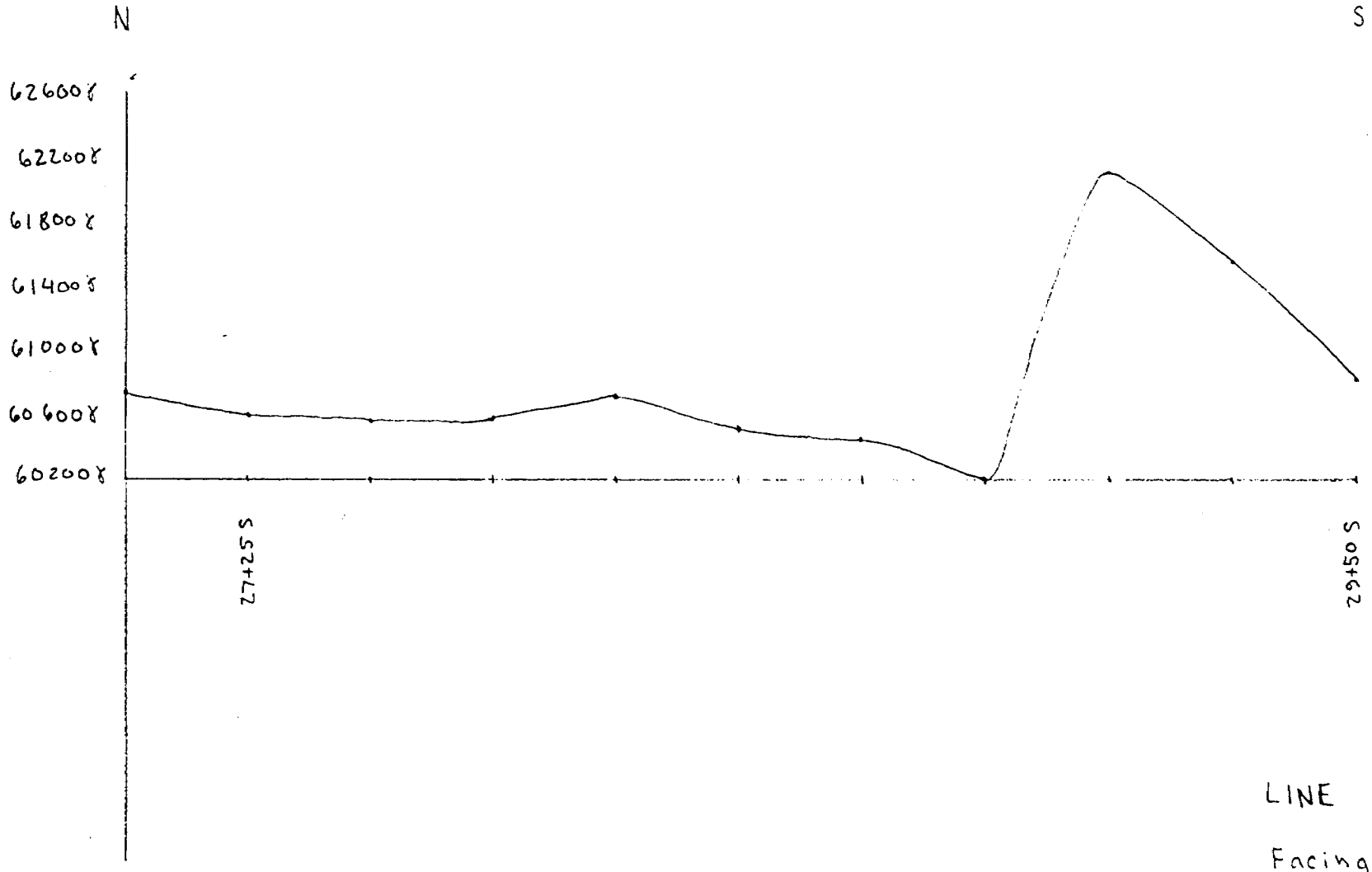
LINE 13+00 W

Facing East



LINE 13+50 W

Facing East



LINE 14+00 W

Facing East

APPENDIX II - 1

• CHEMICAL RESEARCH AND ANALYSIS
• CONTRACT LABORATORIES

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM
Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1409

INVOICE #: 35526
P.O.: Proj. 1445 LL

SAMPLE(S) OF Rock

1445 LL

	Gold (Au) ppb FA/AA	Gold oz/T	As ppm	Cu ppm	Pb ppm	Zn ppm	Mo ppm
OC 1445 0134	330	0.047	13	28	120	180	4
OC 1445 2232	25						
OC 1445 2233	5						
OC 1445 2234	5						
OC 1445 2235	815	0.038					
OC 1445 2236	<5		7	120		85	
OC 1445 3000	5		14	365		20	

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DATE Nov 04/86 SIGNED A. E. Burgener

CTA

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TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1298

INVOICE #: 34676
P.O.: Proj. 1445 LL

SAMPLE(S) OF Rock

S. Weidner
1445 LL

	Gold (Au) ppb FA/AA	As ppm	Cu ppm	Zn ppm
OC 1445 0130	5	1	7	49
OC 1445 0131	5	7	4	19
OC 1445 2228	15	1	38	16
OC 1445 2229	110	8	53	18
OC 1445 2230	20	2	41	44
OC 1445 2231	35	1	87	16
OC 1445 2232	10	<1	17	30

✓

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No.
M1247

SAMPLE(S) OF Rock

INVOICE #: 34553
P.O.: 1445 LL

S.Weidner
1445 LL

	Gold (Au) ppb FA/AA	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
1445 0081	<5	40	2	23
1445 0105	<5	4	31	35
1445 0108	15	2	60	44
1445 0111	5	1	95	33
1445 0112	<5	5	8	135
1445 2188	10	3	116	98
1445 2189	25	41	27	19
1445 2192	5	1	196	142
1445 2195	5	4	40	105
1445 2198	20	<1	63	112

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TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas

REPORT No. T6319-2

SAMPLE(S) OF ROCK

Inv# 33524
P.O. Pro.1445

Project #1445	Gold (Au) ppb FA/AA	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
2078	20			
2082	10	<1	630	68
2083	5			
2086	<5	1	160	75
2087	<5	2	100	89
2092	<5			
2093	<5			
2101	<5	2	5	8
2105	<5			
2106	<5			
2107	<5	3	23	15

Samples, Pulps and Rejects discarded after two months

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TECHNICAL SERVICE LABORATORIES
1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2
TELEPHONE : (416) 625 - 1544

CERTIFICATE OF ANALYSIS

UTAH MINES LTD.
STE. 900-25 ADELAIDE ST. E.
TORONTO ONTARIO
M5C 1Y2
YOUR REFERENCE : ATTN: MR. R. THOMAS

T.S.L. REPORT No. : T - 6247
T.S.L. File No. :
T.S.L. Invoice No. :

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
1445-2067	88.04	3.38	2.19	.92	1.07	.78	< .10	.10	.05	.07	36	32	< 10	2.07	98.66

DATE : 11-JULY-86

SIGNED : _____
Adrian H. Debnam Ph.D.

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• CONTRACT LABORATORIES

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

RECEIVED NOV 7 1986

REPORT No. M1516

INVOICE #: 35563
P.O.: Proj. 1445 LL

SAMPLE(S) OF: Rock

1445 LL

	Gold (Au) ppb FA/AA	Gold (Au) oz/T	As ppm	Cu ppm	Zn ppm
OC 1445 2241	10	<0.005	5	30	60

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1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas

REPORT No. T6319-1

Inv# 33524
P.O. Pro.1445

SAMPLE(S) OF ROCK

Project #1445	Gold (Au) ppb FA/AA	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
OC14451041	10	<1	66	46
OC14451042-1	15	<1	8	7
1042-2	30	3	32	50
1043	85	1	62	10
1108-2	5			
1112-2	5			
1113-1	5	2	172	98
1113-2	<5			
1113-3	5	2	152	38
1114-2	175	7	198	42
1114-3	5	4	228	8
1114-4	5	4	260	6
1120	<5	1	285	45
1133-3	<5	14	35	37
1139-1	<5	26	40	56
1139-2	<5	4	59	47
1141-1	<5	4	92	25
1141-3	<5			
2075	20	6	120	1820
2076	10	7	110	540
2077	10	3	60	740

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DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

RECEIVED JUL 29 1986

SAMPLE(S) FROM Utah Mines Ltd.
Ste. 900 - 25 Adelaide St. E.
Toronto, Ontario
M5C 1Y2
Attn: Mr. R. Thomas

REPORT No. T-6246

Inv#33672

SAMPLE(S) OF ROCK

Shipment 1445	Gold (Au) ppb	Gold (Au) oz/T	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
OC					
1445 2003	5		5	100	73
1445 2005	<5				
1445 2006	60		1	13	44
1445 2008	95		2	90	18
1445 2013	>1000	0.038	1	120	62
1445 2014	20		1	20	46
1445 2016	20		1	29	35
1445 2018	10		1	85	70
1445 2020	10		<1	128	61
1445 2021	10		<1	25	65
1445 2022	15		1	80	42
1445 2023	5		1	48	66
1445 2024	5		1	27	52
1445 2026	20		1	18	14
1445 2027	5		12	15	105
1445 2028	25		9	39	52
1445 2031	5		80	55	115
1445 2032	<5		5	19	38
1445 2033	20		4	1820	1600
1445 2034	180		35	57	115

cc: S. Weidner - Pickle Lake

Samples, Pulps and Rejects discarded after two months

DATE July 23/86 SIGNED _____

CTA

For any enquiries on this report, please contact Customer Service Department – Edith Anzil

• CHEMICAL RESEARCH AND ANALYSIS
• CONTRACT LABORATORIES

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Ste. 900 - 25 Adelaide St. E.
Toronto, Ontario
M5C 1Y2
Attn: Mr. R. Thomas

REPORT No. T-6246

Inv#33672

SAMPLE(S) OF ROCK

OC	Gold (Au) ppb	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
1445 2035	<5	<1	14	150
1445 2036	10	13	103	25
1445 1045-1	40 ✓			
1445 1045 DDH	10 ✓	1	17	25
1445 1046	5 ✓	8	120	1050
1445 1047-1	<5	30	88	400
1445 1047-2	20	4	15	38
1445 1048	<5	2	29	70
1445 1049	10	6	45	70
1445 1051	<5	<1	8	16
1445 1051-2	15			
1445 1052-1	<5	1	13	10
1445 1052-2	5	1	36	68
1445 1053	<5	2	67	260
1445 1054	5			
1445 1056	<5			
1445 1057-1	5	1	5	27
? 1445 1057-2	10	3	35	84
1445 1058	10	9	285	80
1445 1059	45 ✓	1	67	120

ples. Pulps and Rejects discarded after two months

DATE July 23/86 SIGNED

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1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

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SAMPLE(S) FROM Utah Mines Ltd.
Ste. 900 - Adelaide St. E.
Toronto, Ontario
M5C 1Y2
Attn: Mr. R. Thomas

REPORT No.
T-6246

Inv#33672

SAMPLE(S) OF ROCK

OC	Gold (Au) ppb	Arsenic (As) ppm	Copper (Cu) ppm	Zinc (Zn) ppm
1445 1060	15	1	43	32
1445 1062-1	10	2	76	26
1445 1062-2	5	<1	68	31
1445 1063	80	2	147	23

ples. Pulps and Rejects discarded after two months

DATE _____ SIGNED _____

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TECHNICAL SERVICE LABORATORIES
1301 FEWSTER DRIVE, MISSISSAUGA, ONTARIO L4W 1A2
TELEPHONE : (416) 625 - 1544

CERTIFICATE OF ANALYSIS

UTAH MINES LTD.
STE. 900-25 ADELAIDE ST. E.
TORONTO ONTARIO
M5C 1Y2
YOUR REFERENCE : ATTN: MR. R. THOMAS

T.S.L. REPORT No. : T - 6246
T.S.L. File No. :
T.S.L. Invoice No. :

SAMPLE #	SiO2	Al2O3	Fe2O3	CaO	MgO	Na2O	K2O	TiO2	MnO	P2O5	Ba	Sr	Zr	LOI	TOTAL
1445-2005	61.23	16.87	6.77	4.87	1.75	3.37	2.03	.56	.13	.24	623	630	135	1.93	99.91

DATE : 11-JULY-86

SIGNED : _____
Adrian H. Debnam Ph.D.

