



REPORT  
 ON A  
 GEOLOGICAL SURVEY  
 OF THE  
 ALCOCK OPTION CLAIMS,  
 HIGH LAKE, EWART TOWNSHIP,  
 KENORA MINING DIVISION  
 FOR  
 SELCO EXPLORATION COMPANY LIMITED

The following report describes results of a geological survey performed during June and July, 1961, for Selco Exploration Company Limited, Toronto 1, Ontario, on the following 18 claims in Ewart Township, Kenora Mining Division:-

- K-28999 to K-29010 inclusive
- K-29013
- K-32107
- K-32109
- K-30734 to K-30736 inclusive

The claims are held by the above-named firm under terms of an option agreement with C. A. Alcock of Kenora, Ontario.

Location and Access:-

The property is on the north shore of High Lake, thirty miles west of the town of Kenora, Ontario, and one mile east of the Manitoba-Ontario boundary. The north boundary of the property is approximately three-quarters of a mile south of the Trans-Canada highway and the Trans-Canada natural gas pipeline and service road run along the north boundary.

Four routes of access are present:-

- 1) by float- or ski-equipped landing on High Lake and operating from a base at Kenora;
- 2) by winter road from the Trans-Canada highway south to the east end of High Lake, thence by canoe along the lake. (road passable to four-wheel drive vehicles during dry periods in the summer);

3) by the Shoal Lake all-weather road south to the gas pipeline service road, and west along the service road to the north boundary;

4) as above, but continuing west along the service road to the Bardyke winter road, thence south along the west boundary to High Lake.

Physical Features:-

The topography is rugged, particularly along the shore of High Lake, where bare rock hills plunge steeply to lake level. In the southern part of the property the surface consists of a series of steep-sided draws and gullies, generally trending east-northeasterly, between high rock hills, whereas to the north the draws form an east-west and north-south pattern between more subdued hills. Sheer cliffs of fifty to seventy-five feet in height are not uncommon.

Outcroppings of bedrock are abundant over the entire property with the exception of a few areas of low ground and swamp. Near the lake bedrock exposure is almost continuous on a series of bare rock hills.

Summary of Work Performed:-

Previous holders have performed limited trenching and stripping on mineralized zones. In 1953 San Antonio Gold Mines Ltd. completed three drill holes under the lake near the east boundary of the property in search of an extension of a mineralized zone on the claims adjoining to the east.

In the present program a grid of cut lines at 200 foot intervals in a north-south direction was established and geological mapping on a scale of one inch to 200 feet and a magnetometer survey were performed in conjunction with prospecting. A magnetometer survey of the claims under the lake was run from the ice in March, 1961, and results were later tied in to the land survey.

Stripping and trenching have been done on a number of mineralized zones, employing a Pionjar rock drill for trenching.

Drilling totalling 1,258 feet was performed, consisting of seven holes on four zones.

Table of Formations:-

Gabbro & Pyroxenite	
Quartz-feldspar Porphyry Dykes & Sills	)
Quartz Diorite Dykes & Sills	)
Quartz Porphyry	)
Granodiorite	)
Intrusive Contact	
Tuff, Agglomerate & Intercalated	
Sedimentary Rocks	
Andesite & Basalt	

Related Acidic  
Intrusive Suite

Description of Formations:-

Andesite and Basalt - Basic meta-volcanic rocks underlie the northwestern half of the property. These are fine-grained greenish rocks of the type generally termed "greenstone" in the field, and consist of a fine aggregate of ferromagnesian minerals and feldspar.

Pillow structures have been noted on a few outcrops but they generally are sufficiently contorted as to make top determinations unreliable.

Although generally fine-grained, the volcanics do possess coarser grained fractions. These often are visible as recognizable pockets or pods of coarse grain within the finer grained rock, but in many instances the relationship between the two is not apparent. In the latter instance it generally is not feasible to determine whether the rock is of volcanic or intrusive origin. In the present mapping a practice has been followed of labelling as intrusive only the definite cases of very coarse grained material occurring over some area, as in the northwestern corner of the property. Doubtful cases have been mapped as volcanics and noted as "gabbroic" on the map. A number of these sections undoubtedly represent small basic intrusive bodies which have not been recognizable as such.

Tuff, Agglomerate and Intercalated Sedimentary Rocks - These rock types occupy a 600 foot wide easterly trending band of low ground across the centre of the property and lie within the volcanic sequence.

The rocks classified as tuff are fine grained, hard, generally light-coloured types exhibiting very fine laminae, particularly noticeable on the weathered surface. In some places small angular fragments are visible.

Most of the agglomerate occurs in a band about 200 feet wide, on the south side of the tuff sequence. The rock consists of unsorted angular volcanic fragments in a fine-grained matrix. The fragments vary from less than one inch in length to about one foot, with the average length being of the order of six inches, and are composed chiefly of very fine-grained, acidic to intermediate volcanic material of light grey and white colours, often containing small quartz phenocrysts.

Some discussion exists among geologists in the area as to whether this rock is actually an agglomerate or is a conglomerate. The writer favours the former because of the dominantly acid volcanic nature of the fragments, their lack of any conspicuous rounding and the apparent lack of sorting.

