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MINING LANDS BRANCH

GEOLOGICAL REPORT AND MAP

PHASE - 1

DONE FOR

2.17192

JAMES' PROSPECT (ELLARD 1966 Cu - Zn OCCURRENCE) MINING CLAIM GROUP # K.1160894

MANROSS TP. (LAKE OF THE WOODS) EASTERN PENINSULA

KENORA MINING DIVISION DISTRICT OF KENORA, ONTARIO

DATED: JANUARY 28th, 1996 DATED AT: KENORA, ONTARIO Coucht 2. 3370

Alasdair J.M. MOWAT Mining Engineering Technician, CET & Prospector (#A.39679)



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52E09SW0003 2.17192 MANROSS

INTRODUCTION

A/. PROPERTY NAME: JAMES' PROSPECT - originally "The Ellard ('66) Cu-Zn Occurrence".

B/. PROPERTY LOCATION:

- 1. Township / Area Manross Tp., Eastern Peninsula (Lake of the Woods)
- 2. District in Ontario Kenora
- 3. Mining Division Kenora
- 4. Mining Claim Group Description
 - a. Claim Group No. One (1)
 - b. Claim Tag No. K.1160894
 - c. No. of 16 Ha. Units in the Claim Group is 16
 - d. NTS location is 52 E/9 SW
 - f. Latitude and Longitude co-ordinates of the Claim Group is Lat. 49° 33' 59.5" to Long. 94° 18' 11.5" to 49° 34' 55.1" N. 94° 19' 41.3" W.
 - g. Ownership (100%) by J.H. Willis (H.11404) and A.J.M. Mowat (A.39679)
 - h. Recording Claim Map reference (copy enclosed) is M.2338, Plan G.2656, Area Yellow Girl Bay & Manross Twp., (Lake of the Woods), Scale 1 in. to ½ mi., Dated Jan. 26, 1996.

C/. PROPERTY ACCESS:

- Refer to the enclosed Location Plan (Topographical Sheet, Longbow Lake, Kenora District of Ontario, NTS 52 E/9, Edition 3, Scale 1:50,000, Dated 1975.
 - Access to the prospect can be gained by water and/or overland means of travel
 - a. The Northern Claim approach is by taking Route "A" or "B" -
 - (i). Route "A" is by water. A distance of 28 km.. From Kenora, boat travel is south to the southern tip of Scotty Island. Turning southeast down Andrew Bay into Witch Bay passing between Clam Island and the Eastern Peninsula mainland. Boat beaching at the south end of James Bay. An old logging trail takes one 200 m. south to the north claim boundary.
 - (ii). Route "B" is by means of road and water. Road travel is 41.9 km. plus 6 km. by boat. Total distance of 47.9 km.. By vehicle, drive east from Kenora on Hwy. # 17 to Hwy. junction # 71. A distance of 20 km. Another 11.3 km. south on Hwy. # 71 brings one to the signed "Witch Bay Road". Turning west, one proceeds 4.8 km. to the signed "Witch Bay Camp Road". Private drive. A 5.8 km. of travel takes one to the camp. From the dock into James Bay is 6 km..

- b. The Southern Property approach is by boat, Route "C". A distance of 31 km. Take noted Route "A" above but continue south from Scooty Island passing through "French Narrows". (This is a passage between East Allie Island and Eastern Peninsula.) Travelling south, following the south shore line of the Peninsula, one comes to "P.O.W. Bay". Taking the old logging road north, one encounters the southern claim line. Walking distance is 1.6 km..
- c. Approach to the eastern property boundary is by one of two Routes "D" or "E" -

The common factors to these routes are land travel and they follow the same directions as laid out for Route "B" above, with the following exception. Instead of turning west at the "Witch Bay Camp Road", proceed south 13.3 km. to the end of the road. This portion of the road is called Jadakin - Sup Lake. Total travelled distance is 49.4km. The termination of the road is the take off point for the stated routes.

- (i). Route "D" is a new 1995 access foot trail, cut and flagged, by the claim owners. The tail starts from the mentioned road, north side of a rocky escarpment, at about 260° azimuth for approximately 3 km.. The trail intersects the eastern property boundary ± 55 m. south of the # 400 m. line post. Total distance 52.4 km..
- (ii). Route "E", which will be the main access to the project area, is a flagged continuation line from the present end of the Jadakin Sup Lake Road. The marked construction route is about 3.3 km. in lenght intersecting the claim boundary at ± 125 m. north of the # 1,200 m. line post. Road azimuth is 250°. Road distance from Kenora to the property is estimated at 52.7 km. Time frame construction will be 1996 or '97, at the latest.

D/. PROPERTY DESCRIPTION:

1. Vegetation - The property is situated within the Eastern
Peninsula. Plant types are controlled by soil,
water and rock. This is a new growth area. Logged in 1940's.
Ash and Cedar trees occupy damp sites. The former found in
low topographical depressions. A large Tamarack swamp, lying
about property midway, occupies such a depression. Alders
are found associated with the fore-mentioned tree types.

At the more moderate elevations, a mixture of Poplar, White Birch, Spruce and Hemlock. The latter two having been worm infested. A dense carpet of Moose and Manitoba Maples blankets the ground.

The higher sites are dominated by pines of Jack, White and Red. Scrub Oak is found in the northeast corner of the property and Basswood to the southeast.

Ponding by beavers exhibit standard marsh foliation of meadow grass and standing dead.

2/. Terrain - The prospect lies within the standard Precambrian Shield terrain, noted for its undulating hills and wet valleys.

The knolls trend in an easterly fashion with broad damp to wet low lands between. Potable is not found within the

The topographical nature of this property impedes clean line traversing.

3/. History - The property and surrounding area was logged around the early '40s, by prisoners of war. Their main camp at P.O.W. Bay. We believe the "Ellard" Discovery Zones were uncovered during that time.

After the discovery of the Kidd Creek deposit in Timmins, Ontario, a country wide search was on for other occurrences of base metals. In or about 1966, K. G. Ellard formed a prospecting syndicate based on the copper - zinc discovery, Eastern Peninsula. He optioned his prospect shortly after.

In 1967, Filo Geophysics Limited evaluated the occurrence by a geophysics (magnetometer - electromagnetic surveys) combined with geology. The latter report and/or plan are not found in the assessment files. The purpose of the surveys was to establish the mineral geophysical characteristics which would be applied to this and other zones within the site. Filo, in his report, page 2, states; "Two chip samples return 1.25% Cu across 12 feet and 1.49% Cu across 8 feet on either side of a pit blasted across a copper bearing chert zone.". The author recommended three (3) test holes. He assumed the rock units had a 70° strike.

March, 1968, COMINCO optioned Ellard's prospect and drilled two (2) holes, E-68-1 and - 2. Both holes were drilled at 160° @ - 45°. E-68-1 (new oo-ord. 0+800 - 1+143) returned 195 feet. The started in rhyolite for 14.5 feet with the remaining units consisting of limestone, shale, graphitic shale finishing in dolomite. Three (3) assays taken. Best results was sample # 81400-c which was 5 feet of -0.01% Cu, 0.03% Zn and -0.01% Ni. E-68-2 was drilled 249 feet. (New co-ord. 1+528 - 1+132). Log reported impure limestone, dolomite, graphitic limestone, graphitic shale, Andesite into gabbro. Two (2) sammples reported. The combined weighted average is 0.07% Cu, 0.63% Zn and 0.025% Ni over 8.5 feet. The optioner dropped their interest.

About 1968 or '69, the showing was restaked. Kerr Addison Mines Ltd., in '70, carried out a two (2) drill hole evaluation. Holes C-118-1 and -2. C-118-1 (new co-ord, 1+100 - 0+950) was collared 70 feet South 20° East, drilled North 20° West @ - 45° for 267 feet. Logged rock units were Quartz Feldspar Porphyry, andesite, Bx rhyolitic unit and ending in andesite. Four (4) samples removed. Assay results for Au, Ag, Cu and Zn were not recorded. C-118-2 (new co-ord. 0+965 - 1+082) was drilled

north of the "Ellard", bearing N 20° W @ -45° for 338 feet. Logged units were rhyolite, andesite, Bx rhyolite and terminating in rhyolite. Five (5) samples removed. Assays not reported. This company dropped its interest.

Copies of the assessment records are enclosed.

From 1970 to -' 94, the prospect lay dormant. In 1994, local prospector, Mr. J. H. Willis brought to the author's attention the mineral merits of the Eastern Peninsula. Assessment file review attracted our interest. Field inspection of the said peninsula ended in October '94 with the relocation of "Ellard's" prospect. This required four (4) days. Another day was spent at the site. Investigation of the gossaned zones and surrounding area confirmed the significance of the find. The lateness of season dictated the ending of our review with an eye to early spring '95 start-up.

Over the winter months, a game plan was drafted - PHASE 1. Unexpected OPAP financial support aided in completing this slated phase, 1995.