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TELEPHONE (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1192

INVOICE #: 34287
P.O.: 1445

SAMPLE(S) OF Rock

S.Weidner
Project no. 1445

	Gold (Au) ppb FA/AA	Ag ppm	As ppm	Cu ppm	Zn ppm
OC 1445 0083 TR	20				
OC 1445 0084	5		1		
OC 1445 0083	<5		2	65	152
OC 1445 0088	5		8	54	86
OC 1445 1231	5				
OC 1445 1232	<5				
OC 1445 2173	<5	0.2	<1	89	100
OC 1445 2174	5	0.2	1	200	20
OC 1445 2182	<5		1	150	5
OC 1445 2183	5		2	86	42
OC 1445 2184	<5		3	40	49
OC 1445 2185	<5		1	17	40
OC 1445 2186	5		5	162	100
OC 1445 2187	<5		1	8	60

COPIES TO: S.Weidner
INVOICE TO: Toronto

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DATE Aug 27/86 SIGNED Rob E Burgener

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

33519

SAMPLE(S) FROM Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas

REPORT No. T6247-1

SAMPLE(S) OF ROCK

Copies to S. Weidner - Pickl
P.O. Pro.1445

Project OC 1145	Gold ppb	Arsenic ppm	Copper ppm	Zinc ppm	W.R.
1445 0013	5				
1445 0016	<5	7	156	25	
1445 0017	<5	6	72	24	
1445 0031	<5	2	14	5	
1445 0032	5	1	6	10	
1445 0034	<5	2	6	6	
1445 0035	<5	2	7	11	
1445 0036	5	<1	152	30	
1445 0037	10	3	30	67	
1445 0038	10	1	28	39	
1445 0057	5	2	14	86	
1445 0062	30	2	25	590	
1445 0068	<5	3	9	120	
1445 0069	5	<1	3	76	
1445 0071	<5	2	13	290	
1445 0072	5	3	23	60	
1445 0073	<5	<1	10	111	
1445 0075	<5				
1445 0076	10	2	33	47	
1445 0078	5				

ples. Pulps and Rejects discarded after two months

DATE July 15/86 SIGNED _____

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

33519

SAMPLE(S) FROM Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas
SAMPLE(S) OF ROCK

REPORT No. T6247-4

Copies to S. Weidner - Pickl
P.O. Pro.1445

Project 1145	Gold ppb	Arsenic ppm	Copper ppm	Zinc ppm	W.R.
No number	15	<1	91	45	
1445 0056	20	2	580	55	

ples, Pulps and Rejects discarded after two months

DATE July 15/86 SIGNED

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

33519

SAMPLE(S) FROM
Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas

REPORT No. T6247-2

Copies to S. Weidner - Pickl
P.O. Pro.1445

SAMPLE(S) OF ROCK

Project 1145	Gold ppb	Arsenic ppm	Copper ppm	Zinc ppm	W.R.
1445 0079	10	1	62	56	
1445 0080	<5				
1445 0081	10	1	8	8	
1445 0082	<5	<1	18	15	
1445 0083	<5	24	18	65	
1445 0085	5				
1445 0086	<5	1	12	9	
1445 0087	5	2	23	8	
1445 1045DD2	5	<1	4	6	
1445 1066	15	5	500	1850	✓
1445 1066	5	1	175	64	
1445 1066	5	7	190	21	
1445 1068	5	1	235	56	
1445 1074	25	18	530	1280	✓
1445 1074	20	1	28	34	
1445 1076	5	1	5	6	
1445 1076	5	16	62	79	
1445 1078	<5	2	26	127	
1445 1080	5	1	18	94	
1445 1080	5	1	20	34	

Samples, Pulps and Rejects discarded after two months

DATE July 15/86 SIGNED

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

33519

SAMPLE(S) FROM
Utah Mines Ltd Tor.
Ste. 900 - 25 Adelaide St.E.
Toronto Ontario
M5C 1Y2
ATTn Mr. R. Thomas
SAMPLE(S) OF ROCK

REPORT No.
T6247-3

Copies to S. Weidner - Pickle
P.O. Pro.1445

Project 1145	Gold ppb	Arsenic ppm	Copper ppm	Zinc ppm	W.R.
1445 1082	<5	2	46	157	
1445 1083	10	1	172	5	
1445 1083	5	<1	22	135	
1445 1084	5	<1	10	50	
1445 1088	10	<1	63	45	
1445 1091	5	<1	19	6	
1445 1092	20	25	60	95	
1445 1093	75	1	74	240	
1445 2041	15	50	122	900	
1445 2042	20	<1	225	1850	
1445 2045	10	<1	124	4300	
1445 2047	30	<1	39	35	
1445 2050	<5	<1	79	95	
1445 2051	<5	4	31	37	
1445 2054	5	1	31	35	
1445 2056	665	0.043 oz/T	111	17	
1445 2057	20	5	20	40	
1445 2066	15				
1445 2067	15				
16N-WK-1	20	<1	28	51	

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DATE July 15/86 SIGNED

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TECHNICAL SERVICE LABORATORIES
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TELEPHONE (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

RECEIVED AUG 14 1986

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No.
M1072

INVOICE #: 33964
P.O.: 1145

SAMPLE(S) OF Rock

W. Kornik
1145

	Gold (Au) ppb FA/AA	Arsenic As ppm	Copper Cu ppm	Zinc Zn ppm	Lead Pb ppm
OC14451144-2	5				
OC14451153-2	15				
OC14451157-1	10	3	124	12	
OC14451157-2	10	3	235	295	
OC14451157-3	<5	17	60	17	
OC14451163-2	<5	2	4	7	
OC14451165-2	90 ✓				
OC14451167-2	5	2	3	3	
OC14451168	25 ✓				
OC14451176-2	35 ✓				
OC14451181-2	<5	6	10	38	
OC14451188-2	<5				
OC14451191	<5	2	57	63	
OC14451195-1	<5	2	210	112	
OC14451195-2	10				
OC1200-2	5				
OC1207	35 ✓				
OC14452141	5	10	162	156	
OC14452143	10	2	620	32	
OC14452144	10	2	290	30	

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Samples. Pulps and Rejects discarded after two months

DATE Aug 11/86 SIGNED

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TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

RECEIVED AUG 22 1986

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1072

INVOICE #: 33964
P.O.: 1145

SAMPLE(S) OF Rock

W. Kornik
1145

	Gold (Au) ppb FA/AA	Arsenic As ppm	Copper Cu ppb	Zinc Zn ppm	Lead Pb ppm
0C14452149	5	2	13	17	
0C14452153	5				
0C14452154	35				
0C14452155	<5	2	22	61	
0C14452156	180	2	25		1220
0C14452157	55				
0C14452158	90				
0C14452161	<5	2	3	18	
0C14452163	20	1	12	47	
0C14452166	10	2	32	20	
0C14452168	15	12	225	96	
0C14452169	<5	2	14	112	
0C14452170	10				
0C14452171	<5	2	17	25	

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1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1298

SAMPLE(S) OF Rock

INVOICE #: 34676
P.O.: Proj. 1445 LL

S. Weidner
1445 LL

	Gold (Au) ppb FA/AA	As ppm	Cu ppm	Zn ppm
OC 1445 0130	5	1	7	49
OC 1445 0131	5	7	4	19
OC 1445 2228	15	1	38	16
OC 1445 2229	110	8	53	18
OC 1445 2230	20	2	41	44
OC 1445 2231	35	1	87	16
OC 1445 2232	10	<1	17	30

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INVOICE TO: Toronto

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DATE ~~Sep 19/86~~ SIGNED

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• CHEMICAL RESEARCH AND ANALYSIS
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TECHNICAL SERVICE LABORATORIES
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1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1296

INVOICE #: 34675
P.O.: 1445 LL

SAMPLE(S) OF Rock

S. Weidner
1445 LL

	Gold (Au) ppb FA/AA	Ag ppm	As ppm	Cu ppm	Pb ppm	Zn ppm	Mo ppm
OC 1445 0107	5						
OC 1445 0125	<5		1	36		142	
OC 1445 0122	<5		<1	29		19	
OC 1445 1232A	5						
OC 1445 2209	20		5	122		58	
OC 1445 2210	5	<0.2		16	2		<2
OC 1445 2211	190	296.6		65	>10000		<2
OC 1445 2212	5	1.2		5	48		<2
OC 1445 2213	10		9	83		86	
OC 1445 2214	10		24	10		6	
OC 1445 2215	10		8	35		14	
OC 1445 2216	5						
OC 1445 2221	<5		5	40		90	
OC 1445 2226	20		<1	74		25	
OC 1445 2227	<5		9	73		70	

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DATE Sep 19/86 SIGNED

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APPENDIX II - 2

• CHEMICAL RESEARCH AND ANALYSIS
• CONTRACT LABORATORIES

TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

RECEIVED DEC - 1 1986

REPORT No.
M1685

INVOICE #: 35883
P.O.: Proj. 1445 LL

SAMPLE(S) OF Soil

1445 LL

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
SS1445 0001	5	
SS1445 0002	<5	
SS1445 0003	<5	
SS1445 0004	30	
SS1445 0005	30	
SS1445 0006	<5	
SS1445 0007	15	
SS1445 0008	15	
SS1445 0030	5	
SS1445 0031	5 (<5,5)	
SS1445 0032	<5	
SS1445 0033	<5	
SS1445 0034	<5	
SS1445 0035	<5	
SS1445 0036	5	
SS1445 0037	<5	
SS1445 0038	5	
SS1445 0039	5	
SS1445 0040	15	
SS1445 0041	5	

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INVOICE TO: Toronto

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TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1685

INVOICE #: 35883
P.O.: Proj. 1445 LL

SAMPLE(S) OF: Soil

1445 LL

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
SS1445 0042	20 (20,20)	
SS1445 0043	<5	
SS1445 0044	10	
SS1445 0045	5	
SS1445 0046	15	
SS1445 0047	15	
SS1445 0048	<5	
SS1445 0049	15	
SS1445 0050	15	
SS1445 1001	5 (10,<5)	
SS1445 1002	5	
SS1445 1003	<5	
SS1445 1004	40	
SS1445 1005	10	
SS1445 1007	40	
SS1445 1008	5	
SS1445 1009	5	
SS1445 1010	<5	
SS1445 1011	5	
SS1445 1012	40	

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1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1685

INVOICE #: 35883
P.O.: Proj. 1445 LL

SAMPLE(S) OF: Soil

1445 LL

	Gold (Au) ppb FA/AA		Gold (Au) oz/T
SS1445 1013	5		
SS1445 1014	5		
SS1445 1015	5	(5,<5)	
SS1445 1016	>1000		0.026
SS1445 1017	<5		
SS1445 1018	<5		
SS1445 1019	<5		
SS1445 1020	<5		
SS1445 1030	<5		
SS1445 1032	<5		
SS1445 1033	<5		
SS1445 1034	<5		
SS1445 1035	<5		
SS1445 2001	<5		
SS1445 2002	<5		
SS1445 2003	<5		
SS1445 2004	<5		
SS1445 2006	<5		
SS1445 2007	<5		
SS1445 2010	<5	(<5,<5)	

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INVOICE TO: Toronto

Samples, Pulps and Rejects discarded after two months

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DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No.
M1685