Sedimentary rocks have been found along the belt, apparently intercalated with pyroclastic and flow material. As exposed in the pits on zones A and F they consist of a banded siliceous rock and a dark gray, strongly contorted phyllitic type. Pyrite and pyrrhotite mineralization, possibly of syngenetic origin, is associated with the sedimentary rocks in the above-mentioned zones.

Porphyritic Granodiorite - The bulk of the southern part of the property is occupied by a stock or batholith mapped as porphyritic granodiorite. The rock is commonly pink, but sometimes grey, the change being due to change in feldspar colour. It consists of a fine to medium grained groundmass of quartz and feldspar, within which are set varying numbers of large (up to one inch long) pink and white orthoclase phenocrysts, and some smaller plagioclase and quartz phenocrysts. Accessory minerals are biotite, muscovite, titanite, apatite and pyrrhotite. The rock is very fresh in appearance, with the effects of alteration and stress not marked either megascopically or microscopically.

An examination of a thin section of this type by W. Gerrie of Swastika Laboratories leads him to call the rock a "quartz-feldspar porphyry corresponding to a quartz syenite in composition". The relative percentages of plagioclase and orthoclase feldspars probably vary through the stock and, as is common, the body may have both syenitic and granodioritic phases.

Quartz Porphyry - The quartz porphyry is a rock very similar in composition to the granodiorite, with the differences that feldspar phenocrysts are far less common and quartz "eye" phenocrysts make up 5 to 10 percent of the rock. It is massive, pinkish, with medium grain quartz phenocrysts set in a medium grain matrix of quartz and feldspar. Contacts between granodiorite and quartz porphyry are gradational and the type probably is simply a marginal and dyke phase of the granodiorite.

Quartz Diorite - This rock type is confined to a dyke swarm in the greenstones near the greenstone-granodiorite contact, and to small bodies within the granodiorite and quartz porphyry. It is a grey massive rock, similar to the granodiorite and quartz porphyry in composition, but containing a higher percentage of accessory ferromagnesian minerals, chiefly biotite. Texture is generally equigranular, although phenocrysts of feldspar and quartz are not uncommon. The rock consists of medium grain quartz and feldspar with 10 to 15 percent accessory biotite and other mafic minerals.

The quartz diorite probably is a contaminated dyke phase of the acidic stock. It would seem to be of a post-consolidation age in places as evidenced by its appearance in the granodiorite and quartz porphyry, although this occurrence also could be explained by local contamination of the acidic rocks, possibly by digestion of a volcanic remnant.

Quartz-Feldspar Porphyry - Quartz-feldspar porphyry occurs in dykes in the greenstone near its contact with the granodiorite body. It is characterized by many (20-30 percent in places) small tabular white feldspar phenocrysts and quartz phenocrysts in a fine grain quartz-feldspar matrix. The rock generally is light to dark grey in colour.

The quartz-feldspar porphyry would appear to be simply another hypabyssal variant of the granodiorite. At one point (line 12E, 28) a cross-cutting relationship between a granodiorite dyke and a quartz-feldspar porphyry dyke was found, in which the quartz-feldspar porphyry appears to be the younger.

Gabbro - The only material recognized in the mapping as definitely a true gabbro occurs in a plug in the northwestern corner of the property. The rock is of coarse to very coarse grain and consists of black and greenish-black pyroxene and amphibole crystals plus varying amounts of feldspar. The feldspar content is not conspicuous on the fresh surface but stands out on outcrop faces, which have coarse "pebbly" surfaces caused by differential weathering. In some places feldspar content is very low and the rock is more properly a pyroxenite than a gabbro.

The gabbro is not generally magnetic and was not reflected as a separate unit on the magnetic survey.

#### Structure:-

The dominant structural feature of the area is the large acidic stock or batholith occupying the southern part of the property. Contained within the intrusive body are a number of inclusions of greenstone country rock of various sizes, becoming more numerous with proximity to the edge of the intrusive.

The intrusive rocks of the batholith are jointed and fractured, the most dominant direction of fracturing being N60° to 70°E. Strongest example noted is the sulphide-bearing shear at 34E, 58. Most major draws and gullies follow this fracture direction.

The volcanic rocks at the margin of the stock have been cut by a number of acidic dykes, most of which exhibit a distinct preference for the dominant N60° to 70°E direction. The dykes are of different types (quartz porphyry, quartz diorite, quartz-feldspar porphyry) but generally form a suite with bulk composition close to that of the granodiorite and probably genetically related to its intrusion.

General strike of the greenstones is N70° to 80°E. Dips are vertical to near-vertical. Sharp, steep-sided draws are common in the area underlain by greenstones, and display a preference for E-W and N-S directions. These may be indicative of block-faulting, possibly in connection with the stock emplacement, although no concrete evidence of movement was found.

The tuff-agglomerate band across the centre of the property generally occupies low ground and may represent a zone of weakness. Sedimentary bands within it are strongly sheared and contorted.

#### Mineralization:-

Most of the zones of sulphide mineralization examined fall into one of three categories:-

- 1) pyrrhotite and pyrite in sedimentary rocks within the tuff-agglomerate-sediment belt;
- 2) pyrite, pyrrhotite and some chalcopyrite disseminated in greenstones adjacent to their contacts with acidic dykes;

3) pyrite, pyrrhotite and some chalcopyrite in massive stringers and veins and disseminated in shear zones within the granodiorite.