E/. 1995 -PHASE 1 PROSPECT ASSESSMENT:

- 1. Objective
 - a. To assess the authenticity of the "Ellard Occurrence";
 - b. To assess the early reported assessment work in relationship to the Ellard and surrounding area;
 - c. To gather geological data, and
 - d. Combining all the above factors to be able to arrive with supportive conclusive evidence, the Ellard et al. is indeed within and part of a polymetallic environment.
- 2. Methodology North-South traverse lines at 100 m. intervals were conducted over the project area. Line control was topo line, pacing and compass in conjunction with air photographs # 82-4924-14-12 to -15, scale l in. to ½ mi..
- 3. Results Phase 1 met all the objectives, as set out above.

 The author has enclosed a Geological Survey Plan
 of the property, JP.GL.95.1, scale 1: 2,500. subsequently,
 a 16 unit block of claims surrounds the Ellard Showing, June
 '95.
 - a. Geology -
 - (i). Phanerozoic Period The property was glaciated.

 Glacial striation measurements indicate ice movement from the North-east. Shallow clay deposits are localised in low areas with overlying sand and/or gravel. Majority of these topo lows are now occupied by most recent streams and/or swamps.

Sand and/or gravel is found above the lower elevations; particularly, within the eastern claim boundary and extending another 2 km. east. Traversing these areas, does indicate marketable material.

(ii). Precambrian Archean Period - To accommodate Phase 1 of the program. The five (5) main rock units have been classified under the following headings from the latest to the earliest -

LEGEND

Precambrian
Archean
Felsic Intrusive Rocks

I F Por - Quartz and/or Feldspar Porphyries

Metasedimentary Rocks

S,cht - Cherts, Siliceous Siltstones, Graphitic Shales, Limestones, Dolomites

Felsic Metavolcanic Rocks (Rhyolitic to Dacitic)

F - Massive Flows, Porphyritic Flows, Flow Breccias, Breccias

Mafic to Intermediate Metavolcanic Rocks (Andesitic to Basaltic)

M v - Massive, Pillowed and Porphyritic Flows, Tuffs

Ultramafic Metavolcani Rocks (Basaltic to Basaltic Komatiitic)

UM v - Massive to Pillowed Flows and Porphyritic

Note: All rock types, within the area, are highly metamorphosed and mylonitized.

- UM v The ultramafic volcanic rocks dominate the south 1/3 of the property. These units have a komatiitic affinity. High chromium and titanium. They have been subjected to a high level of chemical alteration.
- M v The Mafic to Intermediate Metavolcanic Rocks dominate the N.W. quadrant of the claim group and along the north boundary line. This unit or units has be subjected to chemical alteration and may be an offspring of the komatiites, lying to the south.
- F Felsic Metavolcanic Rocks are found in the north-east corner of the claim and striking in a west-south-west direction accross the property. This particularly class of rock is defined, more or less by the claim's east and west boundaries. The rocks from east to west are rhyolitic massive flows, porphyritic flows, flow breccias and around COMINCO's (relocated drill hole) # E-68-1 brecciated and gossaned with trace to 1-2 % chalcopyrite. This unit could be

"Mill Rock". A great majority of these units have been subjected to chemical alteration. Chromium presents is well above background.

- S,cht The Metasedimentary Rocks are not as visible evident on the property, although they do exist as seen at the Ellard and two outcrops to the east. They are of a chemical nature, graphitic (organic) shales with nodular sulphides. These units are anomalous in base metals. In both COMINCO's drill holes, limestones, dolomites and graphitic shales or combinations of were noted. Examining field data, they seem to be associated within areas of low topograph. Therefore, their existence and abundance is on a greater scale. Evidence does support the correlation of noted magnetic attraction to sediments.
- I F Por These Felsic Intrusive Rocks consisting of quartz and/or feldspar porphyries are not as prominently exposed. They have been cut in drilling; particulary, at the Ellard and verified by exposure at same. The felsic porphyritic flows can be easily confused for intrusives. The intrusive porphyries are expected to be confined to structural linears. These units have been subjected to chemical activity.
 - (iii). Alteration The most obvious aspect of the "Ellard Showing" and at least within a ½ mile radius of this site is the intense alteration; as examplified by the gossaned rock outcroppings. Relating this area to the rest of the Eastern Peninsula, this site has undergone the greatest metamorphic change.

Alteration minerals, not in order, found within the various rock units are: chlorite, biotite, sericite, leucoxene, iron sulphides of pyrite, pyrrhotite and at less + trace chalcopyrite and oxide mineral ilmenite. Silicification is prevalent plus other exotic undefined minerals. Due to alteration intensity, rock units can be, at times, difficult to identify without whole rock chemistry.

- b. Mineralization Thirty three (33) rock chip samples 32 within and 1 outside the project area - were taken and submitted for 31 element analyses. The assay sheet is enclosed. The individual sample sites were grid co-ordinated, sample length noted, rock typed and magnetically profiled. Following is a summary of results:
 - (i). Gold Considering the detection limit for this element is in ppb, one would expect, at least 2 ppb and higher. Only six (6) returned above nil value. The komatilitic nature of this environment komattites been well known for their gold association which has been subjected to high alteration, indicates this element has been stripped and remobilised. Deposition of this element should be found in areas exhibiting structural weaknesses; such as, at cross-faulting intersections and noses of regional folding, not excluding particular rock capping. In the majority of cases, their is a magnetic low association.

Therefore, the gold results are important; particularly, the six (6) anomalous values. Samples # 9501 and -02 are associated with linears and adjacent to a defined regional magnetic low. Samples # 9509 and -29 have a similar association to structure and lie in close proximity to an indicated fold with low magnetic correlation. In this noted vicinity, one finds a low swampy area, one finds iron flocculent in the water. This indicates mineral breakdown, the source being close to surface. The two noted samples above are within 200 m. of this locality.

The other two anomalous gold samples #9519 and - 21 are from Trench Areas "B" and "C". They are within or very close to graphitic shales and linears.

- (ii). Chromium is elevated in all the samples. Sample # 9514 is from "Ellard" Trench Area "A". This sample returned 1,400 ppm over a length of 25 m.. The high chromium supports a komatiitic environment.
- (iii). Elevated copper values are noted. Three samples # 9516, Ellard Trench Area "A" ran 1,600 ppm across 1 m.. #9519, Ellard Discovery Area "B" returned 1,200 ppm over 15 m.. These noted samples verify the presence of copper mineralization at the Ellard. Sample # 9531, east of the Discovery Zones, assayed 1,500 ppm across 2m..
- (iv). Other Elements of Note Sample #9531 assayed 100 ppm

 Mo.. Nickel sample # 9514

 and 15, Ellard Site "A" returned 450 and 460 ppm.

 140 ppm lead in sample # 9501. Titanium is very

 anomalous. Samples # 9524 and 29 at 1,800 ppm.

 Highest zinc assay is from # 9508 returned 290 ppm

 over 40 m. The sample taken from a rhyolitic por
 phyritic flow. Second highest zinc value reported

 was sample # 9519 returning 230 ppm Trench Zone "B".

c. Structure -

- (i). Bedding Determinations Determining bedding directions and dips was restrictive.

 Measurements that could be gained, indicated bedding planes to be oriented between 100 to 106°, dipping north. At the "Ellard", the beds strike 106° with an average 74° dip north. Excluding the alteration masking effects, magnetics will distort measurements.
- (ii). Folding An anticlinal fold, plunging 60° west, raking north, is indicated in the northeast quadrant of the property. In turn, developing into a syncline lying in a westerly direction around property mid point. This is outlined by a broad low wet tamarack swamp. Data indicates the existence of a "S" Fold between these structures as further evidenced by the Governments'

Aeromagnetic Vertical Gradient Map #41429 G, 52 E/9c,d, Scale 1: 20,000, dated 1985. This survey shows a broad curving magnetic low feature crossing the central half of the property.

(iii). Lineation - At least a six (6) linear group of complex faulting patterns traverse and net the area. These linears plotted on the enclosed geological map. The intensity of these numerous parallel features can only be assumed at this phase of the program. Their nature would indicate the result of folding affects. It is presumed, the northeasterly trending linears are the displacement ringing effect of the Viola Granitic Stock to the east. Fault/shear movement in the vertical, horizontal and lateral planes is unknown. Exploration investigations has to consider their effect on the displacement of prior mineral development and emplacement of post mineral deposition.

EXPLORATION SUMMARY AND CONCLUSIONS

The data gathered from the 1995 Phase 1 of the exploration program, verifies the existence of a polymetallic environment within the claim group. This environment consisting of syngenetic emplacement of base metals - Cu, Zn & Pb - and precious metals - Gold - would be localised at the noses of the "S" Folds, fault intersections and/or rock capping; example, graphitic shales.

The object of the project was to re-assess the authenticity of "Ellard's Occurrence". Field investigation by geological, geophysical and chip sampling of the gossaned zones support the 1967 reported 1.25 and 1.49 % sections of reported copper mineralization from the Discovery pit and trenches.

Field investigations of the previously reported property sites - assessment work 1967, -68 and -70 by Filo et al., COMINCO and Kerr Addison, gave the author an understanding of events. That is (1) COMINCO and Kerr Addison were conducting a regional base metal evaluations. The "Ellard Occurrence" was one of numerous projects. Geology work, when reported, was limited. Emphasis on test drilling outlined geophysical targets by short and few in number holes.