SAMPLE(S) OF Soil

INVOICE #: 35883
P.O.: Proj. 1445 LL

1445 LL

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
SS1445 2011	<5	
SS1445 2049	<5	
SS1445 2050	5	
SS1445 2051	<5	
SS1445 2052	<5	
SS1445 2053	<5	
SS1445 2054	<5	
SS1445 3001	<5	
SS1445 3002	10	
SS1445 3003	5 (5,5)	
SS1445 3004	<5	
SS1445 3005	<5	
SS1445 3006	15	
SS1445 3007	<5	
SS1445 3008	<5	
SS1445 3009	5	
SS1445 3010	<5	
SS1445 3011	<5	
SS1445 3012	<5 (<5,<5)	
SS1445 3013	<5	

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DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1685

SAMPLE(S) OF: Soil

INVOICE #: 35883
P.O.: Proj. 1445 LL

1445 LL

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
SS1445 3014	5	
SS1445 3015	<5	
SS1445 3016	<5	
SS1445 3017	<5	
SS1445 3018	<5	
SS1445 3019	<5	
SS1445 3020	<5	
SS1445 3021	<5	
SS1445 3022	<5	
SS1445 3023	5	
SS1445 3024	10 (5,10)	
SS1445 0090	10	
SS1445 0091	10	
SS1445 0092	<5	
SS1445 0093	5	

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TECHNICAL SERVICE LABORATORIES
DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED
1301 FEWSTER DRIVE, MISSISSAUGA, ONT. L4W 1A2
TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

RECEIVED NOV 7 1986

REPORT No. M1607

INVOICE #: 35554
P.O.: Proj. 1445 LL

SAMPLE(S) OF Soil

1445 LL

	Gold (Au) ppb FA/AA
SS1445 0087	5
SS1445 0088	30
SS1445 0089 A00	5
SS1445 1036 A00	30
SS1445 1037 A00	15
SS1445 1038 A00	5
SS1445 1039 A00	5
SS1445 1040 A00	20
SS1445 1041 A00	5
SS1445 1042 B1	5
SS1445 1043 A00	5
SS1445 1045 B1	<5
SS1445 1046 B1	10
SS1445 1066 A00	10
SS1445 1067 A00	5
SS1445 1068 B1	5
SS1445 1069 A00	155
SS1445 1070 A00	10
SS1445 1071 A00	5
SS1445 1072 A00	10

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Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1607

INVOICE #: 35554
P.O.: Proj. 1445 LL

SAMPLE(S) OF Soil

1445 LL

	Gold (Au) ppb FA/AA
SS1445 1073 B1	5
SS1445 1074 A00	10
SS1445 1075 B1	<5
SS1445 1076 A00	<5
SS1445 1077 A00	<5
SS1445 1078 A00	5
SS1445 1079 B1	5
SS1445 1080 A00	5
SS1445 1081 B1	5
SS1445 1082 A00	10
SS1445 1083 B1	10
SS1445 1084 A00	10
SS1445 1085 B1	10
SS1445 1086 Au	10

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Suite 900
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M5C 1Y2

REPORT No. M1530

INVOICE #: 35210
P.O.: Proj. 1445 LL

SAMPLE(S) OF: Soil

S.Weidner
Project. 1445 LL

	Gold (Au) ppb FA/AA
SS 1445 2338	25
SS 1445 2339	70
SS 1445 2340	20
SS 1445 2341	15
SS 1445 2342	15
SS 1445 2343	25
SS 1445 2344	300
SS 1445 2345	20
SS 1445 2346	25
SS 1445 2347	40
SS 1445 2348	20
SS 1445 2349	20
SS 1445 2350	30
SS 1445 2351	20
SS 1445 2352	20
SS 1445 2353	135
SS 1445 2354	20
SS 1445 2355	20
SS 1445 2356	20
SS 1445 2357	30

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Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1530

INVOICE #: 35210
P.O.: Proj. 1445 LL

SAMPLE(S) OF Soil

S.Weidner
Project. 1445 LL

	Gold (Au) ppb FA/AA
SS 1445 2358	30
SS 1445 2359	20
SS 1445 2360	25
SS 1445 2361	20
SS 1445 2362	30
SS 1445 2363	10
SS 1445 2364	15
SS 1445 2365	10
SS 1445 2366	15
SS 1445 2367	20
SS 1445 2368	20
SS 1445 2369	30
SS 1445 2370	20
SS 1445 2371	20
SS 1445 2372	20
SS 1445 2373	15
SS 1445 2374	15
SS 1445 2375	65
SS 1445 2376	15
SS 1445 2377	15

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SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0001	5	
TL 1445 0002	<5	
TL 1445 0003	<5	
TL 1445 0004	5	
TL 1445 0005	<5	
TL 1445 0006	5	
TL 1445 0007	5	
TL 1445 0008	5	
TL 1445 0009	5	
TL 1445 0010	5	
TL 1445 0011	5	
TL 1445 0012	<5	
TL 1445 0013	5	
TL 1445 0014	<5	
TL 1445 0015	<5	
TL 1445 0016	<5	
TL 1445 0017	5	
TL 1445 0020	<5	
TL 1445 0025	5	
TL 1445 0026	10	

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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0027	5	
TL 1445 0028	5	
TL 1445 0029	<5	
TL 1445 0030	<5	
TL 1445 0031	5	
TL 1445 0032	<5	
TL 1445 0033	<5	
TL 1445 0034	<5	
TL 1445 0035	<5	
TL 1445 0036	5	
TL 1445 0037	5	
TL 1445 0038	5	
TL 1445 0039	5	
TL 1445 0040	5	
TL 1445 0041	5	
TL 1445 0042	5	
TL 1445 0043	5	
TL 1445 0044	10	
TL 1445 0045	5	
TL 1445 0046	5	

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DATE Oct 23/86 SIGNED Jack E Burgan

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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0047	5	
TL 1445 0048	10	
TL 1445 0049	5	
TL 1445 0051	5	
TL 1445 0052	5	
TL 1445 0053	5	
TL 1445 0054	5	
TL 1445 0055	5	
TL 1445 0056	<5	
TL 1445 0057	15	
TL 1445 0058	5	
TL 1445 0059	5	
TL 1445 0060	5	
TL 1445 0061	5	
TL 1445 0062	5	
TL 1445 0063	5	
TL 1445 0064	5	
TL 1445 0065	10	
TL 1445 0066	15	
TL 1445 0067	5	

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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
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REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0069	5	
TL 1445 0071	5	
TL 1445 0072	20	
TL 1445 0073	10	
TL 1445 0074	5	
TL 1445 0075	5	
TL 1445 0076	5	
TL 1445 0077	5	
TL 1445 0078	5	
TL 1445 0079	5	
TL 1445 0080	20	
TL 1445 0081	10	
TL 1445 0082	5	
TL 1445 0083	5	
TL 1445 0084	5	
TL 1445 0085	<5	
TL 1445 0086	5	
TL 1445 0087	5	
TL 1445 0089	5	
TL 1445 0090	5	

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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0091	5	
TL 1445 0093	10	
TL 1445 0094	10	
TL 1445 0095	5	
TL 1445 0096	15	
TL 1445 0097	10	
TL 1445 0098	<5	
TL 1445 0099	5	
TL 1445 0100	10	
TL 1445 0101	5	
TL 1445 0102	5	
TL 1445 0103	5	
TL 1445 0104	5	
TL 1445 0107	5	
TL 1445 0108	10	
TL 1445 0112	5	
TL 1445 0113	5	
TL 1445 0114	10	
TL 1445 0115	5	
TL 1445 0116	5	

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CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

INVOICE #: 35271
P.O.: Proj. 1445 LL

SAMPLE(S) OF Till

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0117	5	
TL 1445 0118	5	
TL 1445 0119	<5	
TL 1445 0120	<5	
TL 1445 0121	<5	
TL 1445 0122	10	
TL 1445 0123	5	
TL 1445 0124	<5	
TL 1445 0125	<5	
TL 1445 0126	15	
TL 1445 0127	<5	
TL 1445 0129	<5	
TL 1445 0132	5	
TL 1445 0133	5	
TL 1445 0134	<5	
TL 1445 0135	<5	
TL 1445 0136	<5	
TL 1445 0137	<5	
TL 1445 0138	<5	
TL 1445 0139	5	<0.005

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TELEPHONE: (416) 625-1544
TELEX 06-960215

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM: Utah Mines Ltd.
Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF: Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0140	5	<0.005
TL 1445 0141	5	
TL 1445 0143	<5	
TL 1445 0144	<5	
TL 1445 0145	<5	
TL 1445 0146	5	
TL 1445 0147	<5	
TL 1445 0149	5	
TL 1445 0150	<5	
TL 1445 0151	10	
TL 1445 0152	5	
TL 1445 0153	<5	
TL 1445 0154	5	
TL 1445 0155	5	
TL 1445 0156	<5	
TL 1445 0157	<5	
TL 1445 0158	15	
TL 1445 0159	<5	
TL 1445 0161	5	
TL 1445 0162	20	

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25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0163	5	
TL 1445 0164	15	
TL 1445 0165	10	
TL 1445 0166	<5	
TL 1445 0167	<5	
TL 1445 0168	5	
TL 1445 0169	<5	
TL 1445 0170	<5	
TL 1445 0171	<5	
TL 1445 0173	<5	
TL 1445 0174	5	
TL 1445 0175	5	
TL 1445 0176	5	
TL 1445 0177	10	
TL 1445 0178	95	
TL 1445 0179	5	
TL 1445 0180	5	
TL 1445 0181	5	
TL 1445 0182	5	
TL 1445 0183	10	

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Suite 900
25 Adelaide St. East
Toronto Ontario
M5C 1Y2

REPORT No. M1501

SAMPLE(S) OF Till

INVOICE #: 35271
P.O.: Proj. 1445 LL

S.Weidner
Project. 1445 LL

REMARKS: Missing: 0068,0172

	Gold (Au) ppb FA/AA	Gold (Au) oz/T
TL 1445 0185	10	
TL 1445 0186	10	
TL 1445 0187	5	

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Ministry of
Northern Development
and Mines

Ontario

Ministère du
Développement du Nord
et des Mines

900

May 20, 1988

Your File: W8803-073
Our file: 2.11008

Mining Recorder
Ministry of Northern Development and Mines
Court House
P.O. Box 3000
Sioux Lookout, Ontario
P0V 2T0

Dear Sir:

RE: Notice of Intent dated May 5, 1988
Geological Survey submitted on
Mining Claims Pa 852117 et al
in the Areas of Baggy, Stoughton and McVicar Lakes

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

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

Yours sincerely,

W.R. Cowan, Manager
Mining Lands Section
Mines and Minerals Division

Whitney Block, Room 6610
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

AB:pl
Enclosure: Technical Assessment Work Credits

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

Resident Geologist
Sioux Lookout, Ontario

BHP-Utah Mines Ltd.
Suite 900
25 Adelaide Street E.
Toronto, Ontario
M5C 1Y2

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File: 2.11008

Date: May 5, 1988

Mining Recorder's Report of Work No.: W8803-073

Recorded Holder: BHP-Utah Mines Ltd.