Small amounts of disseminated molybdenite were found in narrow, lenticular quartz veins in granodiorite and in greenstone inclusions along the shore of the lake.

Descriptions of the major zones of mineralization follow:-

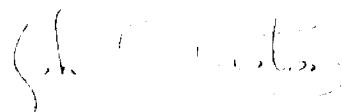
- 1) Zone A (west boundary, 19 + 00N) - One pit exposes banded siliceous sedimentary rocks, magnetite-bearing in places, and containing a one-foot wide heavily gossanized massive pyrite zone, and strongly contorted phyllites containing a one-foot wide zone of massive pyrrhotite veinlets.
- 2) Zone B (16 + 00E to 18 + 00E, 0 + 00N) - Disseminated pyrite, pyrrhotite and some chalcopyrite occur in altered volcanics adjacent to their contacts with quartz-feldspar porphyry dykes.
- 3) Zone C (34 + 00E, 5 + 00S) - Pyrite, pyrrhotite, chalcopyrite and bornite mineralization occur in a silicified shear zone within the granodiorite. Pyrite is present as massive veins from a matter of inches to four feet wide. Pyrrhotite occurs as massive veinlets and chalcopyrite and bornite are present along fracture planes and as erratic disseminations. The zone is exposed intermittently along 300 feet and is reflected as a magnetic closure 500 feet in length.
- 4) Zone D (38 + 00E, 10 + 50N) - A narrow altered volcanic inclusion in massive granodiorite contains small amounts of disseminated pyrite and pyrrhotite and some chalcopyrite, and is cut by a two to three foot wide vein of white quartz.
- 5) Zone E (52 + 00E, 5 + 00S) - A narrow zone of pyrite and chalcopyrite mineralization on a slip plane.
- 6) Zone F (18 + 00E, 21 + 00N) - Heavily disseminated pyrite and pyrrhotite occur in a strongly contorted phyllite band. The setting is similar to that at Zone A.
- 7) Zone G (16 + 00E, 4 + 50N) - A three-foot wide felsite dyke cuts greenstone near a contact with a quartz-feldspar porphyry dyke. The felsite is fractured and carries disseminated and banded (ribbon veins up to 1/2 inch wide) pyrite and chalcopyrite.
- 8) Zone H (22 + 00E, 22 + 00N) - A sheared and mineralized greenstone and tuff in contact with a quartz-porphyry dyke carries disseminated pyrite mineralization.

9) Zone 1 (34 + 00% 30 + 50%) - A sheared light grey felsitic  
intrusive cutting greenstone carries disseminated pyrite mineralization.

JA/jmg  
October 23, 1961

John Auston

I hereby certify the foregoing to be a true and accurate  
description of the work performed



John Auston



REPORT  
OF A  
GEOPHYSICAL SURVEY  
OF THE  
ALCOCK OPTION CLAIMS,  
HIGH LAKE, Ewart TOWNSHIP,  
KENORA MINING DIVISION  
FOR  
SELCO EXPLORATION COMPANY LIMITED

The following report describes results of a magnetometer survey performed during March and May - July, 1961, for Selco Exploration Company Limited, on the following 23 claims in Ewart Township, Kenora Mining Division:-

K-26999 to K-29010 inclusive  
K-29012 to K-29013 inclusive  
K-30734 to K-30736 inclusive  
K-32107 to K-32109 inclusive  
K-32365 to K-32367 inclusive

The claims are held under option by the above-named firm from C. A. Alcock, of Kenora, Ontario.

Description of Survey:-

A survey of the claims under High Lake was performed from the ice in March, 1961, and these results were tied in later to the land survey by re-occupation of a number of the base stations. The land claims were surveyed in the summer over a grid system of lines at 200 foot intervals, the entire system comprising 29.2 miles of cut line. In almost all instances stations are spaced at 50 foot intervals, the exceptions being a few places on the lake survey, where 100 foot spacing was resorted to in areas of negligible magnetic relief. A total of 4,014 stations was occupied during the survey.



The instrument employed is an Askania torsion fibre vertical field magnetometer of scale constant 262.9 gauss per division.

A central control base station was established on the hill behind the camp on High Lake and nineteen subsidiary base stations were set up at strategic points over the property.

#### Discussion of Results:-

The anomalies exhibit a general northeasterly trend across the property and lie in three broad zones trending northeast:-

1. The southern zone is generally magnetically flat, with some scattered isolated highs.
2. The central zone exhibits a complex picture of long and strong magnetic trends in a band about 1,200 feet wide, diminishing in intensity to the northeast.
3. The northern zone which, with the exception of a strong trend in its southern section, consists of weaker isolated anomalies.

Each of these magnetic zones reflects a different geological environment. The southern zone is underlain by a porphyritic granodiorite batholith, within which there are isolated inclusions of basic volcanics and tuffs. Most of the magnetic anomalies can be attributed to normal magnetic contrast between the volcanics and granodiorite and to secondary magnetite developed in the altered inclusions. One anomaly (No. 17) was found to be due to massive sulphide mineralization in a shear in the granodiorite. In the southeast corner of the property the granodiorite contains no inclusions and exhibits almost no magnetic relief.