Based on Filo's Geophysical report and maps of the Ellard, the control baseline was established at an azimuth of 070° and 400 - foot grid lines oriented N 20° W. The choice of baseline orientation is incorrect. Bedding strike is 106° at the Ellard. Some of the rock units at and around the Ellard are highly magnetic and from personal experience will distort bearing measurements. Filo et al. was correct in assuming a north dip to the rock units. 74° field measured. Filo et al. had recommended the drilling of three (3) sites. In both cases, COMINCO and Kerr Addison did not follow his recommendations. All four (4) drill holes were drilled in the wrong dip direction, striking about 35° off the true bedding di-

rection and down-dip. Even with the wrong orientation of the base and grid lines, if one or both companies had addressed Filo's suggestions, a different set of drill results would have occurred.

In conclusion, the "Ellard" is one small part of the larger picture, within the confines of the claim group, of an area that exhibits the correct geological - geochemical - geophysical characteristics necessary for an environment to host polymetallics of Cu - Zn - Pb - Ag & Au.

RECOMMENDATIONS

Following is recommended work:

PHASE 1 - 1995 -

1/. Completion of the Fluxgate Magnetometer work over the "Ellard Occurrences".

PHASE 2 - 1996 -

- 1/. Complete brushing and stripping at the "Ellard".
- 2/. Additional rock sampling at and around the "Ellard".
- 3/. Detail follow-up work; particularly, south and east-west of the Discovery Zone focusing on indicated parallel magnetic conductors that correlate to the same.
- 4/. Prospect the area in and around COMINCO's drill hole # E-68-1 collared in brecciated gossaned rhyolite.
- 5/. Further assessment of the area of iron flocculent and ground around.
- 6/. VLF EM conduct evaluation in conjunction with additional magnetic work.
- 7/. Note: Any line cutting has to be cleared with the MNR; particularly, with the company that controls the timber limits of the Eastern Peninsula. This property is within the cutting area. Logging to start 1996 or '97.
- 8/. Additional sampling will consist of whole rock and mutielement analyses were outcropping occurs. In areas of no outcrop, soil and vegetation samples to be taken.
- 10/. The purpose of this second phase, as outlined, is to build upon the '95 program. This new additional information will only further assist in delinating known zones and adding new target areas. By approaching the prospect in this manner, one gets maximum return for drilling dollar. This avoids the exploration mistakes and errors made by the optioners, COMINCO et al. 1967 '70.

FIELD SURYEY '95 BY: A.J. M. Mowat and J. H. Willis (Prospector #H.11404)
& Geotechnician

REPORT DATE: January/1/

REPORT BY: A.J.M. Mowar, Mining Engineering Technician and Prospector (#A.39679)

MAPS ENCLOSED

- 1/. Location Map James' Prospect (Ellard Occurrence) Topographical Sheet, Longbow Lake, 52 E/9, Edition 3, Produced by the Surveys and Mapping Branch Department of Energy, Mines and Resources, Ottawa. Scale 1: 50,000, Dated 1977.
- 2/. Claim Map M.2338, No. G-2656, Area: Yellow Girl Bay & Manross Twp. (Lake of the Woods), Kenora District, Kenora Mining Division, Ontario. Scale 1 in. to 40 chains (½ mi.), Issued Jan. 26, 1966.
- 3/. Map JP.GL.95.1, Geological Survey of Mining Claim
 No. K.1160894, James' Prospect (Ellard '66 Cu-Zn
 Occurrence, Manross Tp., Eastern Peninsula, Ontario,
 Lake of the Woods, Kenora Mining Division, Scale
 1: 2,500, NTS 52 E/9 SW, by A.J.M. Mowat, Dated
 Jan., 1966.

COPIES OF PREVIOUS ASSESSMENT WORK ENCLOSED

- 1/. Report on Combined Magnetometer-Electromagnetic Survey done for K.G. ELLARD (1966) Grubstake, Manross Township (Lake of the Woods), Kenora Mining Division, Ontario, By John J.D. Filo, June 15, 1967. Attached COMINCO Diamond Drill Sampling Record for Hole No. E-68-1, Mar./68 and E-68-2, Mar./68.
- 2/. Kerr Addison Mines Ltd., Diamond Drill Records for D.D.H. No. C-118-1, Dated Feb. 26, 1970 and C-118-2, Dated Mar, 5, 1970.

TABLES ENCLOSED

1/. Table 1: Chip Sample Assav Results, Project: REP#E0/95 (Ellard Occurrence), Mining Claim Group No. K.1160894, NTS 52 E/SW, by TSL / ASSAYERS Laboratories, Mississauga, Ontario, Dated Dec. 04, 1995.

REFERENCES

1/. Aeromagnetic Vertical Gradient Map, Map 41429 G, 52E/9c,d, by Energy, Mines and Resources Canada, Geological Survey of Canada and by the Ministry of Northern Development and Mines, Ontario, Scale 1: 20,000, Dated 1985.

PHASE - 1

GEOPHYSICAL REPORT AND MAP

DONE FOR

JAMES' PROSPECT

(ELLARD 1966 Cu - Zn OCCURRENCE)

MINING CLAIM GROUP # K.1160894

MANROSS TP. (LAKE OF THE WOODS)

EASTERN PENINSULA

KENORA MINING DIVISION
DISTRICT OF KENORA, ONTARIO

DATED: FEBRUARY 14th, 1996

DATED AT: KENORA, ONTARIO

Alasdair J.M. MOWAT
Mining Engineering
Technician, CET
& Prospector (#A.39679)

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ENCLOSURES

- APPENDIX Copy of McPhar M700 Magnetometer Instruction Manual, 7 pages.
 - Map: JP.GP.95.2, Geophysical Survey of
 Mining Claim No. K.1160894, M700 Magnetometer
 Ground Survey, Dated Feb./96, scale 1: 2,500

A/. PROPERTY NAME: JAMES' PROSPECT - originally "The Ellard ('66) Cu-Zn Occurrence".

B/. PROPERTY LOCATION:

- 1. Township / Area Manross Tp., Eastern Peninsula (Lake of the Woods)
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 - e. Latitude and Longitude co-ordinates of the Claim Group is
 Lat. 49° 33' 59,5" to Long. 94° 18' 11.5" to
 49° 34' 55.1" N. 94° 19' 41.3" W.
 - f. Ownership (100%) by J.H. Willis (H.11404) and A.J.M. Mowat (A.39679)
 - g. Recording Claim Map reference is M.2338, Plan G.2656, Area Yellow Girl Bay & Manross Twp., (Lake of the Woods), Scale 1 in. to ½ mile.

C/. PROPERTY ACCESS, DESCRIPTION & GEOLOGY:

Refer to previously submitted Geological Report and Map, Phase 1, Dated January 28th, 1996.

D/. GEOPHYSICAL DATA:

- 1. Type of survey Ground Magnetics
- 2. Instrument used in conducting the survey McPhar Flux Gate $\,$ M700 Magnetometer
- 3. Description and application of the M700 Magnetometer Refer to enclosed copy of operational manual.
- 4. Methodology Readings taken, facing north, at 25 meter stations on north-south lines spaced 100 meters.
- 5. Dates of survey-

Land - August 24, 26, 27, 29 & 31; September 6, and October 1, 3, 5, 7, 8, 9, 11 & 14, 1995 (14 Days)

Water (Ice) - February 10 & 11, 19**9**6 (2 Days)

6. Area / Line Coverage (Total) -

Departure	<u>Latitude</u>	Distance	Readings
L 0+300 W	 0+900-1+000 S	 200 m.	 9
L 0+400 W	 0+900-1+400 S	 500	 21
L 0+500 W	 0+875-1+400 S	 525	 22
L 0+600 W	 0+875-1+500 S	 625	 26
L 0+700 W	 0+875-1+600 S	 725	 30

Continued:

TOTAL =

Departure	<u>Latitude</u>	Distance		Readings
L 0+800 W	 0+900-1+650 S	 750 m.		31
L 0+900 W	 0+900-1+650 S	 750		31
L 1+000 W	 0+900-1+650 S	 750		31
L 1+100 W	 0+950-1+650 S	 700		29
L 1+200 W	 1+050-1+500 S	 450		19
L 1+300 W	 1+200-1+400 S	 200		9
				
11 Lines		6,175 meti	ces	<u>258</u>

7. Location & Established Gamma Reading at "Base Station" Location - L 0+500 W - Latitude 1+025 S
Reading - ± 420 gammas

E/. GEOPHYSICAL - FIELD - RESULTS & CONCLUSIONS:

1995 Phase 1 geophysical reconnaissance consisted of 11 lines of coverage - total distance of 6,175 metres - and 258 readings at 25 metre station intervals. This ground magnetometer survey encompassed the original "Ellard Cu - Zn Discovery Showing". The purpose was to test the application of a magnetic survey to established geology and mineralogy with the view, if required, to adjust and fine tune in Phase 2 of the exploration program '96.

Gamma contouring was at 500 on the lower readings and at 1,000 above 1,000. Finer contouring on the 2,500 m. plan would have lead to confusion. This scale was used to accommodate the geological map scale for ease of overlaying.