~~Township~~ Area: Baggy, Stoughton & McVicar Lakes

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	KRL 852117-19
Electromagnetic _____ days	852895-96-97
Magnetometer _____ days	852899 to 933 incl.
Radiometric _____ days	852935 to 39 incl.
Induced polarization _____ days	852941 to 47 incl.
Other _____ days	852949 to 52 incl.
Section 77 (19) See "Mining Claims Assessed" column	852954 to 65 incl.
Geological 28.6 days	852967 to 87 incl.
Geochemical _____ days	852989 to 853004 incl.
Man days ☐ Airborne ☐	853006 to 21 incl.
Special provision ☒ Ground ☒	853023-25 to 30 incl.
☒ Credits have been reduced because of partial coverage of claims.	853032-33-34-36 to 40 incl.
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	853044-48 to 73 incl.
	853075 to 118 incl.
	868683 to 96 incl.
	868756 to 76 incl.
	868811 to 17 incl.
	868819 to 25 incl.
	868828 to 35 incl.
	868719 to 35 incl.
	868805 to 10 incl.
	868874 to 85 incl.
	890541 to 46 incl.
	890569 to 78 incl.
	902931 to 34 incl.
	902938
	902949 to 53 incl.
	902956-57-58
	902983-84-85
	KRL 902987 to 903000 incl.
	903401 to 08 incl.
	903439

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

No credits have been allowed for the following mining claims

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

Remove. NO Credits

KRL 852898	KRL 853022	KRL 902986
852934	853024	
852940	853031	
852948	868818	
852953	868826-27	
852966	902929-30	
852988	902935-36-37	
853005	902954-55	

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

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

DOCUMENT No. W8803·073

2.11008

Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

Type of Survey(s): GEOLOGICAL (INCLUDING LINECUTTING)

Township or Area: G-2228 G-2121 BAGLEY LAKE G-1945 STOUGHTON & MCVICAR LAKE AREAS

Claim Holder(s): BHP-Utah Mines Ltd.

Prospector's Licence No.: T.793

Address: 900-25 Adelaide St. E Toronto, Ont. M5C 1Y2

Survey Company: SAME AS ABOVE

Date of Survey (from & to): 15 05 86 (Day, Mo., Yr.) — 28 09 86 (Day, Mo., Yr.)

Total Miles of line Cut: 300 KM

Name and Address of Author (of Geo-Technical report): Siefried Weidner 569 Moneta Ave. P.O. Box 1953 Timmins, Ontario P4N 7X1

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions: For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	40
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
KRL	852117 ET AL	
	SEE APPENDED	
	LIST	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

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APR 11 1988
MINING LANDS SECTION

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MAR 16 1988
PATRICIA MINING DIVISION

Total number of mining claims covered by this report of work: 376

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
15,040	March 16, 1988	
	Date Approved as Recorded	Branch Director
	See revised Statement	

Date: March 11, 88

Recorded Holder or Agent (Signature): Rodney J Thomas

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: Rodney Thomas BHP-Utah Mines Limited #900-25 Adelaide St. East Toronto, Ont. M5C 1Y2

Date Certified: March 11, 1988

Certified by (Signature): Rodney J Thomas

1362 (81/9)

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	852117	850807	80	20	40
KRL	852119	850807	80	20	40
KRL	852895	850807	80	20	40
KRL	852896	850807	80	20	40
KRL	852897	850807	80	20	40
KRL	852898	850807	80	20	40
KRL	852899	850807	80	20	40
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KRL	852901	850807	80	20	40
KRL	852902	850807	80	20	40
KRL	852903	850807	80	20	40
KRL	852904	850807	80	20	40
KRL	852905	850807	80	20	40
KRL	852906	850807	80	20	40
KRL	852907	850807	80	20	40
KRL	852908	850807	80	20	40
KRL	852909	850807	80	20	40
KRL	852910	850807	80	20	40
KRL	852911	850807	80	20	40
KRL	852912	850807	80	20	40
KRL	852913	850807	80	20	40
KRL	852914	850807	80	20	40
KRL	852915	850807	80	20	40
KRL	852916	850807	80	20	40
KRL	852917	850807	80	20	40
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KRL	852919	850807	80	20	40
KRL	852920	850807	80	20	40
KRL	852921	850807	80	20	40
KRL	852922	850807	80	20	40
KRL	852923	850807	80	20	40
KRL	852924	850807	80	20	40
KRL	852925	850807	80	20	40
KRL	852926	850807	80	20	40
KRL	852927	850807	80	20	40
KRL	852928	850807	80	20	40
KRL	852929	850807	80	20	40
KRL	852930	850807	80	20	40
KRL	852931	850807	80	20	40
KRL	852932	850807	80	20	40
KRL	852933	850807	80	20	40
KRL	852934	850807	80	20	40
KRL	852935	850807	80	20	40
KRL	852936	850807	80	20	40
KRL	852937	850807	80	20	40
KRL	852938	850807	80	20	40
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KRL	852942	850807	80	20	40
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KRL	852945	850807	80	20	40
KRL	852946	850807	80	20	40
KRL	852947	850807	80	20	40
KRL	852948	850807	80	20	40
KRL	852949	850807	80	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	852950	850807	80	20	40
KRL	852951	850807	80	20	40
KRL	852952	850807	80	20	40
KRL	852953	850807	80	20	40
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KRL	852955	850807	80	20	40
KRL	852956	850807	80	20	40
KRL	852957	850807	80	20	40
KRL	852958	850807	80	20	40
KRL	852959	850807	80	20	40
KRL	852960	850807	80	20	40
KRL	852961	850807	80	20	40
KRL	852962	850807	80	20	40
KRL	852963	850807	80	20	40
KRL	852964	850807	80	20	40
KRL	852965	850807	80	20	40
KRL	852966	850807	80	20	40
KRL	852967	850807	80	20	40
KRL	852968	850807	80	20	40
KRL	852969	850807	80	20	40
KRL	852970	850807	80	20	40
KRL	852971	850807	80	20	40
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KRL	852973	850807	80	20	40
KRL	852974	850807	80	20	40
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KRL	852977	850807	80	20	40
KRL	852978	850807	80	20	40
KRL	852979	850807	80	20	40
KRL	852980	850807	80	20	40
KRL	852981	850807	80	20	40
KRL	852982	850807	80	20	40
KRL	852983	850807	80	20	40
KRL	852984	850807	80	20	40
KRL	852985	850807	80	20	40
KRL	852986	850807	80	20	40
KRL	852987	850807	80	20	40
KRL	852988	850807	80	20	40
KRL	852989	850807	80	20	40
KRL	852990	850807	80	20	40
KRL	852991	850807	80	20	40
KRL	852992	850807	80	20	40
KRL	852993	850807	80	20	40
KRL	852994	850807	80	20	40
KRL	852995	880807	80	20	40
KRL	852996	850807	80	20	40
KRL	852997	850807	80	20	40
KRL	852998	850807	80	20	40
KRL	852999	850807	80	20	40
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KRL	853002	850807	80	20	40
KRL	853003	850807	80	20	40
KRL	853004	850807	80	20	40
KRL	853005	850807	80	20	40
KRL	853006	850807	80	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	853007	850807	80	20	40
KRL	853008	850807	80	20	40
KRL	853009	850807	80	20	40
KRL	853010	850807	80	20	40
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KRL	853012	850807	80	20	40
KRL	853013	850807	80	20	40
KRL	853014	850807	80	20	40
KRL	853015	850807	80	20	40
KRL	853016	850807	80	20	40
KRL	853017	850807	80	20	40
KRL	853018	850807	80	20	40
KRL	853019	850807	80	20	40
KRL	853020	850807	80	20	40
KRL	853021	850807	80	20	40
KRL	853022	850807	80	20	40
KRL	853023	850807	80	20	40
KRL	853024	850807	80	20	40
KRL	853025	850807	80	20	40
KRL	853026	850807	80	20	40
KRL	853027	850807	80	20	40
KRL	853028	850807	80	20	40
KRL	853029	850807	80	20	40
KRL	853030	850807	80	20	40
KRL	853031	850807	80	20	40
KRL	853032	850807	80	20	40
KRL	853033	850807	80	20	40
KRL	853034	850807	80	20	40
KRL	853036	850807	80	20	40
KRL	853037	850807	80	20	40
KRL	853038	850807	80	20	40
KRL	853039	850807	80	20	40
KRL	853040	850807	80	20	40
KRL	853044	850807	80	20	40
KRL	853048	850807	80	20	40
KRL	853049	850807	80	20	40
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KRL	853056	850807	80	20	40
KRL	853057	850807	80	20	40
KRL	853058	850807	80	20	40
KRL	853059	850807	80	20	40
KRL	853060	850807	80	20	40
KRL	853061	850807	80	20	40
KRL	853062	850807	80	20	40
KRL	853063	850807	80	20	40
KRL	853064	850807	80	20	40
KRL	853065	850807	80	20	40
KRL	853066	850807	80	20	40
KRL	853067	850807	80	20	40
KRL	853068	850807	80	20	40
KRL	853069	850807	80	20	40
KRL	853070	850807	80	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	853071	850807	80	20	40
KRL	853072	850807	80	20	40
KRL	853073	850807	80	20	40
KRL	853075	850807	80	20	40
KRL	853076	850807	80	20	40
KRL	853077	850807	80	20	40
KRL	853078	850807	80	20	40
KRL	853079	850807	80	20	40
KRL	853080	850807	80	20	40
KRL	853081	850807	80	20	40
KRL	853082	850807	80	20	40
KRL	853083	850807	80	20	40
KRL	853084	850807	80	20	40
KRL	853085	850807	80	20	40
KRL	853086	850807	80	20	40
KRL	853087	850807	80	20	40
KRL	853088	850807	80	20	40
KRL	853089	850807	80	20	40
KRL	853090	850807	80	20	40
KRL	853091	850807	80	20	40
KRL	853092	850807	80	20	40
KRL	853093	850807	80	20	40
KRL	853094	850807	80	20	40
KRL	853095	850807	80	20	40
KRL	853096	850807	80	20	40
KRL	853097	850807	80	20	40
KRL	853098	850807	80	20	40
KRL	853099	850807	80	20	40
KRL	853100	850807	80	20	40
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KRL	853102	850807	80	20	40
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KRL	853111	850807	80	20	40
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KRL	853114	850807	80	20	40
KRL	853115	850807	80	20	40
KRL	853116	850807	80	20	40
KRL	853117	850807	80	20	40
KRL	853118	850807	80	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	902929	860506	AGC	20	40
KRL	902930	860506	AGC	20	40
KRL	902931	860506	AGC	20	40
KRL	902932	860506	AGC	20	40
KRL	902933	860506	AGC	20	40
KRL	902934	860506	AGC	20	40
KRL	902935	860506	AGC	20	40
KRL	902936	860506	AGC	20	40
KRL	902937	860506	AGC	20	40
KRL	902938	860506	AGC	20	40
KRL	902949	860506	AGC	20	40
KRL	902950	860506	AGC	20	40
KRL	902951	860506	AGC	20	40
KRL	902952	860506	AGC	20	40
KRL	902953	860506	AGC	20	40
KRL	902954	860506	AGC	20	40
KRL	902955	860506	AGC	20	40
KRL	902956	860506	AGC	20	40
KRL	902957	860506	AGC	20	40
KRL	902958	860506	AGC	20	40
KRL	902983	860506	AGC	20	40
KRL	902984	860506	AGC	20	40
KRL	902985	860506	AGC	20	40
KRL	902986	860506	AGC	20	40
KRL	902987	860506	AGC	20	40
KRL	902988	860506	AGC	20	40
KRL	902989	860506	AGC	20	40
KRL	902990	860506	AGC	20	40
KRL	902991	860506	AGC	20	40
KRL	902992	860506	AGC	20	40
KRL	902993	860506	AGC	20	40
KRL	902994	860506	AGC	20	40
KRL	902995	860506	AGC	20	40
KRL	902996	860506	AGC	20	40
KRL	902997	860506	AGC	20	40
KRL	902998	860506	AGC	20	40
KRL	902999	860506	AGC	20	40
KRL	903000	860506	AGC	20	40
KRL	903401	860506	AGC	20	40
KRL	903402	860506	AGC	20	40
KRL	903403	860506	AGC	20	40
KRL	903404	860506	AGC	20	40
KRL	903405	860506	AGC	20	40
KRL	903406	860506	AGC	20	40
KRL	903407	860506	20	40	40
KRL	903408	860506	20	40	40
KRL	903439	860506	20	40	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	868683	860314	AGC	20	40
KRL	868684	860314	AGC	20	40
KRL	868685	860314	AGC	20	40
KRL	868686	860314	AGC	20	40
KRL	868687	860314	AGC	20	40
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KRL	868689	860314	AGC	20	40
KRL	868690	860314	AGC	20	40
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KRL	868692	860314	AGC	20	40
KRL	868693	860314	AGC	20	40
KRL	868694	860314	AGC	20	40
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KRL	868696	860314	AGC	20	40
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KRL	868757	860314	AGC	20	40
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KRL	868760	860314	AGC	20	40
KRL	868761	860314	AGC	20	40
KRL	868762	860314	AGC	20	40
KRL	868763	860314	AGC	20	40
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KRL	868765	860314	AGC	20	40
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KRL	868769	860314	AGC	20	40
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KRL	868773	860314	AGC	20	40
KRL	868774	860314	AGC	20	40
KRL	868775	860314	AGC	20	40
KRL	868776	860314	AGC	20	40
KRL	868811	860314	20	40	40
KRL	868812	860314	20	40	40
KRL	868813	860314	AGC	20	40
KRL	868814	860314	AGC	20	40
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KRL	868816	860314	AGC	20	40
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KRL	868818	860314	AGC	20	40
KRL	868819	860314	AGC	20	40
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KRL	868821	860314	AGC	20	40
KRL	868822	860314	AGC	20	40
KRL	868823	860314	AGC	20	40
KRL	868824	860314	AGC	20	40
KRL	868825	860314	AGC	20	40
KRL	868826	860314	AGC	20	40
KRL	868827	860314	AGC	20	40
KRL	868828	860314	AGC	20	40
KRL	868829	860314	AGC	20	40
KRL	868830	860314	AGC	20	40
KRL	868831	860314	AGC	20	40
KRL	868832	860314	AGC	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	868833	860314	AGC	20	40
KRL	868834	860314	AGC	20	40
KRL	868835	870314	AGC	20	40