The central zone of complex magnetics reflects the contact area between granodiorite and volcanics. The belt is terminated to the northeast by a northward swing of the batholith contact and emergence of a quartz porphyry body at the margin of the granodiorite. The greenstone within this zone has been cut by a large number of quartz-feldspar porphyry, granodiorite and quartz-diorite dykes, most trending in a northeasterly direction. Along the contacts with these dykes the greenstone has been altered, producing magnetite, and in places has been mineralized with pyrite, pyrrhotite and small amounts of chalcopyrite. The bulk of the magnetic anomalies is due to these magnetic contact zones.

The northern zone includes the greenstones away from the batholith and the contact zone. The anomalies are generally weaker and scattered, and probably are due primarily to original magnetite concentrations in the volcanics. The long trend 8 - 7A - 7 is due to pyrrhotite and magnetite in a sedimentary environment.

Magnetic Anomalies

<u>Number</u>	<u>Amplitude Gauss above Background</u>	<u>Length Feet</u>	<u>Remarks</u>
1	4000	300	Due to secondary magnetite developed in a small inclusion of altered greenstone in porphyritic granodiorite.
1A	4000	400	Due to magnetite and pyrrhotite in altered greenstone adjacent to a contact with granodiorite; up to 15 - 20% disseminated pyrite and pyrrhotite in places.
1B	2500	200	Same cause as anomaly No. 1 and probably an extension of it.
1C	1500	400	Due to magnetite in greenstone adjacent to contact with porphyritic granodiorite.
1D	1500	400	Due to secondary magnetite in small altered greenstone inclusion in porphyritic granodiorite.
2	500	300	Cause unknown; occurs in an area of greenstone cut by numerous dykes and possibly is due to secondary magnetite in contact zones.
3	3000	300	Due to secondary magnetite developed in volcanics along contacts with quartz diorite dykes; no sulphides seen.
3A	12,000	150	Similar setting as No. 3 and same cause.
3B	6000	200	Due to a magnetite-rich band in greenstones in vicinity of a dyke contact; no sulphides of note; well-exposed at 4E, 1 + 00 N.
3C	27,000	400	Due to a magnetite-rich hybrid rock (altered greenstone) adjacent to contact with a quartz-diorite dykes; rock is strongly magnetic, contains 10-15% finely disseminated magnetite, no sulphides; exposed at 8E, 1 + 50 N.
3D	Up to 5000	600	Correlates with a magnetite-rich contact of greenstone with quartz porphyry; no sulphides seen.

<u>Number</u>	<u>Amplitude Gauss above Background</u>	<u>Length Feet</u>	<u>Remarks</u>
4	5500	500	Salco "B" zone:- trenches and pits at 16E, 0 + 10 N (directly on the high), 18E 0 + 05 N and 18E, 0 + 25S; old trench at 15 + 90 E, 0 + 00 N; altered and mineralized greenstone adjacent to contacts with quartz-feldspar porphyry dykes; up to 10-15% disseminated pyrite and pyrrhotite with some chalcopyrite; magnetism due to both pyrrhotite and magnetite.
4A	3000	400	Cause not definitely known, but is associated with dyke contacts and would appear to be a continuation of No. 4.
5	up to 22,000	600	Cause not definitely known; associated with contact of greenstone and diorite and probably a continuation of 5A (see below).
5A	up to 6000	1200	Cut by Salco drill holes SE4 and SE5. Magnetism due to disseminated pyrrhotite (up to 5%) and magnetite in hornblende schist (altered greenstone) adjacent to contacts with diorite, (logged as grey porphyry).
5B	5000	200	Cause unknown; lies in low ground.
6	up to 2500	800	Cause unknown; lies in greenstones.
7	up to 13,000	500	Salco zones "P" and "T"; three pits directly on the magnetic high; four more along strike to the east; banded siliceous sedimentary (?) rocks and contorted slates, similar to those found along strike to the west at zone "A" (see feature 8 below); magnetism is due to disseminated pyrrhotite and magnetite and massive pyrrhotite veinlets; strongly magnetic tuff (?) exposed along strike to the east at 24E, 21 50 N carries disseminated magnetite and pyrrhotite.

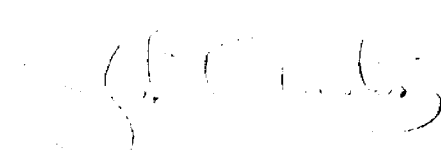
<u>Number</u>	<u>Amplitude Gauss above Background</u>	<u>Length Feet</u>	<u>Remarks</u>
7A	up to 7000	900	Cause not definitely known but would appear to be a strike extension of Nos. 7 and 8.
8	6000	400	Saleo zone "A"; pit 30 feet west of 0 + 00 E, 19N, stripping at 2E, 19N, banded siliceous rocks and contorted slates as at No. 7; some siliceous banded material carries disseminated magnetite and is moderately to strongly magnetic; one foot wide band of massive, heavily gossanized pyrite flanked by a one foot wide zone of massive pyrrhotite veining (strongly magnetic).
9	3000	400	Cause unknown; lies in greenstone.
10	4500	400	Cause unknown; lies in low ground.
11	up to 2000	1000	Cause unknown; lies in greenstone.
12	2000	400	Cause unknown
13	9000	800	Due to 5-10% finely disseminated magnetite in a 6 foot wide band of dense, hard black diabasic rock exhibiting sharp concordant contacts with the greenstone; no sulphides seen; would appear to be a diabase sill or dyke; well-exposed at 24 + 00 E, 3 + 00 S.
14	3000	200	Due to secondary magnetite in a small greenstone inclusion in granodiorite.
15	1000	200	Same cause as 14
15A	700	800	Coincides with a long, narrow inclusion of greenstone in granodiorite; due to secondary magnetite.
15B	400	200	Due to secondary magnetite in a small greenstone inclusion in granodiorite.
16	4000	600	Coincides with an inclusion of tuffs and volcanics in porphyritic granodiorite; magnetite has been noted in the tuffs but few sulphides are present.