A northeasterly trending magnetic low traverses the the central portion of the surveyed area. This low coincides with several parallel linears. The magnetic high on L 0+400 W - 1+025 S is proximal to 3 rock assays - # 9531 returning 1,500 ppm Cu.

At the Ellard Showing, Station L 0+950~W-1+075~S, magnetic highs lie to the north, south and west. Rock samples taken in this vicinity ran as high as 1,600~ppm~Cu.

As a result of the magnetic survey, station readings have to be closed up; particularly, where there is significant gamma flux. This also includes line in-filling. A plan scale of 500 to 1,000 would be more appropriate to meet the needs of finer contouring.

FIELD SURVEY DATE: 1995 & '96

REPORT DATE: February 14th, 1996

REPORT BY: A.J.M. Mowat, Mining Engineering Technician, CET

SECTION 1

INTRODUCTION

The M700 Magnetometer is a vertical field magnetometer employing the flux gate principle. The instrument is self-levelling, and a self-cancelling circuit permits rapid, accurate measurement of the earth's magnetic field from a meter, without adjustments or calculations.

The self-levelling feature of this electronic magnetometer eliminates the need for bulky tripods and time consuming fine levelling procedures. Further, the instrument is practically insensitive to orientation. Errors are as low as 25 gammas for 180 degree rotation in a 15,000 gamma horizontal field.

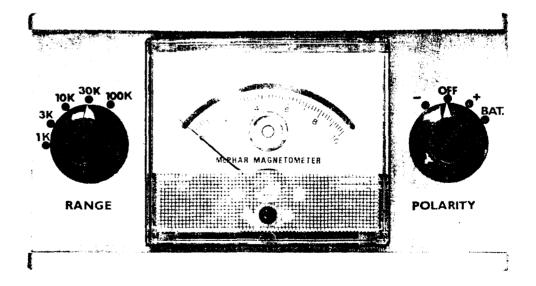
Since the instrument can be adjusted electronically to measure vertical fields from plus 100,000 gammas to minus 100,000 gammas, there is no need for auxiliary magnets or complicated latitude adjustments.

The operation of the M700 is very simple. The reading on the meter is set to zero at

a chosen base station by operating the latitude adjustment control. This can be done to an accuracy of 5 gammas. Next, as successive stations are occupied, the instrument is held roughly level, and the increase or decrease in the vertical component of the earth's magnetic field is read directly from the meter. Five scale ranges are available and on the most sensitive range the accuracy is 5 gammas.

The M700 Magnetometer is the result of extensive engineering based on rugged field requirements. It incorporates the latest advances in solid state components and has built in temperature stability. The instrument provides rapid, accurate, repeatable measurements.

An accessory socket broadens the applications of the M700. Optional accessories available from McPhar permit the same console to be used, for example, as a base station monitor or an airborne recording magnetometer.



SECTION 2

SPECIFICATIONS

2-1 MAXIMUM SENSITIVITY

20 gammas per scale division on 1,000 gamma range.

Readability is 1/4 scale division or 5 gammas.

2-2 MAXIMUM MEASUREMENT

Zero to ± 100,000 gammas in five ranges.

Range Switch Position	Full Scale In Gammas	Gammas Per Scale Division
1 K	1,000	20 black scale
3K 10K	3,000 10,000	50 red scale 200 black scale
30K	30,000	500 red scale
100K	100,000	2,000 black scale

2-3 MEASUREMENT POLARITY

The above ranges can be reversed in polarity as a simple function of the Polarity switch.

2-4 LATITUDE ADJUSTMENT

The latitude adjustment permits concelling the earth's field up to a magnitude of \pm 100,000 gammas. The adjustment control is a ten revolution precision potentiometer located under the sliding side panel. A positive type locking lever on the control removes the hazard of accidentally dislodging the setting.

2-5 SELF-LEVELLING SENSING HEAD

The unique self-levelling sensing head of this magnetometer is inserted as a plug-in unit. It is easily detached so that the same magnetometer can be used with other types of sensing heads such as the airborne gyro stabilized head etc.

It is recommended that the instrument be re-calibrated at our servicing depot, each time the sensing head is changed.

2-6 ORIENTATION ERROR

The orientation error is set at the factory to 25 gammas or less in the presence of a 15,000 gamma horizontal field. It is poss-

ible to adjust the orientation error and the procedure is explained in the section 9-2 under Maintenance.

2-7 TEMPERATURE STABILITY

Over the temperature range of -35 to +55 degrees centigrade the temperature drift is limited to less than 50 gammas. See section 4-6 on Minimizing Temperature Drift.

2-8 BATTERY SUPPLY

The M700 Magnetometer is powered by two internally mounted 9 volt batteries. Any pair of the following batteries may be used.

Eveready No. 276 Mallory No. M1603 Burgess No. D6 R. C. A. No. VS306

For sub-zero operation the batteries may be transferred to an external battery case and carried under clothing to keep them from freezing. See section 6, Operation with External Batteries.

Two types of external battery cases are available see accessory list, section 11. One type is for the above batteries. Another type of case will accommodate the equivalent in flashlight cells for use in countries where the normal batteries are difficult to obtain.

2-9 ACCESSORY RECEPTACLE

A Cannon receptacle is located on the side of the instrument under the sliding panel. This increases the versatility of the instrument so it can be used in a number of ways in addition to its normal vertical field ground magnetometer function. See section 8, under Extended Applications and section 11, under Accessories.

2-10 ACCESSORY & LATITUDE SWITCH

This is a double function switch. The first function is to permit operation north or south of the equator by simply changing one step.

2-10 ACCESSORY & LATITUDE SWITCH

(Cont'd.)

on the switch. By switching an additional step, the accessory socket is brought into connection and accessories can be applied to the instrument.

2-11 WEIGHT

The weight of the magnetometer is distributed as follows:—

Console:

6 pounds

Batteries:

1-1/4 pounds

2 type Eveready 276

Carrying Case: 2 pounds

2-12 MAGNETOMETER DIMENSIONS

Width:

6-7/8 inches

Depth:

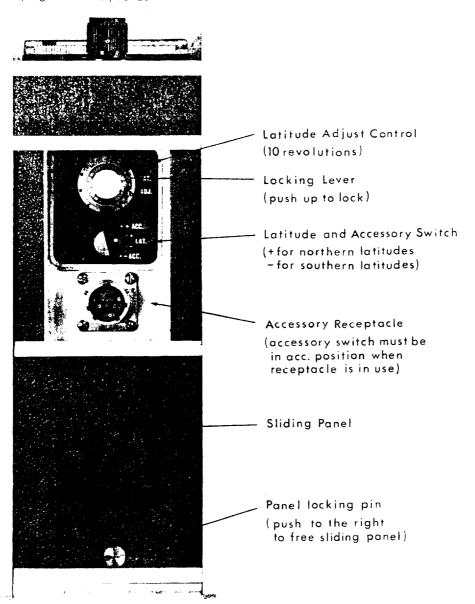
3-3/4 inches

Height:

9-5/8 inches

2-13 TRANSIT CASE

The magnetometer is shipped in a foam fitted transit case. The case is designed to accommodate the magnetometer in its leather case, spare batteries, external battery cable and battery case and instruction manual.



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SECTION 3 GENERAL DESCRIPTION AND APPLICATIONS

The field sensitivity of the M700 magnetometer originates in a flux gate element mounted so that its axis of maximum sensitivity is maintained in the vertical plane. The flux gate element contains an excitation winding and a detector winding. In addition there are auxiliary windings around the element which carry D.C. currents. With the auxiliary windings, a D.C. flux is created to cancel the earth's field. Latitude adjust control and automatic cancelling.

The flux gate element is continuously excited between saturation levels by an A.C. current. A detector winding consisting of differentially wound coils, picks up zero voltage when the resultant D.C. flux through the elements is zero.

When the external D.C. field changes in magnitude, a corresponding phase-reversible second harmonic output voltage is produced across the detector winding. The second harmonic output voltage is fed to a phase sensitive rectifier system and used to provide a cancelling D.C. current to oppose the external field attempting to unbalance the flux gate element.

The system therefore is a self-cancell-

ing one and at all times approximates a condition of zero flux about the flux gate element.

The D.C. current fed back to maintain the zero flux condition is measured on the display meter and is directly proportional to the change in the earth's field. The meter, then, can be calibrated directly in gammas.

Five meter ranges are provided to permit the measurement of a change of field of up to 100,000 gammas. Because the field at any new measurement station may increase or decrease, a polarity reversal on the on-off switch is provided.

The main application of the instrument is for general ground surveying. Because of the lack of any set-up requirements and the rapid direct meter read out, it provides the fastest and most economical geophysical surveying available compared to any other type of instrument or technique.

With the accessory receptacle the M700 lends itself to many other applications. These are covered in Section 8, under Extended Applications.

SECTION 4 OPERATING INSTRUCTIONS

4-1 INSPECTION

After the instrument is unpacked, it should be carefully inspected for damage received during transit.

Particularly check for meter pointer damage and sensing head damage. The meter pointer can be inspected visually. To check the orientation error properly, requires an accurate turntable and controlled conditions. However, to quickly check for shipping damage, place the magnetometer on a flat surface away from any ferromagnetic material. Rotate it 180 degrees. If the self levelling arrangement in the sensing head has been damaged by severe shock, the orientation error will be several hundred gammas. If performing this check in a building, allow for the possibility of large field gradients. That is, after rotation, the magnetometer may end up in a different position and give a different reading.