REPORT OF WORK CLAIMLIST - MARCH 11, 1988

MDIV	CLAIM	RECDATE	WKPREVFILED	AMTWKDUE	WKFILED THIS REPORT
KRL	868719	860409	AGC	20	40
KRL	868720	860409	AGC	20	40
KRL	868721	860409	AGC	20	40
KRL	868722	860409	AGC	20	40
KRL	868723	860409	AGC	20	40
KRL	868724	860409	AGC	20	40
KRL	868725	860409	AGC	20	40
KRL	868726	860409	AGC	20	40
KRL	868727	860409	AGC	20	40
KRL	868728	860409	20	40	40
KRL	868729	860409	20	40	40
KRL	868730	860409	AGC	20	40
KRL	868731	860409	AGC	20	40
KRL	868732	860409	20	40	40
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KRL	868734	860409	20	40	40
KRL	868735	860409	20	40	40
KRL	868805	860409	AGC	20	40
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KRL	868807	860409	AGC	20	40
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KRL	868874	860409	AGC	20	40
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KRL	868876	860409	AGC	20	40
KRL	868877	860409	AGC	20	40
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KRL	868880	860409	AGC	20	40
KRL	868881	860409	AGC	20	40
KRL	868882	860409	AGC	20	40
KRL	868883	860409	AGC	20	40
KRL	868884	860409	AGC	20	40
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KRL	890542	860409	AGC	20	40
KRL	890543	860409	AGC	20	40
KRL	890544	860409	20	40	40
KRL	890545	860409	20	40	40
KRL	890546	860409	20	40	40
KRL	890569	860409	AGC	20	40
KRL	890570	860409	AGC	20	40
KRL	890571	860409	AGC	20	40
KRL	890572	860409	AGC	20	40
KRL	890573	860409	AGC	20	40
KRL	890574	860409	AGC	20	40
KRL	890575	860409	AGC	20	40
KRL	890576	860409	AGC	20	40
KRL	890577	860409	AGC	20	40
KRL	890578	860409	AGC	20	40

91°45'

91°30'

51°45'

51°37'30"

42' 41' 40' 39' 38' 37' 36' 35' 34' 33' 32' 31'

44' 43' 42' 41' 40' 39' 38'

Cat Lake

Otoskwin R.

Baggy Lake

Morris River

Otoskwin River

Saddle Lake

CAT LAKE G-1986

SADDLE LAKE G-2197

STOUGHTON LAKE G-2228

LEGEND

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

DISPOSITION OF CROWN LANDS

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

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

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File

Feb. 17/87

SCALE: 1 INCH = 40 CHAINS

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

AREA

BAGGY LAKE

M.N.R. ADMINISTRATIVE DISTRICT

SIOUX LOOKOUT

MINING DIVISION

PATRICIA

LAND TITLES / REGISTRY DIVISION

KENORA (PATRICIA PORTION)

Ministry of Natural Resources — Land Management Branch — Ontario

Date FEBRUARY, 1984

Number G-1945

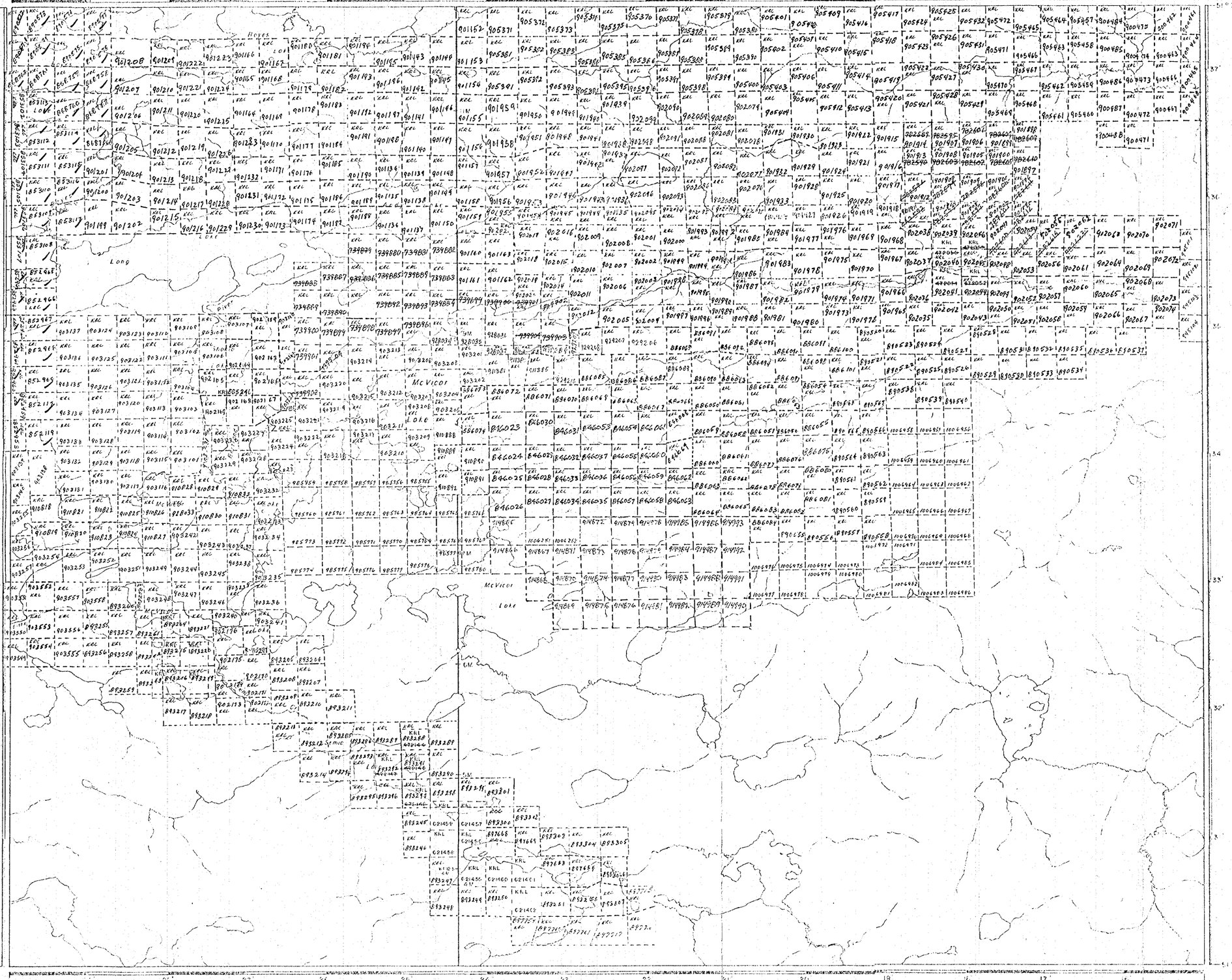
516913

SADDLE LAKE G-2197

STOUGHTON LAKE G-2228

CANNON LAKE G-1978

MEEN LAKE G-2122



LEGEND

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

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LEASE, SURFACE & MINING RIGHTS	
" SURFACE RIGHTS ONLY	
" MINING RIGHTS ONLY	
LICENCE OF OCCUPATION	
ORDER IN COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 1913 VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 62, SUBSEC. 1.

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File

Feb 9/87
Jun 30/87
Aug 5/87

PATRICIA MINING DIV.
RECEIVED
1987 MAR 22
A.M. 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 P.M.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 500 1000 2000 KM

AREA

McVICAR LAKE

M.N.R. ADMINISTRATIVE DISTRICT
SIOUX LOOKOUT
MINING DIVISION
PATRICIA
LAND TITLES / REGISTRY DIVISION
KENORA (PATRICIA PORTION)

Ministry of Natural Resources — Land Management Branch
Ontario

Date JANUARY, 1984

Number G-2121

BAGGY LAKE G-1945

KAPIKIK LAKE G-2080

McVICAR LAKE G-2121

ZIONZ RIVER G-2280

91° 45'

91° 30'

51° 37' 30"

51° 30'

42' 41' 40' 39' 38' 37' 36' 35' 34' 33' 32' 31'

37 36 35 34 33 32 31

Saddle Creek

Briggs L.

Bowell L.

Bearfoot L.

Bertrand Lake

Gitche Lake

Stoughton Lake

Gitche River

Stoughton Creek

LEGEND

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

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◓
" , MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◨
" , MINING RIGHTS ONLY	◧
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	(R)
CANCELLED	⊗
SAND & GRAVEL	(S)

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

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

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

Description	Order No.	Date	Disposition	File

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 300 1 KM 2000 (2 KM)

AREA **STOUGHTON LAKE**

M.N.R. ADMINISTRATIVE DISTRICT
SIOUX LOOKOUT

MINING DIVISION
PATRICIA

LAND TITLES / REGISTRY DIVISION
KENORA (PATRICIA PORTION)

Ontario Ministry of Natural Resources — Land Management Branch

Date FEBRUARY, 1984

Number **G-2228**

AOI 1

AOI 3

NOSE LAKE

LONG LAKE

BOWEN LAKE

PATENTED GROUND

SOIL SURVEY

OVERBURDEN DRILL SURVEY

LEGEND

6 FELSIC INTRUSIVES
- a GRANITE
- b QUARTZ MONZONITE, GRANODIORITE
- c SYENODIORITE
- d FELDSPAR PORPHYRY

5 MAFIC INTRUSIVES
- a GABBRO
- b DIORITE
- c ANORTHOSITE

4 METASEDIMENTS
- a GREYWACKE
- b SILTSTONE, ARGILLITE

3 FELSIC METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF

2 INTERMEDIATE METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF
- c SPHERULITIC LAVA
- d INTERCALATED MAFIC AND FELSIC LAVA

1 MAFIC METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF
- c TUFF BRECCIA, VOLCANIC BRECCIA
- d PILLOW LAVA
- e COARSE GRAINED LAVA
- f AMPHIBOLITE

MIS(IF) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

- OUTCROP
- BEDDING
- FOLIATION
- SHEAR
- GNEISSOSITY
- GEOLOGIC CONTACT
- FOLDING WITH PLUNGE
- FAULT
- LINEAMENT
- MAGNETIC STRUCTURE
- SAMPLE/DESCRIPTION
- ANOMALOUS SAMPLE WITH ASSAY (ROCK)
- VEGETATION BOUNDARY
- VEGETATION TYPE
- BOULDER
- CREEK WITH DIRECTION OF FLOW
- TOPOSRAPHIC INCREASE/ DECREASE
- CLAIMPOST
- CLAIMBOUNDARY AND —NUMBER