<u>Number</u>	<u>Amplitude Gammae above Background</u>	<u>Length Feet</u>	<u>Remarks</u>
16A	7000	200	Correlates with a small inclusion of greenstone, chiefly altered to chlorite schist, in porphyritic granodiorite; cut by hole BH-1 (not plotted on preliminary map); magnetism due to disseminated magnetite and pyrrhotite in chlorite schist and one 1" stringer of massive magnetite; disseminated chalcopyrite present.
17	11,500	500	Selco "C" zone; six pits along a strike length of 276'; magnetism due to massive pyrrhotite mineralization in a shear zone in porphyritic granodiorite; zone contains massive and disseminated pyrite and pyrrhotite, accompanied by some chalcopyrite and bornite.
18	3000	500	Cause unknown; coincides with a diorite dyke cutting greenstone.
19	4500	500	Cause unknown; coincides with a greenstone and tuff inclusion in porphyritic granodiorite.
20	6000	600	Cause unknown; lies in porphyritic granodiorite cut by diorite dykes.
21	16,000	700	Selco "D" zone; four pits and trenches along strike at eastern end of the anomaly expose sheared rusty volcanics containing narrow bands of massive pyrite and pyrrhotite and disseminated pyrite and pyrrhotite; magnetism due to disseminated magnetite and to pyrrhotite.
22	4000	600	Cause unknown; would appear to be a continuation of No. 21.
23	2500	300	Cause unknown; correlates with a small greenstone inclusion in quartz porphyry.
24	6000	200	Cause unknown; lies on a contact between volcanics and quartz porphyry and probably is due to a small concentration of magnetite in the greenstone.
25	2000	600	Cause unknown; coincides with a contact between volcanics and quartz porphyry.
26	up to 8000	1600	Coincides with northern contact of a large, long greenstone inclusion in quartz porphyry; due

<u>Number</u>	<u>Amplitude Gamma above Background</u>	<u>Length Foot</u>	<u>Remarks</u>
			to secondary magnetite developed along contact; strongest part lies under low ground.
26A	3000	400	Cause unknown; lies in a draw at contact between volcanics and quartz porphyry; may be a continuation of No. 26.
27	Up to 11,000	1200	Cause unknown; generally follows the contact of tuffs and greenstone with quartz porphyry.
28	1000	300	Cause unknown; lies in greenstone.
29	Up to 2000	600	Cause unknown; lies in greenstone.
30	1000	300	Cause unknown; lies in greenstone.
31	up to 4500	700	Cause unknown; lies in low ground surrounded greenstone outcrop.
32	Up to 5000	500	Cause unknown; strongest peak is very small and centered over the gabbro-greenstone contact.
33	4000	400	An outcrop of rusty, sheared gabbro (?) occurs at 10E, 42N, at the west end of the anomaly; material is magnetic and contains disseminated pyrite and pyrrhotite.
34	Up to 1500	1000	Cause unknown; lies in greenstone.
35	3000	300	Cause unknown; area examined but no explanation found.
36	4000	200	Cause unknown.
37	1500	400	Cause unknown; lies in an area of no outcrop.
38	1000	400	Cause unknown
39	Up to 8000	800	Cause unknown
40	Up to 1000	700	Cause unknown; strongest part lies in an area of no outcrop.
41	2000	200	Cause unknown