It may be worthwhile mentioning at this point that, sometimes, when an instrument has been shipped some distance lying on its side, a hysteresis effect occurs on the self-levelling arrangement. The orientation error will consequently be somewhat larger than that set at the factory. This error will disappear if the instrument is allowed to stand vertical overnight.

If any shipping damage is found, immediately file a claim for damage in shipment with the carrier.

4-2 CONTROLS AND THEIR FUNCTION

There are four controls on the magnetometer and only two of these are operating controls used during the survey. For this reason, only these two controls are located on the top panel. The other two controls are located on the side of the instrument and protected by a sliding panel.

4-2-1 TOP PANEL CONTROLS

Polarity

This is a four position switch marked -,

OFF, + and **BAT**. When the instrument is turned to + and a meter reading is indicated, then the earth's field intensity can be read on one of the scale ranges. If, on the other hand, the meter pointer deflects to the left of zero, the switch position is moved to - to obtain a scale reading.

The fourth position is a battery test position. The battery voltage is indicated directly on the black, 0 to 10, scale of the meter.

Range

This is a five position switch that selects the read-out scale of the magnetometer. If the **Range** switch is in the **3K** position, then full scale on the meter represents 3,000 gammas and the red, 0 to 30, meter scale is used. If the **Range** switch is in the **10K** position, then full scale on the meter represents 10,000 gammas and the black, 0 to 10, scale is used. See section 2–2 for the complete range to meter scale relationship.

4-2-2 SIDE PANEL CONTROLS

Latitude Adiust

This is a ten revolution precision potentiometer with a positive type locking lever. Operation of this control varies the magnitude of a D.C. current passing through one of the auxiliary coils wound around the flux gate element. This current sets up a magnetic field in opposition to the earth's field.

It is possible then, to cancel the earth's field at any given location so that the magnetometer meter reads zero. This allows the use of the most sensitive scale ranges for highest reading accuracy. Vertical fields of up to ± 100,000 gammas may be cancelled in conjunction with the reversing feature of the **Latitude and Accessory** switch.

When the **Polarity** switch is in the — position, turning the latitude control clockwise will cause the meter pointer to move clockwise or to the right of zero.

When the + position is used the clockwise rotation of the latitude control will

cause the meter pointer to be displaced to the left.

Note that when the **latitude** control is fully clockwise, no cancelling current is applied to the sensing head. The resulting reading obtained with the magnetometer under these conditions represents the absolute magnitude of the earth's field.

Latitude and Accessory Switch

This control is the one least used. It is marked ± Latitude and + Accessory and -Accessory, using the abreviations of Lat. and Acc. respectively.

The markings simply indicate that north of the equator, only the two positions marked + are used. South of the equator only the two positions marked – are used. The + Acc or –Acc positions are only employed when an accessory such as a recorder and, or, external batteries are connected to the magnetometer.

4-3 CANCELLING THE EARTH'S MAGNETIC FIELD

Prior to the start of a magnetic survey it is desirable to cancel out the earth's field at some chosen location which will be designated as the base station. All future measurements in the area will then remain relative to this key point.

By cancelling out the earth's background field, the more sensitive scales of the magnetometer can be used along with the greater reading accuracy available with the more sensitive ranges.

By referring back to the base station from time to time, a check on the accuracy of the survey and diurnal variations is obtained. The process of magnetic closures is also an effective control procedure. Cancelling the earth's magnetic field is a simple procedure. Rest the Magnetometer on a stump or other convenient location which is to serve as the base station site. Turn the instrument on and select a **range** switch position that gives an on-scale reading.

Open the leather side flap and drop the slide panel to expose the Latitude Adjust control and the Latitude and Accessory switch. Check to see that the Latitude

switch is in the appropriate position, + for northern hemisphere and - for southern hemisphere.

Release the locking lever on the Latitude Adjust dial and operate the control so the meter reading decreases to zero. As zero is approached progressively select more sensitive ranges and finally adjust for zero on the 1000 gamma range. It is not essential to be exactly on zero. Simply record the residual reading after locking the control. Make sure the instrument is held approximately level during this adjustment or while taking the residual reading.

The instrument is now ready for the survey and all future readings will be relative to this point.

4-4 TAKING A READING

Hold the instrument in both hands, slightly away from the body and both elbows pressed to the side of the body. Brace the feet slightly apart. Switch the instrument to the appropriate **ON** position and adjust the **range** switch to the most sensitive range that gives an **on scale** reading. Center the level bubble and while holding the instrument approximately level and steady, note the reading on the meter.

4-5 MINIMIZING FLUCTUATION DURING A READING

No ferrous objects such as steel belt buckles, pant zippers, pocket knives, lighters, etc., can be allowed in the vicinity of the sensing head. Such items will cause random meter fluctuations as the magnetometer moves relative to the body during a reading. Check all metal objects for magnetic effect beforehand using the magnetometer as an indicator.

There is a preferred body stance with respect to the horizontal direction of the earth's field. If the operator stands so his shoulders are roughly parallel to the direction of the earth's field, then back and forth motion of the body during a reading least affects the magnetometer. As the body moves, the sensing head, in its self-levelling suspension, is continually in motion.

The resulting angular rotation is at right

angles to the horizontal field vector and results in minimum variation from this source. The use of the preferred direction is particularly effective on windy days.

The general direction of the earth's field in a given area may be found using the magnetometer. One way is to hold the magnetometer roughly level, then deliberately induce slight back and forth motion and note the meter fluctuations. Rotate the body to a new position and repeat. Do this until a point is found where the meter fluctuations are a minimum as the magnetometer is deliberately moved. This is the point where the shoulders are approximately parallel to the horizontal field vector.

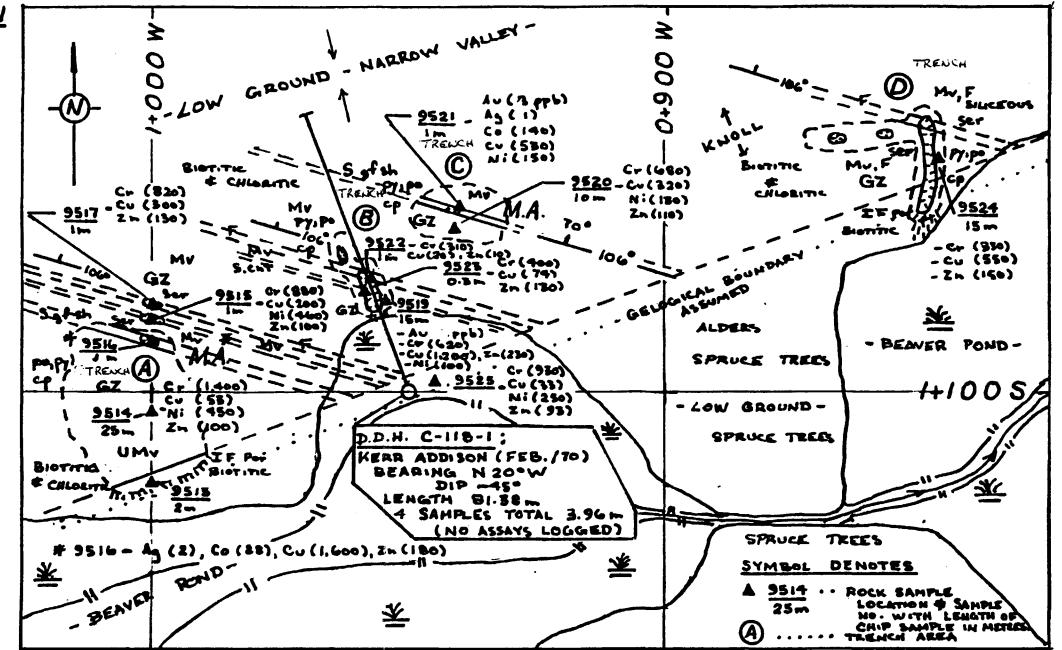
Another way is to set the latitude adjust control fully clockwise. The magnetometer is nowreading the absolute magnitude of the earth's field. Raise the bottom of the magnetometer so the case is parallel to the ground. Raise the bottom an additional five degrees to take up the angle of play in the sensing head and bring the sensing head approximately horizontal. The magnetometer can now be used to find the direction of the

horizontal field vector by rotating the body and stopping where the motor gives a maximum reading. This is not necessarily the absolute magnitude because there is no guarantee the sensing head was horizontal but it does adequately indicate the direction. In this way the magnetometer can be used as a compass for emergency reckoning.

4-6 MINIMIZING TEMPERATURE DRIFT

The temperature stability of the M700 is very good and can be of the order of ½ gamma per degree centigrade. However, where sudden large temperature changes are experienced, allow half an hour for the magnetometer to stabilize before proceeding with a survey. Faiture to do this will result in all of the temperature drift occurring during the early readings.

When operating in sub-zero temperatures it is sometimes more desirable to leave the magnetometer outdoors overnight, taking only the batteries indoors. This eliminates any requirement for stabilization and the resulting temperature drift will be small.