- ANOMALOUS (AU) SOIL ASSAY
- ANOMALOUS (AU) OVERBURDEN DRILL ASSAY

LOCATION MAP

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

COMPILATION MAP

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov 80	S.W.					1 OF 5

0 125 250 375 METRES
SCALE 1:5000

230

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

COMPILATION MAP
2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
NOV/84	S.W.			53-O/12		2 OF 5

SCALE 1:5000

LEGEND

6 FELSIC INTRUSIVES
- a GRANITE
- b QUARTZ MONZONITE, GRANODIORITE
- c SYENODIORITE
- d FELDSPAR PORPHYRY

5 MAFIC INTRUSIVES
- a GABBRO
- b DIORITE
- c ANORTHOSITE

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- d INTERCALATED MAFIC AND FELSIC LAVA

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- c TUFF BRECCIA, VOLCANIC BRECCIA
- d PILLOW LAVA
- e COARSE GRAINED LAVA
- f AMPHIBOLITE

MIS(IF) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

- OUTCROP
- BEDDING
- FOLIATION
- SHEAR
- GNEISSOSITY
- GEOLOGIC CONTACT
- FOLDING WITH PLUNGE
- FAULT
- LINEAMENT
- MAGNETIC STRUCTURE
- SAMPLE/DESCRIPTION
- ANOMALOUS SAMPLE WITH ASSAY
- VEGETATION BOUNDARY
- VEGETATION TYPE
- BOULDER
- CREEK WITH DIRECTION OF FLOW
- TOPOGRAPHIC INCREASE/ DECREASE
- CLAIMPOST
- CLAIMBOUNDARY AND — NUMBER

LOCATION MAP

LONG LAKE

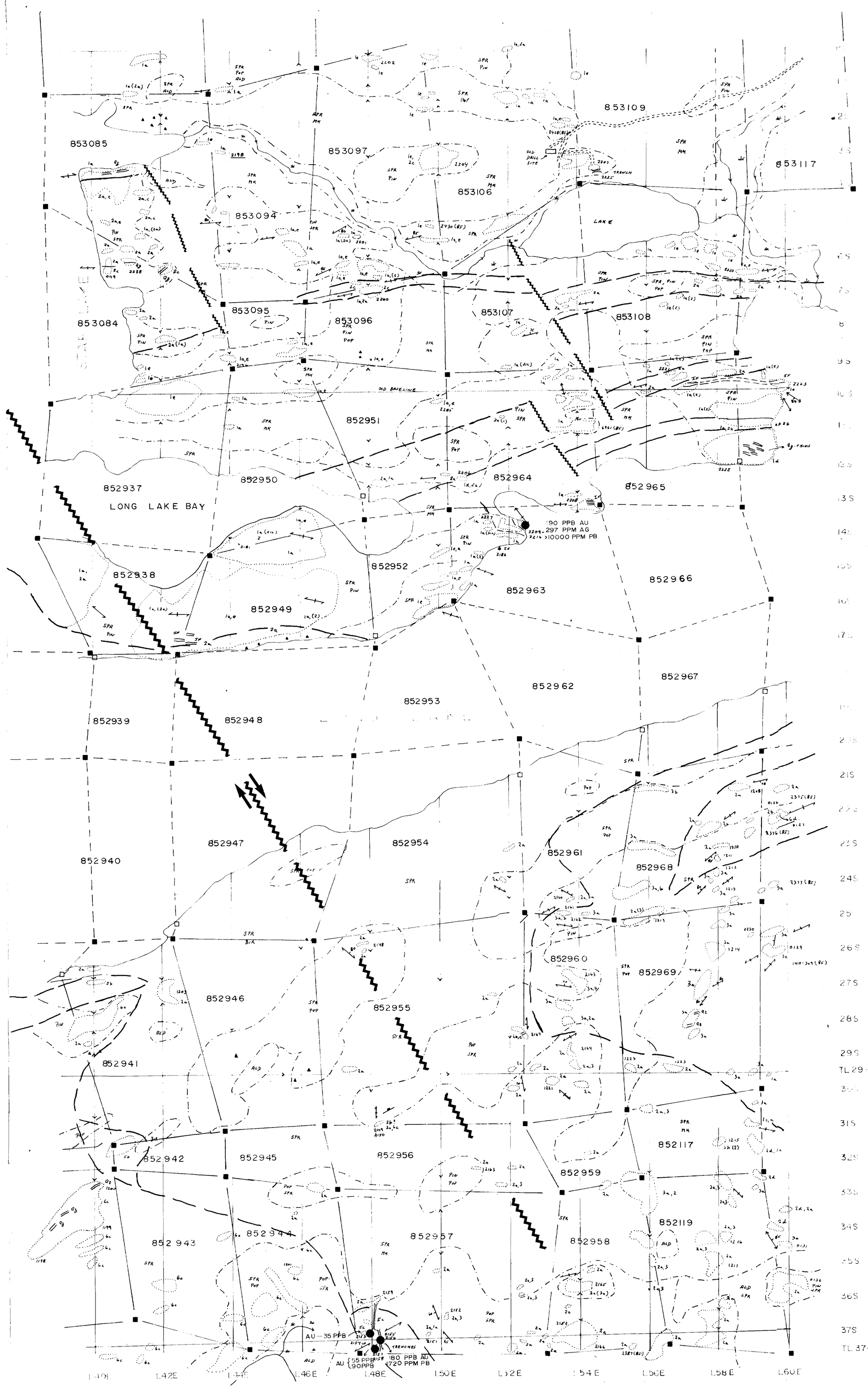
LONG LAKE

LIULL LAKE

Portage

240

L2W L0 L2E L4E L6E L8E L10E L12E L14E L16E L18E L20E L22E L24E L26E L28E L30E L32E L34E L36E L38E L40E



LEGEND

6 FELSIC INTRUSIVES
- a GRANITE
- b QUARTZ MONZONITE, GRANODIORITE
- c SYENODIORITE
- d FELDSPAR PORPHYRY

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- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF
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- f AMPHIBOLITE

MIS(IF) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

- OUTCROP
- BEDDING
- FOLIATION
- SHEAR
- GNEISSOSITY
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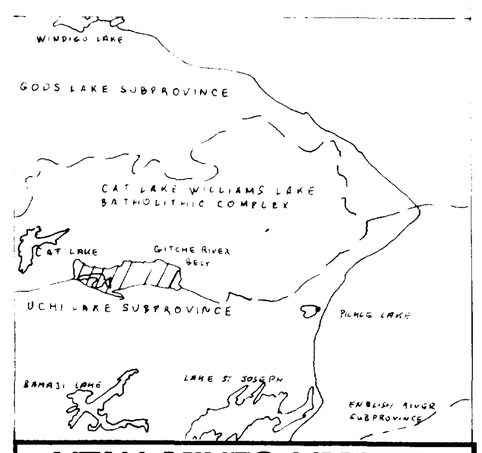
- FOLDING WITH PLUNGE
- FAULT
- LINEAMENT
- MAGNETIC STRUCTURE
- SAMPLE/DESCRIPTION
- ANOMALOUS SAMPLE WITH ASSAY
- VEGETATION BOUNDARY
- VEGETATION TYPE
- BOULDER
- CREEK WITH DIRECTION OF FLOW
- TOPOGRAPHIC INCREASE/ DECREASE
- CLAIMPOST
- CLAIMBOUNDARY AND — NUMBER



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

COMPILATION MAP

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov/86	S.W			52-0/12		3 OF 5

0 125 250 375 METERS
SCALE : 1:5000

52012NE0001 2.11008 BAGGY LAKE

SABBLE LAKE

POT LAKE

BOYES LAKE

868829 868830 868831 868832 868833 868834 868835 868805 868771 868770 868769 868768 868767 868766 868765 868764 868763 868762 868761 868759 868758 868757 868760 868756 868871 868878 868874 868876 868875 868879 868880 868881 868882 868883 868884 868885 890569 890572 890573 890576 890577 890574 890575 890578 890570 890571 853077 853066 853078 853065 853082 853054 853067 853076 853079 853088 853091 853100 853103 853112 853114 853052 853055 853064 853075 853080 853087 853092 853104 853111 853115 853051 853056 853063 853068 853086 853093 853098 853105 853116 853110 853050 853069 853062 853118 853081 853106 853109 853117 853113 853101 853102 853089 853090

35 PPB AU
530 PPM CU
1280 PPM ZN

TL 25 N

BL 0

L14E L16E L18E L20E L22E L24E L26E L28E L30E L32E L34E L36E L38E L40E L42E L44E L46E L48E L50E L52E L54E L56E L58E L60E

35 N 34 N 33 N 32 N 31 N 30 N 29 N 28 N 27 N 26 N 24 N 23 N 22 N 21 N 10 N 9 N 8 N 7 N 6 N 5 N 4 N 3 N 2 N 1 N

LEGEND

- 6 FELSIC INTRUSIVES
  - a GRANITE
  - b QUARTZ MONZONITE, GRANODIORITE
  - c SYENODIORITE
  - d FELDSPAR PORPHYRY
- 5 MAFIC INTRUSIVES
  - a GABBRO
  - b DIORITE
  - c ANORTHOSITE
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  - a GREYWACKE
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  - e COARSE GRAINED LAVA
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(SIL) LOCAL SILICIFICATION

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- BEDDING
- FOLIATION
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- GNEISSOSITY
- GEOLOGIC CONTACT
- FOLDING WITH PLUNGE
- FAULT
- LINEAMENT
- MAGNETIC STRUCTURE
- SAMPLE/DESCRIPTION
- ANOMALOUS SAMPLE WITH ASSAY
- VEGETATION BOUNDARY
- VEGETATION TYPE
- BOULDER
- CREEK WITH DIRECTION OF FLOW
- TOPOGRAPHIC INCREASE/ DECREASE
- CLAIMPOST
- CLAIMBOUNDARY AND — NUMBER

LOCATION MAP

WINDIGO LAKE
GOOS LAKE SUBPROVINCE
CAT LAKE-WILLIAMS LAKE BATHOLITHIC COMPLEX
CAT LAKE
Gitawa River
WEM-I-LAKE SUBPROVINCE
PEMLE LAKE
SAMAL LAKE
LAKE ST. JOSEPH
BALSILLIE RIVER SUBPROVINCE

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

COMPILATION MAP

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
NOV/84	SW			52-O/12		4 OF 6

SCALE 1:5000 1" = 400' METER

5201260001 2.11008 BAGGY LAKE

260

LEGEND

6 FELSIC INTRUSIVES
- a GRANITE
- b QUARTZ MONZONITE, GRANODIORITE
- c SYENODIORITE
- d FELDSPAR PORPHYRY

5 MAFIC INTRUSIVES
- a GABBRO
- b DIORITE
- c ANORTHOSITE

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- b TUFF, LAPILLI TUFF
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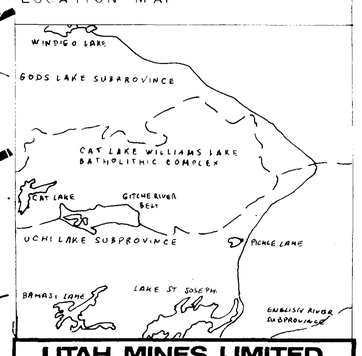
- d PILLOW LAVA
- e COARSE GRAINED LAVA
- f AMPHIBOLITE

MIS(IF) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

OUTCROP
BEDDING
FOLIATION
SHEAR
GNEISSOSITY
GEOLOGIC CONTACT
FOLDING WITH PLUNGE
FAULT
LINEAMENT
MAGNETIC STRUCTURE
SAMPLE/DESCRIPTION
ANOMALOUS SAMPLE WITH ASSAY
VEGETATION BOUNDARY
VEGETATION TYPE
BOULDER
CREEK WITH DIRECTION OF FLOW
TOPOGRAPHIC INCREASE/ DECREASE
CLAIMPOST
CLAIMBOUNDARY AND —NUMBER