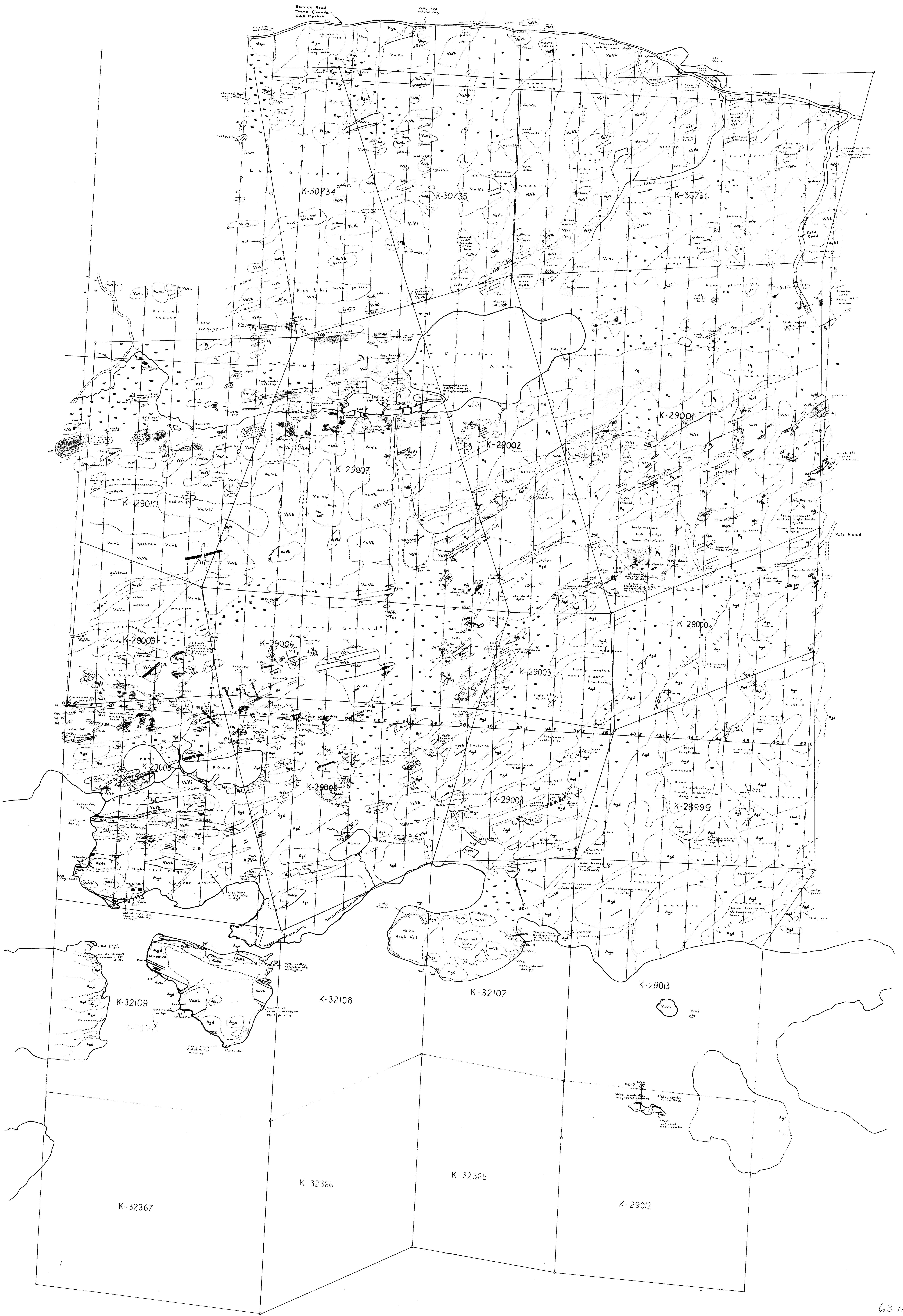
<u>Number</u>	<u>Amplitude Gammas above Background</u>	<u>Length Feet</u>	<u>Remarks</u>
42	Up to 3400	600	Coincides approximately with small inclusions of greenstone in granodiorite; probably due to secondary magnetite.
43	1300	200	Cause unknown; probably related to contact between greenstone inclusion and granodiorite.
44	Up to 1800	700	Cause unknown; probably related to contact between greenstone inclusion and granodiorite.
45	2000	200	Cause unknown
46	Up to 2800	700	Strongest section tested by drill hole SE-7, but only narrow section of slightly magnetic material intersected below anomaly, indicating negligible depth extent; strongly magnetic greenstone carrying much disseminated magnetite is exposed on the small island.
47	Up to 1300	400	Cause unknown
48	1700	400	Cause unknown; probably related to secondary magnetite in a greenstone inclusion in granodiorite.
49	1100	200	Cause unknown; probably the same as postulated for 48.

I hereby certify the foregoing to be a true and accurate description of the work performed.



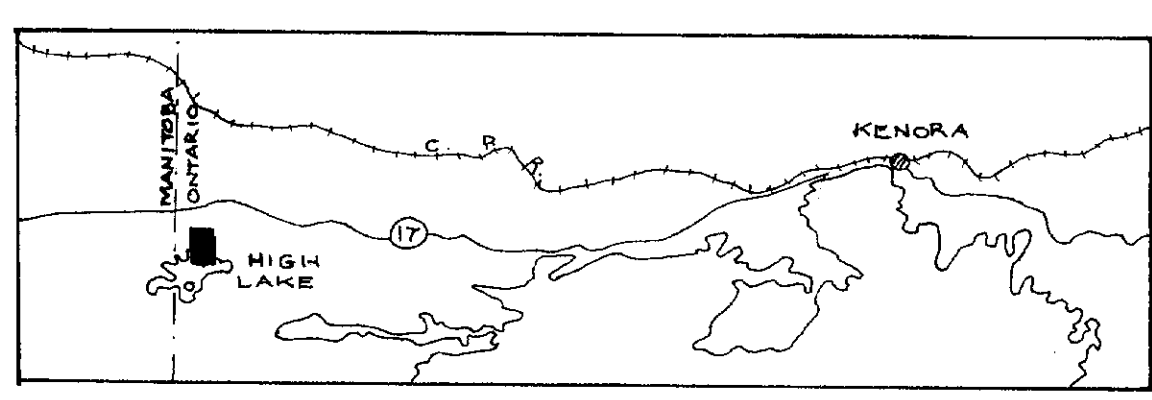
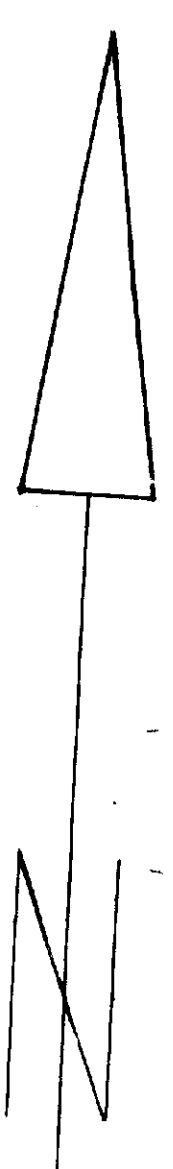
JA/jmg