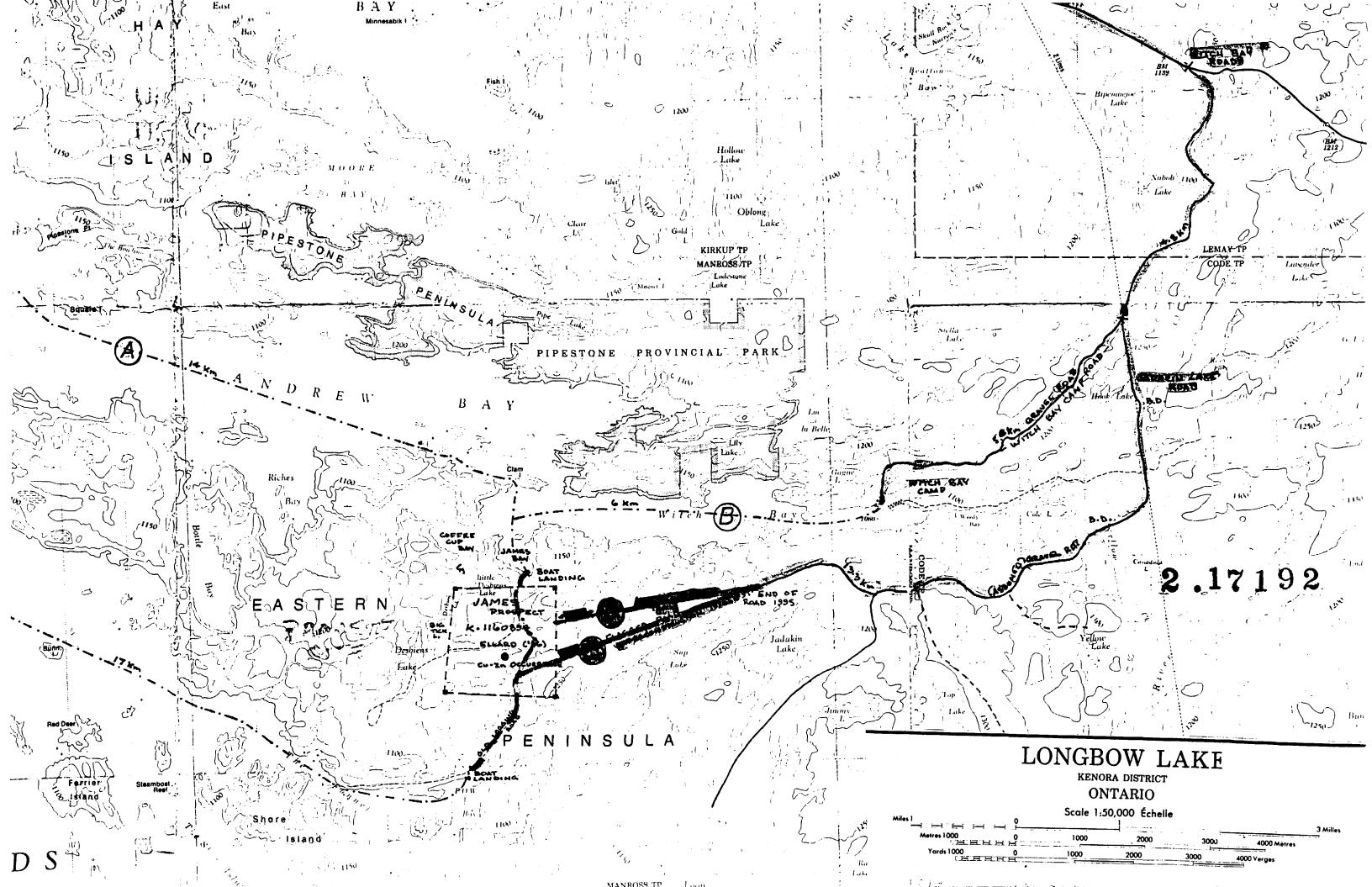
B ELLARD ('66) CU-Zn, OCCURRENCE
REPORTED: TWO CHIP SAMPLES RETURNED 1.15% CU ACROSS
12 FEET AND 1.49% CU ACROSS & FEET ON EITHER SIDE OF
A PIT BLASTED ACROSS A COPPER BEARING CHERT ZONE."

SCALE 1:750° 2.17192

FIELD SURVEY BY: A. MOWAT & J. WILLIS, GEOTECHNICIANS

DWG. BY: A. MOWAT - MINING ENGINEERING VECHING AND CET.

DATED: JAN., 1996



COPY OF ELLARD PROSPECT
REPORT WITH ATTACHED

COMINCO ASSESSMENT DRILL

LOGS E-68-1 \$\frac{1}{2}-2

JAMES' PROSPECT

MINING GROUP # 1160894

NTS 52 E19 SW

REPORT

ON:

COMBINED MAGNETOMETER-ELECTRONAGNETIC SURVEY

DONS COR

DUPLICATE COPY

K. G. ELLARD (1966) GRUBSTAKE

(LAKE OF THE HOODS)

KENORA MINING DIVISION, CHTAPIO

JUN 16 1997
MINING LANDS BRANCH

2.17192



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JUNE 150, 1967.

JOHN J. D. FILO, B.A.Sc., P. Eng.

CONTENTS

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	Page
CONCLUSIONS	1
RECOMMENDATIONS	1
INTRODUCTION	2
property, location and access	3
DISCUSSION OF RESULTS	3

MAPS INCLUDED IN BACK ENVELOPE

MAGNETOMETER SURVEY Scale: 1" - 200 feet

SE-200 E.M. SURVEY Scale: 1" = 200 feet

2E09SW0003 2.17192 MANROSS

020C

CONCLUSIONS

anomalies were located in the combined magnetemeter-electromagnetic survey which may be of economic importance. Two (No. 1 and 2) of these have been traced for a minimum strike length of 800 feet, and one remains open to the west. A third conductor (No. 3) with little or no magnetic association has been traced for 1200 feet and similarly remains open to the west.

The geological-geophysical characteristics of the portion of the property covered by the combined survey indicate a favourable environment for the occurrence of a base metal deposit. Because of this, further work to include prospecting, trenching, an extension of the survey to the west and diamond drilling should be implemented.

RECORDENDATIONS

The following work is recommended in descending order of priority:

COMPUCTOR NO. 1

to the west, if practical, and a diamond drill hole (D.D.#1) on L-12W to be collared at 155 and drilled North at an angle of -45° for a langth of 200 feet.

COMDUCTOR NO. 2

To be drilled (D.D. #2) en L Q+80, collered at Q+80% and (isialed squth at an angle of -45° for a longth of Approximately 200 feet.

companies with the percentage on LAW (D.D. 63), collared at 28, 19 possible and drilled South at -45° for a length of 200 feet.

SHARRES BY STATE AND SUNTAIN

A MATERIAL PROPERTY.

Low priority prospecting with follow-up stripping and transhing is retinated for Childistics will bear that the undishard toldstate stages are also weakly conditions tradition as a large condition of the stages are also provide an abuse are also provide magnet

THE STATE OF THE PARTY OF THE P

At the request of Rri Ki di Ellard of the "K. C.

Ellard (1966) Crubstake Agreement of a parties of the K. C. Ellard

magnetic survey was carried out on a parties of the K. C. Ellard

(1966) Grubstake property in Neuross Township (Lake of the Woods),

Formula, Asserbag in the second of all and the Woods),

Kenera Kining Division, Cotorio.

characteristics essociated with a copper shoulny located at 1-500/
0-805 become which two chip samples returned likes Cu across 12
feet and 1.49% Cu across 8 feet on either side of a pit blasted across a copper bearing chart some. Additional coverage included that perties of the property from approximately 1/4 mile North of this showing to 1800 feet South, 1000 feet West and 1400 feet East.

property and was completed during the interval of Ray 21° to May 29; 1967 by Mrs A. C. Languton of File Completes Limited.

The instruments utilized in the survey were as RF-1 vertical component; fluxgate magnetometer and un SE-200 electromegation with with an operating frequency of 1850 cycles per second. Both instruments are constructed by sharps instruments

of Connic Limited whose main manufacturing plant is located in Doubleville. Chterio. Lively of reference in independing and the 3.7.1. 女教館、家庭 (計画)、「連門は1950cm - 1970 アンドランタ アンドラ (特異報と 音楽 1897年7時間 (東京デステ 高地田のアンド A STATE OF THE STA

PROPERTY. LOCATION AND ACCESS

The area surveyed geogligateally evacious of approxinately 4 dontiquous, unpatented mining claims, comprising the east central portion of a 36 Claim group, as shown the accompenging mess of an energy of the annex of the supplement for 42 to the twent

實 一人一种 机压力 有一人一点 医二氯 医生全种类 中国与硫酸氢氧矿 网络布莱森 化液火物 擊 The entire block of ground consists of the following claims:

Fig. 30. 35. and K-39866 to K-39966 included of Fig. 4 and Market ·中国一大公民居民民和 安德大概的作品等集的的设置 (1985)

Access is by float or ski-equipped aircraft based at Kenore, lending in Witch Bey, some 15 air-miles South-East of Kenora, Ontario. Alternately, the property is accessible by road to Witch Bay and by boat to the South shore of Witch Bay. The property is criss-crossed by many bush souls, skitchle for bringing in a dismond drill and the necessary supplies. 1.25 433 The second secon

DISCUSSION OF RESULTS

Several interesting clastronsynthic conductors and magnetic enqualies were located in the combined survey. The general trund of both the conductors and the neghetly termilles is roughly parallel to the baseline which strikes N70°E.