ANOMLOUS (AU) SOIL ASSAY
ANOMALOUS (AU) OVERBURDEN DRILL ASSAY

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

COMPILATION MAP
2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov '84	S.W.			52-O/12		5 OF 5

0 125 250 375 METER
SCALE 1:5000

NOSE LAKE

LONG LAKE

BOWEN LAKE

BLO 1S 2S 3S 4S 5S 6S 7S 8S 9S 10S 11S 12S

TL13S 14S 15S 16S 17S 18S 19S 20S 21S 22S 23S 24S 25S 26S 27S 28S 29S TL29·50S 30S 31S 32S 33S 34S 35S 36S 37S TL3750S

L40W L38W L36W L34W L32W L30W L28W L26W L24W L22W L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0

Note:
Samples 2338 - 2377 are all Humus samples (A_o)

LEGEND

A_o — HUMUS SAMPLE

B_1 — SOIL HORIZON SAMPLE

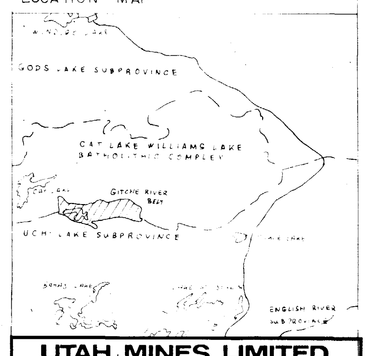
1024 — SAMPLE NUMBER

● — AU(PPB) > 20 A_o, > 35 B_1

△ — 15 < AU(PPB) < 20 A_o, 6 < < 35 B_1

□ — AU(PPB) < 15 A_o, < 6 B_1

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

SOIL GEOCHEMISTRY

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov 84	S.W.	"		52-D/12		1 OF 3

0 125 250 375 METER
SCALE 1:5000

52012NE0001 2.11008 BAGGY LAKE

280

BL0
1S
2S
3S
4S
5S
6S
7S
8S
9S
10S
11S
12S
TL 13S
14S
15S
16S
17S
18S
19S
20S
21S
22S
23S
24S
25S
26S
27S
28S
TL29·50S
30S
31S
32S
TL33S
34S
35S
36S
37S
TL37·50S

L2W L0 L2E L4E L6E L8E L10E L12E L14E L16E L18E L20E L22E L24E L26E L28E L30E L32E L34E L36E L38E L40E

STAR LAKE

LONG LAKE

LONG LAKE

LULL LAKE

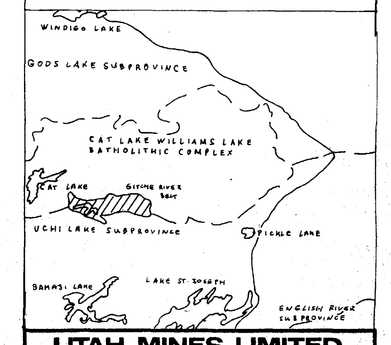
LEGEND

Ao — HUMUS SAMPLE

B1 — SOIL HORIZON SAMPLE

1024 — SAMPLE NUMBER

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

SOIL GEOCHEMISTRY

2.11008

DATE	DRAWN	CHECKED	REVISED	NTS	FILE	MAP
Nov/84	S.W.			52-O/12		2 of 3

0 125 250 375 METER
SCALE 1:5000

290

41 N
40 N
39 N
38 N
37 N
36 N
35 N
34 N
33 N
32 N
31 N
30 N
29 N
28 N
27 N
26 N
TL 25 N
24 N
23 N
22 N
21 N
20 N
19 N
18 N
17 N
L 16 N
15 N
14 N
13 N
12 N
11 N
10 N
9 N
8 N
7 N
6 N
5 N
4 N
3 N
2 N
1 N
BL 0

L22W L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0 L2E L4E L6E L8E L10E L12E

SADDLE LAKE

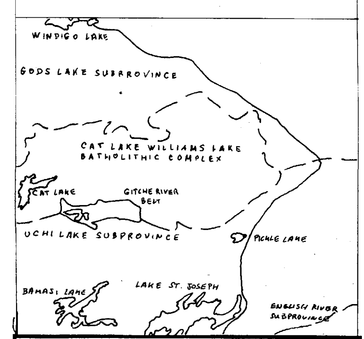
LEGEND

A_0 — HUMUS SAMPLE

B_1 — SOIL HORIZON SAMPLE

1024 — SAMPLE NUMBER

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY
SOIL GEOCHEMISTRY
2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov '86	S.V.			52-O/12		3 OF 3

0 125 250 375 METRES
SCALE: 1:2500

52012NE0001 2.11008 BAGGY LAKE

300

BL0
1S
2S
3S
4S
5S
6S
7S
8S
9S
10S
11S
12S
TL13S
14S
15S
16S
17S
18S
19S
20S
21S
22S
23S
24S
25S
26S
27S
28S
29S
TL29·50S
30S
31S
32S
33S
34S
35S
36S
37S
TL37·50S

L40W L38W L36W L34W L32W L30W L28W L26W L24W L22W L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0

NOSE LAKE

LONG LAKE

BOWEN LAKE

LEGEND

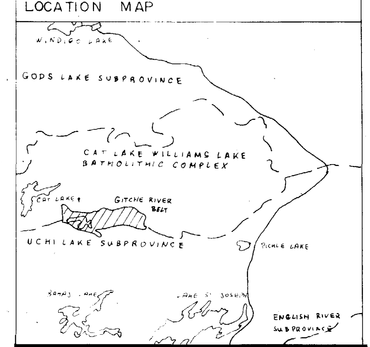
TL0106 — SAMPLE NUMBER

● — AU(PPB) > 9

△ — 3 < AU(PPB) < 9

□ — AU(PPB) < 3

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY
OVERBURDEN DRILL SURVEY
2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov 84	S W			52-0/12		1 OF 1

0 125 250 375 METER
SCALE : 1:5000

52012NE0001 2.11008 BAGGY LAKE

41 N
40N
39 N
38 N
37 N
36 N
35 N
34 N
33N
32 N
31N
30N
29 N
28 N
27 N
26N
TL 25 N
24 N
23 N
22 N
21 N
20N
19 N
18 N
17 N
TL 16 N
15N
14 N
13N
12 N
11 N
10 N
9N
8 N
7N
6 N
5 N
4N
3N
2 N
1 N
BL 0

L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0 L2E L4E L6E L8E L10E L12E

SADDLE LAKE

N

LEGEND

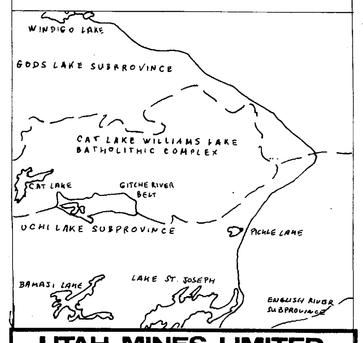
TL0106 — SAMPLE NUMBER

● — AU(PPB) > 9

△ — 3 < AU(PPB) < 9

□ — AU(PPB) < 3

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

OVERBURDEN DRILL SURVEY

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov '84	L. S.W.			52-O/12		2 OF 2

0 125 250 375 METER
SCALE: 1:5000

52012NE0001 2.11008 BAGGY LAKE

BLO
1S
2S
3S
4S
5S
6S
7S
8S
9S
10S
11S
12S
TL13S
14S
15S
16S
17S
18S
19S
20S
21S
22S
23S
24S
25S
26S
27S
28S
29S
TL29·50S
30S
31S
32S
33S
34S
35S
36S
37S
TL3750S

L40W L38W L36W L34W L32W L30W L28W L26W L24W L22W L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0

PATENTED GROUND

BOWEN LAKE

NOSE LAKE

LONG LAKE

868690 868689 868687 868688 868686 868685 868683 868684

852982 852975 852974 852983 852992 853001 852973 852984 853002 852991 852972 852985 852990 853003 852971 852986 852989 852970 852987 852988

902989 902988 902997 902990 902998 902987

903408 903404 903403 903402 903439 903405 903406 903407 903401 903000

902999 902991 902996 902995 902992 902985 902956 902953 902938 902955 902954 902937 902936

902993 902984 902957 902949 902994 902983 902958 902951 902950

175 PPB AU
25 PPB AU
90 PPB AU
815 PPB AU 038 OZ/T
1820 PPM CU 1600 PPM ZN
AU-60 PPB
AU-35 PPB
1000 PPB AU 038 OZ/T

LEGEND

6 FELSIC INTRUSIVES
- a GRANITE
- b QUARTZ MONZONITE, GRANODIORITE
- c SYENODIORITE
- d FELDSPAR PORPHYRY

5 MAFIC INTRUSIVES
- a GABBRO
- b DIORITE
- c ANORTHOSITE

4 METASEDIMENTS
- a GREYWACKE
- b SILTSTONE, ARGILLITE

3 FELSIC METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF

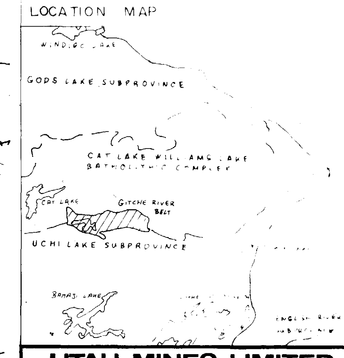
2 INTERMEDIATE METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF
- c SPHERULITIC LAVA
- d INTERCALATED MAFIC AND FELSIC LAVA

1 MAFIC METAVOLCANICS
- a MASSIVE AND FOLIATED LAVA
- b TUFF, LAPILLI TUFF
- c TUFF BRECCIA, VOLCANIC BRECCIA
- d PILLOW LAVA
- e COARSE GRAINED LAVA
- f AMPHIBOLITE

MIS(IF) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

OUTCROP
BEDDING
FOLIATION
SHEAR
GNEISSOSITY
GEOLOGIC CONTACT
FOLDING WITH PLUNGE
FAULT
LINEAMENT
MAGNETIC STRUCTURE
SAMPLE/DESCRIPTION
ANOMALOUS SAMPLE WITH ASSAY
VEGETATION BOUNDARY
VEGETATION TYPE
BOULDER
CREEK WITH DIRECTION OF FLOW
TOPOGRAPHIC INCREASE/ DECREASE
CLAIMPOST
CLAIMBOUNDARY AND — NUMBER