John Auston

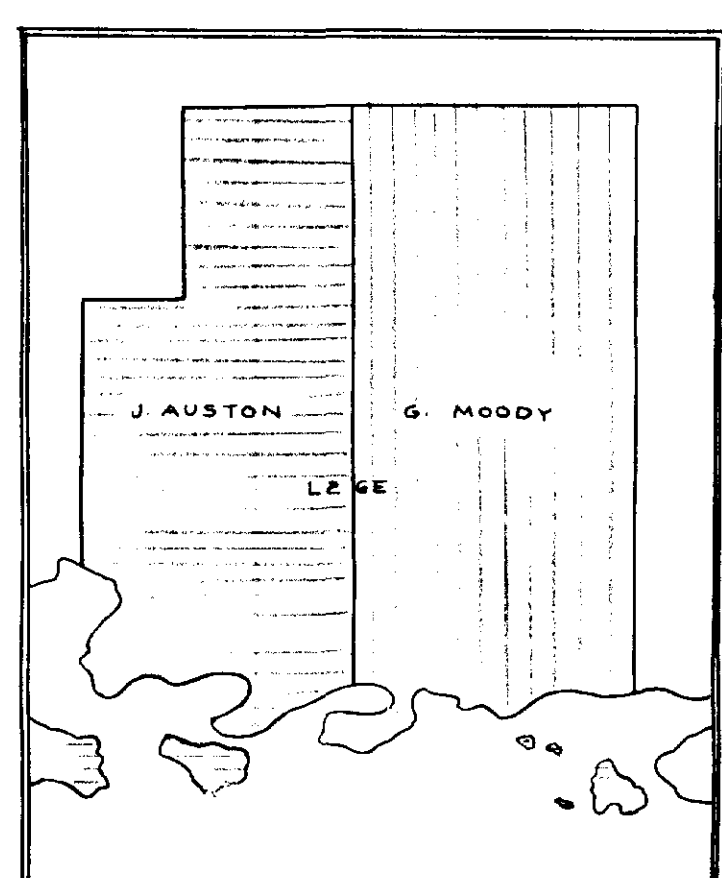


63.1128

ALCOCK OPTION  
HIGH LAKE  
GEOLOGICAL SURVEY  
1" = 200'



LOCATION SKETCH  
1" = 0 MI.