In coincidence with the original copper showing and a magnetic anomaly immediately south of the baseline and designated Conductor No. 2, an 800 feet conductor has been legated. Its strike extent has been closed off to the east and west.

This, conductor appears to dure a startical dig set is very stoop north dipos Its amplitude is noderate insighmently and white copper-values encountered as Sty; units its commissibly disputitant. Its should be drilled.

B

Approximately 1/4 mile south of the baseline and

Respectively extend took,

designated Conductor No. 1 is a moderate to strong conductor

ACT SUCCESSION LINES.

associated with magnetics that are typical of a sulphide

(Pyrrhetite-containing) conductor. It has been traced for 800

feet and is still open to the west. It appears to dip vertically. This conductor is a first printity Sellik targets

and 188. 1807.

Conductor No. 3 is the longest (1200 feet) conductor located on the property. It lies approximately 500 feet north of the baseline. Although modefate it lightnessy, it does not appear to have a definite magnetic association. Its electromagnetic characteristics suggest that it may be a shear some of very limited width. Low priority prospecting is werranted on this conductor.

Conductor No. 4 is weak to moderate, paralleling Conductor No. 2 and lying about 400 feet south. It is asseciated with magnetics, in part at least and would be a low priority drill target.

The last remaining numbered conductor (Conductor No. 5) lies on the probable strike extension of Conductor No. 3. On the two lines where it is delimited by cross-evers, LSE and L12E, it is moderate to weak in intensity with no appreciable magnetic association. This conductor is open to the east but does not appear to warrant any further geophysical coverage.

In addition, a total of five, unnumbered, isolated cross-evers were located during the course of the survey.

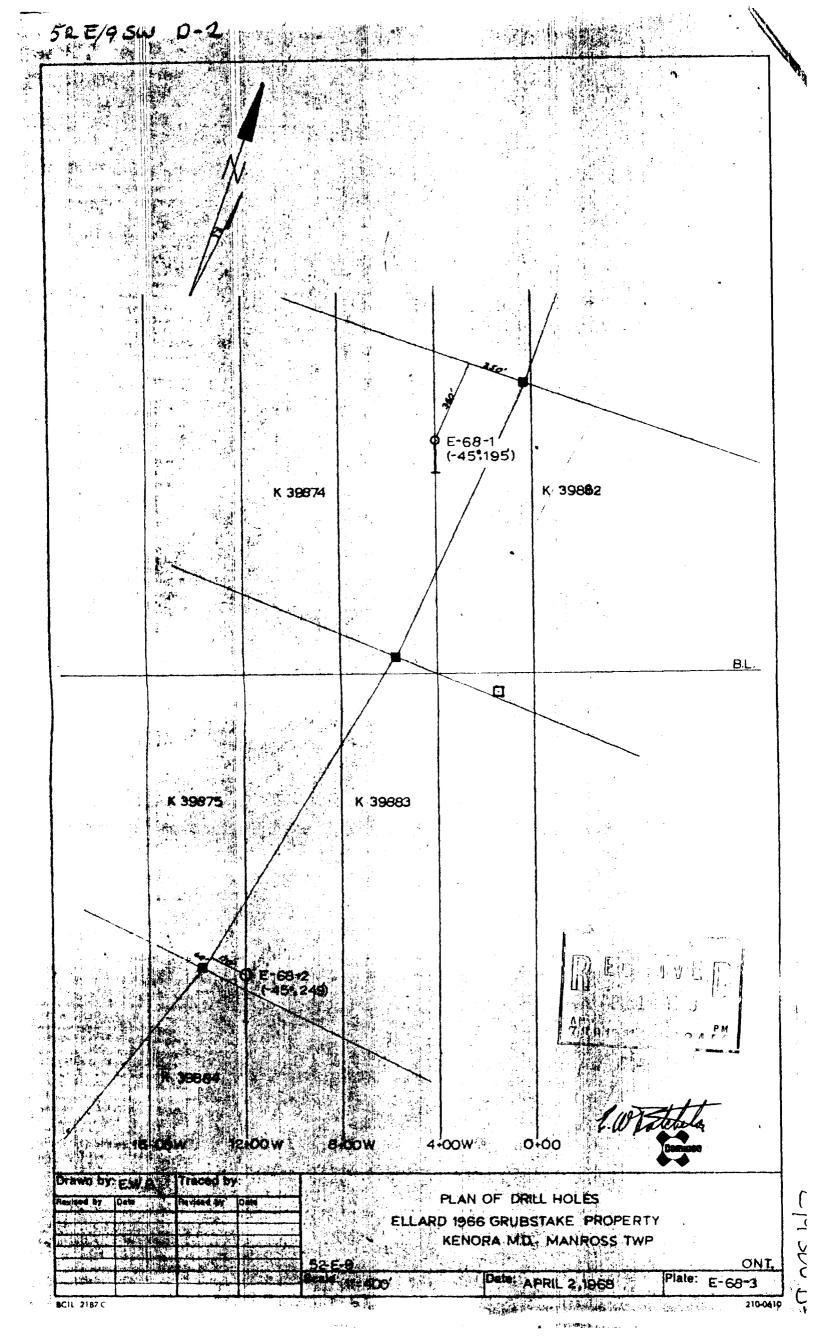
Their relationship to magnetic features is variable and indefinite and as such, they warrant further prespecting with follow-up stripping and tranching only on a very low priority basis.

Respectfully submitted, FILO GEOPHYSICS LIMITED,

June 15m, 1967.

John J. D. File, B.A.Se., P.Eng. Mining Geophysicist.





Diamond Drill Sampling Record



Hole No.	E - 68 - 1	Sheet	1 of 3			NEW CO-ORD	•			
Property	ELLARD GRUBSTAKE	Length	195'	Lat.	9+80N	(0+B005)	Hor. Comp.	150'	Ver. Comp.	1320'
District	Kenora M.D.	Bearing	160° (True)	Dep.	4+00W	(1+143W)	Etch. at	195.0' (59.44m	Total Recovery %	97 3%
Commenced	March 7, 1968	Dip	-45°	Elev.			True Dip	40°	Logged by	E W. Batchelor
Completed	March 11,1968	Objective	To test E.M. anomaly				Location	Eastern Peninsula		
								Tales of the Woods	Managa Tar	V - 160

•				Lake	or the	Woods,	manro	D88 - TAND	•	Mar/6	,
age		Description	Shorts Feet	Sample No.	Length Feet	Analysis					Recovery
n	To					% Cu	72n	% Ni			~ ~
(0)	(0.610)			1							
0	2.0	Overburden: Silt, clay.					1		1		
-	(4.420)		1	1							
2.0	14.5	Rhyolite: Dark grey to grey-green in colour, aphanitic and extremel	y							1 11 11	3.4.5
		siliceous. Quartz eyes up to 3 mm in diameter are common. Minor		1					 :	< .□	8.6. 8.8.
		pyrite disseminated grains (less than 2 mm) is present thru-out.	Ì							3	
		Flow banding cuts the core axis at 35°. Quartz (40%), pyrite (2%), matrix (58%). Contact with underlying unit is sharp at 35°.		1			-			<u>े ज्</u> रा	C sa
	(16.154)	matrix ()ph). Contact with underlying unit is sharp at 35.		j						E.	
14.51	53.0	Limestone: Dark grey to black, massive and very fine grained.			1						9,10,11
بر. 14	199.0	Graphite content probably high. Minor calcite veins (2 mm. wide) cut		1	}					;; स्प	- 6
•		the core axis at 25°. No visible bedding.									85
	(17.374)	are core axes at 25 . No visible bedang.									\$1~
53.0	57.0	Shale: Black v.f.gr. graphitic shale beds up to 10 cm wide separate	H								
33.0	3	by light grey limestone laminae from 1 mm. to 5 mm. wide. Bedding							,		1
		cuts core axis at 40°. Minor disseminated pyrite concentrated in								-	
	1	limestone. Graphitic shale (85%), limestone (13%), pyrite (2%).		1					1		
	(18.593)										
57.0	61.0	Interbedded Limestone & Shale: Limestone same as 14.5' to 53' and		1							
	i	shale same as 53.0'to 57.0'. Limestone beds up to 1' wide are								ł	
	ĺ	separated by 5 cm. to 10 cm. of graphitic shale.								·	
	(39.319)						1				l
61.0	129.0	Limestone: Similar to 14.5' to 53.0' but lighter gray in colour.									
		62.5' - 67.5' Dolomite - light grey and medium crystalline. Crysta	18	81402 C			lnil	<0.01			
	į	are subhedral and up to 5 mm. in diameter. 10% irregular pyrite			67.5		ļ	1			
		stringers up to 5 mm. wide parallel to bedding. 64.0' - 70.0' - Carbonaceous Tuff					!			ļ	
		Angular crystal fragments of feldspar and quartz ranging in size up									*
	i	to 3 mm. groundmass is limey carb@naceous mud. Feldspar (20%),		1					}		,
		quartz (25%), pyrite (10%), carbonate (15%), carbonaceous mud (30%).		1							•
		quarez (23m), pyrice (10m), carbonace (13m), carbonaceous muc (30m).					1				
	,							į l			
	- -	<u> </u>		1	ł	1	1	! !	1	1	