LOCATION MAP



UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

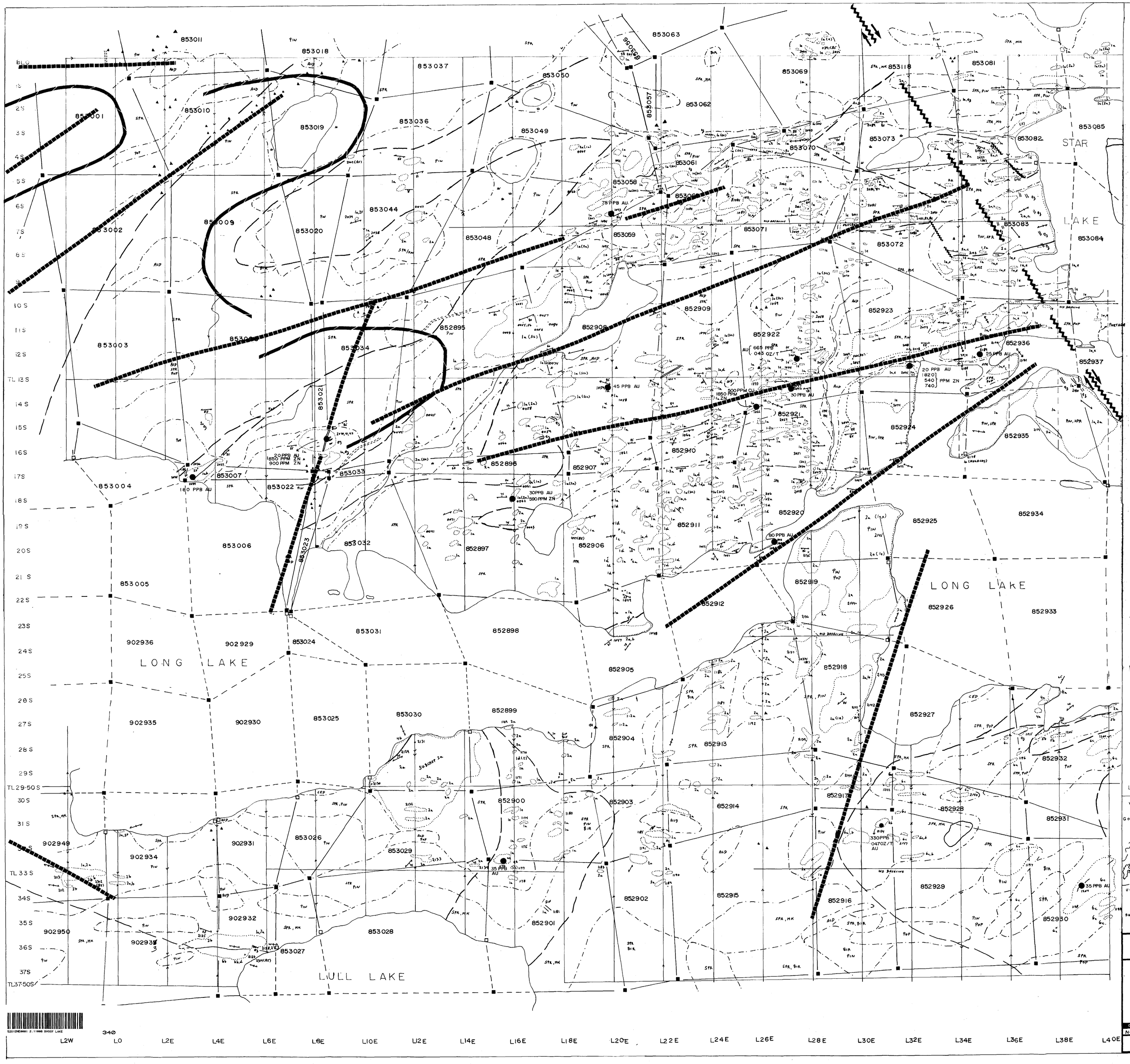
LONG LAKE PROPERTY

GEOLOGY

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov 80	S.W.			52-O/12		1 OF 5

0 125 250 375 METER
SCALE 1:5000



LEGEND

- 6 FELSIC INTRUSIVES
  - a GRANITE
  - b QUARTZ MONZONITE, GRANODIORITE
  - c SYENODIORITE
  - d FELDSPAR PORPHYRY
- 5 MAFIC INTRUSIVES
  - a GABBRO
  - b DIORITE
  - c ANORTHOSITE
- 4 METASEDIMENTS
  - a GREYWACKE
  - b SILTSTONE, ARGILLITE
- 3 FELSIC META/VOLCANICS
  - a MASSIVE AND FOLIATED LAVA
  - b TUFF, LAPILLI TUFF
- 2 INTERMEDIATE METAVOLCANICS
  - a MASSIVE AND FOLIATED LAVA
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(MIS(IF)) MAGNETIC IRONSTONE
(SIL) LOCAL SILICIFICATION

- OUTCROP
- BEDDING
- FOLIATION
- SHEAR
- GNEISSOSITY
- GEOLOGIC CONTACT
- FOLDING WITH PLUNGE
- FAULT
- LINEAMENT
- MAGNETIC STRUCTURE
- SAMPLE/DESCRIPTION
- ANOMALOUS SAMPLE WITH ASSAY
- VEGETATION BOUNDARY
- VEGETATION TYPE
- BOULDER
- CREEK WITH DIRECTION OF FLOW
- TOPOGRAPHIC INCREASE/ DECREASE
- CLAIMPOST
- CLAIMBOUNDARY AND — NUMBER

LOCATION MAP

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

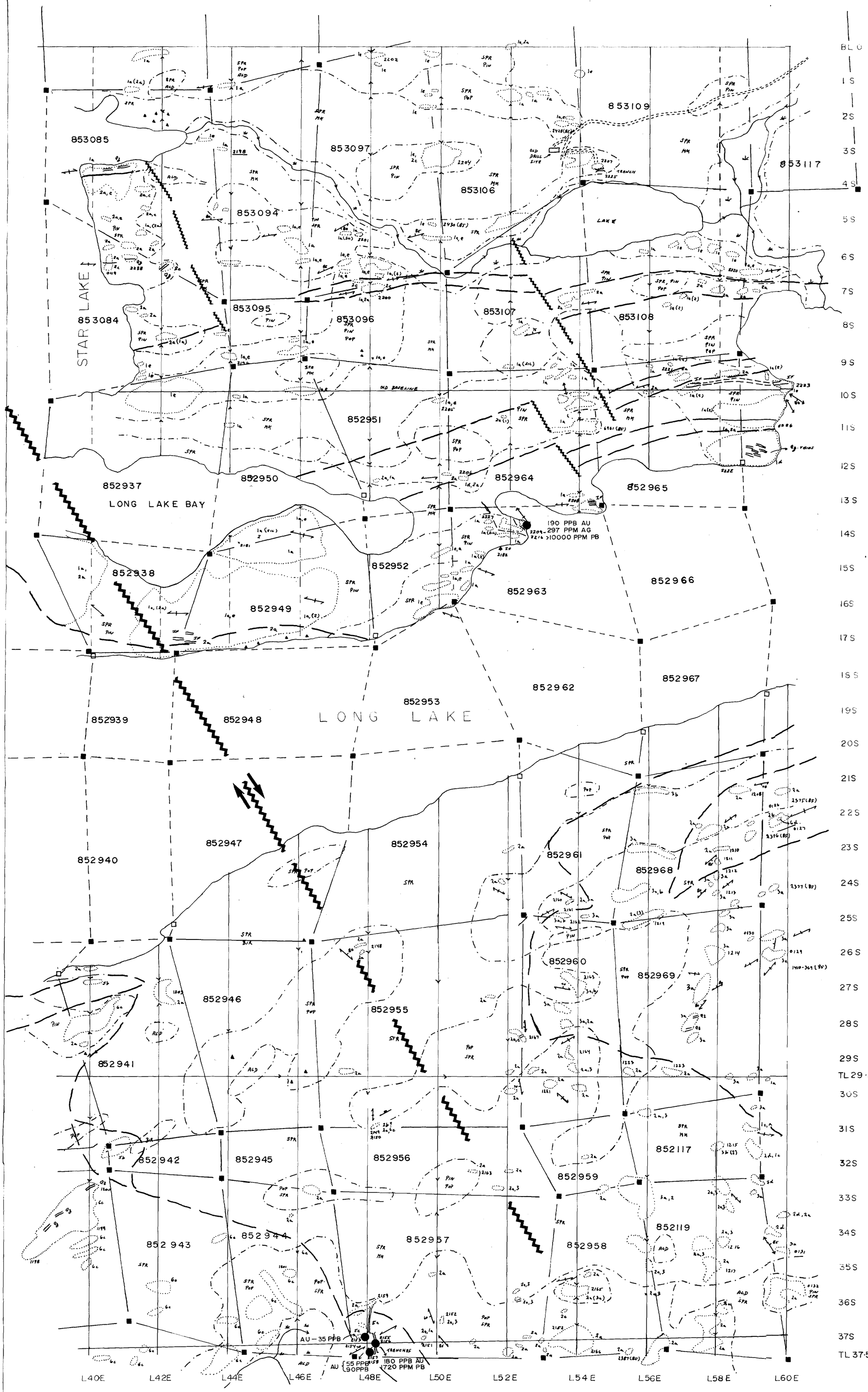
GEOLOGY

2.11008

DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov/86	S.W.			52-0/13		2 OF 5

SCALE 1:5000

52012NE0001 2.11008 BAGGY LAKE



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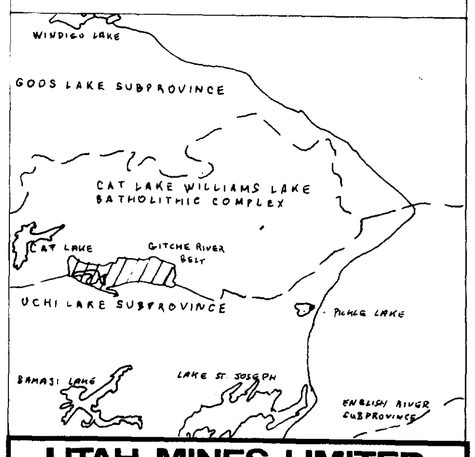

UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA

LONG LAKE PROPERTY

GEOLOGY

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DATE	DRAWN	CHECKED	REVISED	N.T.S.	FILE	MAP
Nov/86	S.W			52-O/12		3 OF 5

0 125 250 375 METERS
SCALE : 1:5000

52012NE0001 2.11008 BAGGY LAKE


SADDLE LAKE
POT LAKE
BOYES LAKE
25 PPB AU
530 PPM CU
1280 PPM ZN
LEGEND
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LOCATION MAP
WINDIGO LAKE
GODS LAKE SUBPROVINCE
CAT LAKE
GITCHE RIVER BELT
UCHI LAKE SUBPROVINCE
PICKLE LAKE
BAMAJI LAKE
LAKE ST. JOSEPH
ENGLISH RIVER SUBPROVINCE
UTAH MINES LIMITED
EXPLORATION DEPARTMENT
TORONTO ONTARIO CANADA
LONG LAKE PROPERTY
GEOLOGY
2.11008
DATE Nov/86
DRAWN S.W.
CHECKED
REVISED
N.T.S 52-O/12
FILE
MAP 4 OF 5
0 125 250 375 METER
SCALE : 1: 5000
360

SADDLE LAKE

868811 868818 868814 868817 868812 868819 868822 868823 868826 868827 868815 868816 868820 868821 868735 868824 868828 868825 868734 868731 868730 868727 868726 868723 868722 868719 868733 868732 868729 868728 868725 868724 868721 868720 890545 890544 890541 868810 868809 868808 868807 868806 890546 890543 890542 868775 868774 868773 868772 868776 868695 868696 853040 852978 852996 852997 853014 853015 852977 852995 852994 852999 853013 853016 853039 853012 853017 853038 852981 852976 853000 853011 853018 853037 868694 868693 868692 868691 852982 852993 852975 868689

85 PPB AU 30 PPB AU 4300 PPM ZN 40 PPB AU 95 PPB AU 1050 PPM ZN

41 N 40 N 39 N 38 N 37 N 36 N 35 N 34 N 33 N 32 N 31 N 30 N 29 N 28 N 27 N 26 N TL 25 N 24 N 23 N 22 N 21 N 20 N 19 N 18 N 17 N TL 16 N 15 N 14 N 13 N 12 N 11 N 10 N 9 N 8 N 7 N 6 N 5 N 4 N 3 N 2 N 1 N BL 0

L22W L20W L18W L16W L14W L12W L10W L8W L6W L4W L2W L0 L2E L4E L6E L8E L10E L12E

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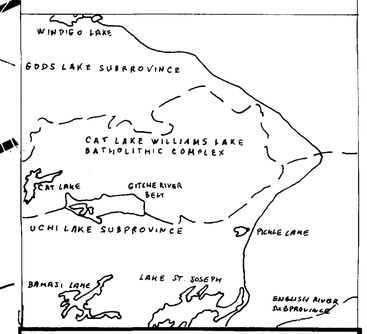

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LONG LAKE PROPERTY

GEOLOGY

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