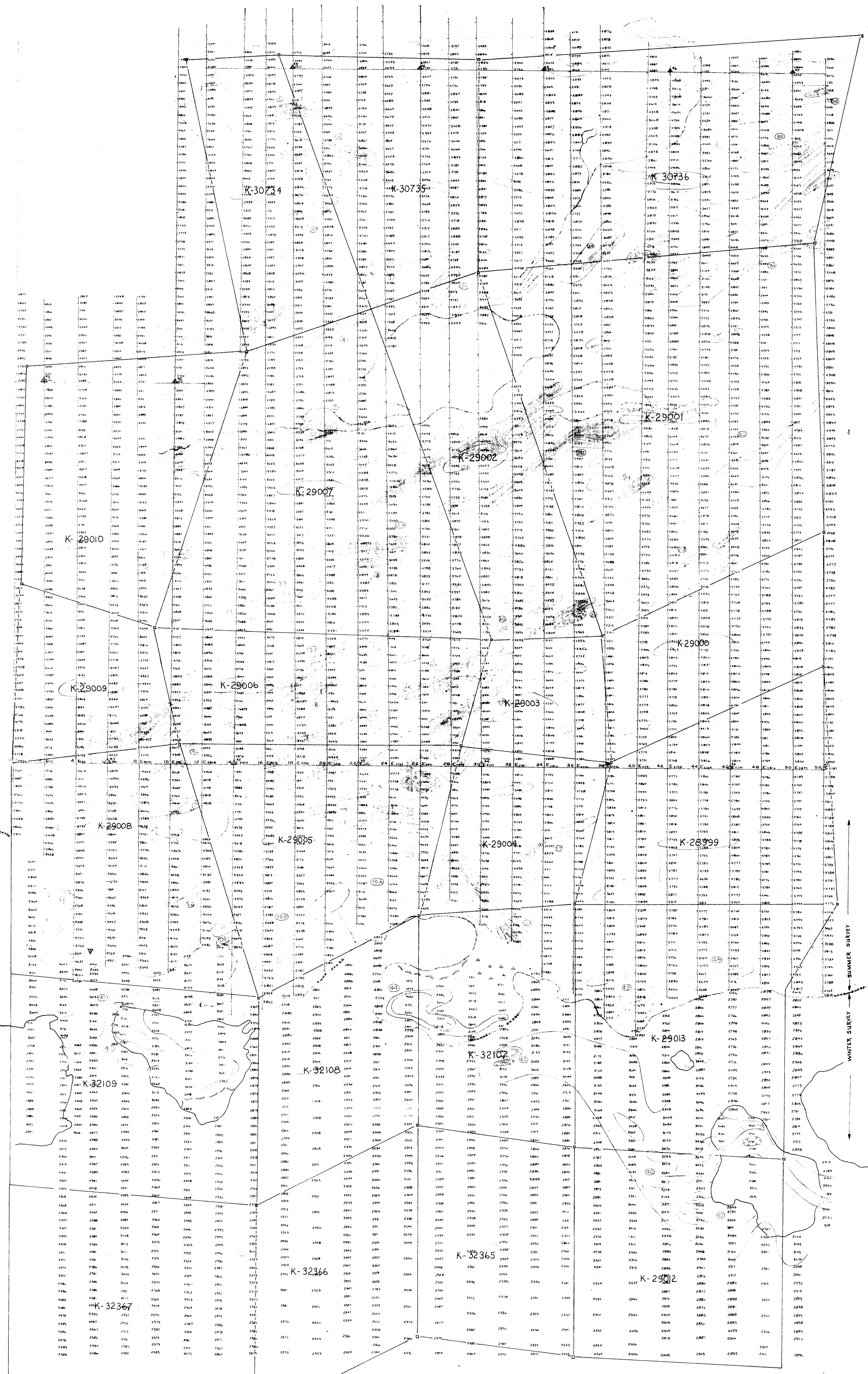


MAP AUTHORSHIP - NOT TO SCALE

- |  |                          |  |                               |
|--|--------------------------|--|-------------------------------|
|  | GRANDIORITE              |  | SHEARINGS, STRIKE & DIP       |
|  | QUARTZ PORPHYRY          |  | BEDDING                       |
|  | QUARTZ-FELDSPAR PORPHYRY |  | OUTCROP BOUNDARY              |
|  | QUARTZ DIORITE           |  | GEOLOGICAL CONTACT, OBSERVED  |
|  | GABBRO                   |  | GEOLOGICAL CONTACT, INFERRRED |
|  | QUARTZ VEINS             |  | PYRITE                        |
|  | ANDESITE and BASALT      |  | PYRRHOTITE                    |
|  | AGGLOMERATE              |  | CHALCOPYRITE                  |
|  | TUFF                     |  | TRENCH                        |
|  |                          |  | DRILL HOLE                    |
|  |                          |  | SWAMP                         |
|  |                          |  | CLIFF                         |
|  |                          |  | BEAVER DAM                    |
|  |                          |  | CLAIM POST & BOUNDARIES       |
|  |                          |  | CLAIM NUMBER                  |

*John Auston*  
AUSTON  
SEPT 1961



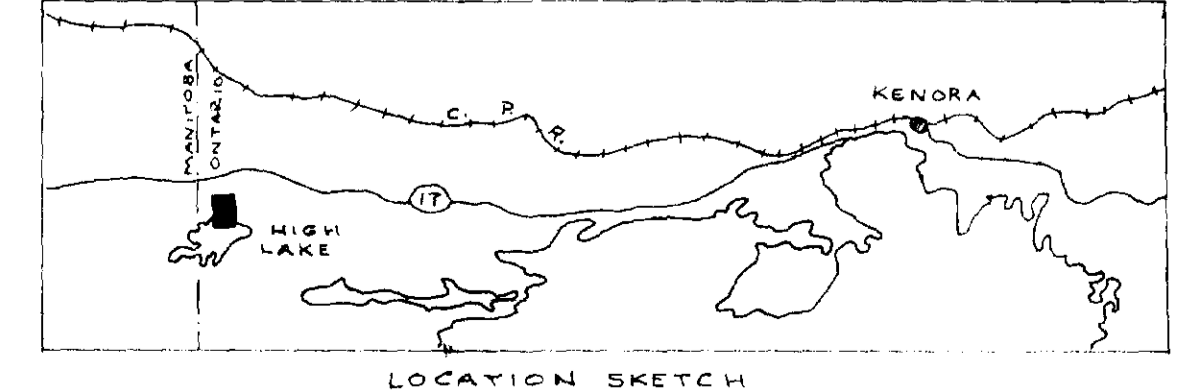


**HIGH LAKE**

- LEGEND**
- ▲ Main control station
  - △ Base station
  - △ Sub-base station

NOTE: NORTH PORTION SURVEYED BY A. GRIBBIN (SUMMER SURVEY TO LAST POINT)  
SOUTH PORTION SURVEYED BY T. ARCELL (WINTER SURVEY ON LAKE)

**SELCO EXPLORATION CO. LTD.**  
 MAGNETIC SURVEY  
**ALCOCK OPTION**  
**HIGH LAKE**  
 100' x 10'  
 Drawn by: H. M. Suter J.A.  
 Date: Oct 15, 1961  
 Rechecked by:  
 PLAN No.



*John C. Suter*  
 63-1128  
 10/16/61