Diamond Drill Sampling Record



Hole No.	E - 68 - 1 Sheet 2 of 3				
Property	Ellard Grubstake _{Length}	Lat.	Hor. Comp.	Ver. Comp.	
District	Bearing	Dep.	Etch. at	Total Recovery	%
Commenced	Dip	Elev.	True Dip	Logged by	E.W. Batchelor
Completed	Objective		Location		

ootage		Description	Shorts Feet	Sample No.	Length Feet	Analys	Recovery			
rom	То					7 Ct	1 % Z1	1 7 Ni		/8
61.0	129.0	Limestone: (Cont'd) (24.384) (29.261) 80.0 - 96.0 Quartz-Feldspar Porphyry (?) - Light grey, porphyritic. Probably intrusive but does not have sharp contacts. Feldspar (40%) quartz (30%), biotite (15%), pyrite (5%) and matrix (10%).							V .	3 33 U
129.0	(55.474) 182.0	Graphitic Shale: (Conductor) - Black, graphitic shale beds up to 5 wide and separated by laminae of limestone from 1 mm. to 5 mm. wide. Similar to 53.0 - 57.0. 10% pyrite is concentrated in the limestone laminae and in concretions up to 2 cm. in diameter. Graphitic shale (80%), limestone (10%) and pyrite (10%).		81400 C 81401 C	148.5	0.0		03 ८ 0 .01		89.40.37 2
182.0	(59.434) 195.0	Dolomite: - Light grey, medium equigranular and thick bedded. Beds are up to 10 cm. wide. Minor graphitic shale and pyrite laminae are interbedded thru-out. Dolomite (90%), graphitic shale (6%) and pyrite (4%).			A55.	A CONTRACTOR				
	195.0	END OF HOLE								
	; ; ;									
	:	9 W Catellity.								211-942

Diamond Drill Sampling Record



Hole No. E-68-2 Sheet NEW CO-ORD. Ver. Comp. 162* Property Ellard 1966 Crubstake Length 249.0 (1+528 S) Hor. Comp. 12+80S 190 Total Recovery % 98.17 Bearing 160° Dep. $(1 \pm 132 \text{ W})$ Etch. at 200° District Kenora M.D. 12+00W -39° -45° Elev. True Dip Logged by E. W. Batchelor Commenced March 13, 1968 Dip

	Description	Shorts	Sample	Length Feet	Analysis	<u> </u>			-+	Re	covery -
)		7001			Runs	Short	s Runs	Shorts		:≥>	ည <i>်</i> ၍
5.0 1.524	Overburden: silt, clay.				5.0		176.5 187.0	0.1		ं जार 6	216 1
54.0 16 459	Impure Limestone - Mottled white and green, medium grained, and foliated. Foliation is sub-parallel to original bedding at 30°. Green streaks and blotches chloritic, probably originally silty laminas. White laminas are distinct quartz and carbonate grains up to 2 m.m. Carbonate (60%), quartz (15%), chlorite (20%), and feldspar (5%).				12.5 17.0 25.0 33.0 41.0	0.3 0.1 0.1 0.2 0.2	200.0 206.0 212.0 222.0 232.0	0.1 0.1 0.0 0.1 0.0	Z	Recove	Ery:
58.0 17.678	Dolomite - Light grey, medium grained and siliceous. Quartz and dolomite grains are subhedral. Minor pyrite grains occupy interstitial positions throughout. Unit is massive and non-bedded. Dolomite (85%), quartz (13%), pyrite (1-2%).				50.0 58.0 61.0 65.0 74.0	0.1 0.2 0.2 0.2 0.1	249.0	0.1		244.0	<u>/</u> x i
61:0 18:59≦	Impure Limestone - Same as 5.0 - 54.0.				93.0	0.0					
55.0 19.812	Graphitic Limestone - Dark grey to black, fine grained and thin bedded. Individual beds from 1 c.m. to 5 c.m. wide; bedding planes at 30-35°. Minor pyrite throughout as disseminated grains. Graphitic limestone (98%), pyrite (2%).				105.0 112.5 120.5 123.5	0.2 0.1 0.0 0.2					
94.0 /3.65)	Andesite - Medium green, fine grained and massive. Irregular calcite veins up to 1 c.m. at 30°-45°. Appears very chloritic, but unfoliated. Chlorite (15%), calcite (10%), and matrix (75%).	·			136.5 139.0 144.0	0.4 0.2 0.1					
99:0 10:175	<u>Limestone</u> - Dark grey limestone, fine grained, and massive, otherwise similar to 61.0 to 65.0.				155.0	0.1	:				alea Programment
5/ 5/ 5/	5.0 1.524 4.0 6.459 7.678 7.678 5.0 9.0 9.0	Overburden: silt, clay. Impure Limestone - Mottled white and green, medium grained, and foliated. Foliation is sub-parallel to original bedding at 30°. Green streaks and blotches chloritic, probably originally silty laminae. White laminae are distinct quartz and carbonate grains up to 2 m.m. Carbonate (60%), quartz (15%), chlorite (20%), and feldspar (5%). Dolomite - Light grey, medium grained and siliceous. Quartz and dolomite grains are subhedral. Minor pyrite grains occupy interstitial positions throughout. Unit is massive and non-bedded. Dolomite (85%), quartz (13%), pyrite (1-2%). Impure Limestone - Same as 5.0 - 54.0. Graphitic Limestone - Dark grey to black, fine grained and thin bedded. Individual beds from 1 c.m. to 5 c.m. wide; bedding planes at 30-35°. Minor pyrite throughout as disseminated grains. Graphitic limestone (98%), pyrite (2%). Andesite - Medium green, fine grained and massive. 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Diamond Drill Sampling Record



Hole No. E-68-2	Sheet 2			• •	
Property	Length	Lat.	Hor. Comp.	Ver. Comp.	
District	Bearing	Dep.	Etch. at	Total Recovery %	
Commenced	Dip	Elev.	True Dip	Logged by	
Completed	Objective		Location		

ge		Description	Shorts Feet	Sample No.	Length Feet	Analysis					Recovery %	
	То					Cr	Zn	Ni			Σ.	
99.0	107.5	Graphitic Shale - (Conductor) - Alternating light and dark laminae up to 1 c.m. wide, primarily graphitic shale with minor carbonate.		81403C	99.0- 103.0	0.04	1.04	0.02	2.2. A 2.12. A	1963	2.3.4.8	
		These are deformed, but cut the core axis at approximately 35°. Sulphide stringers and nodules concentrated in the carbonate lamina Graphitic shale (45%), limestone (10%), pyrrhotite (35%), pyrite (3-4%), chalcopyrite-sphalerite (1-2%).	18.	81404C	103.0- 107.5		0.26	0.03			April 100 m	
7.5	111.5	Limestone - Same as 94.0 - 99.0.									- K	
1.5	217.0	Andesite - Same as 65.0 - 94.0.			2.59m	0.07	0.63	0.025				
7.0	249.0 75.89	Gabbro - Medium grained, mottled green and white, and with subhedra mineral structures. Plagioclass appears unaltered, but pyroxenes almost completely chloritized. Has composition similar to the anderson calcite veining. Contact between andesite and gabbro is gradatically and gabbro is gabbr	?) site;		2.59		0.45	0.023			<i>'</i>	
	249.0	End of Hole.										
		CU 0.0488									٠	
						-						

(67.06)

152.24

stringers throughout.

210.0 220.0

220.0 237.0

59.1	A SW FE					·NT	3 52	€19°	5س
PROPERTY	OND DRILL RECORD LOGGED BY A. Lambort & R. O'Grady O-8 Code Project (Elbrd Showing) NEW CO- Dep. +50 south (1+100 S) BEARING OF HOLE # 200# STARTED February 24, +50 West (0+950 W) DIP OF HOLE	1970		ison Mi	D.D.H. C	NoC	lo	· · · · · · · · · · · · · · · · · · ·	AGE 1.
	DIP TESTS N11 DEPTH 267.0 ft.						AIM POS		,,,,,,
FOOTAGE FROM TO	DESCRIPTION	SAMPLE No.	FOO FROM	TAGE	SAMPLE LENGTH	Au	Ag	ASSAY	Zn
3.66	Casing Quartz feldspar porphyry, Medium grained, biotitia	·				-			
, 52, 54,	Andesite, chloritic, medium grained to coarse sheared, carbonate threads	1803	110.0	115.0	5.01				
	throughout. Occasional aphalorite in fractures (less than 1%) From 110.01 to	1804		117.0	2.01		1	-	
	breceia with 10-20% pyrrhotite at 26.01, 28.01 and 145.01 Core Angold 40-450	1805	205.0	2100	5.0				
175.0° 179.0°	(CRYSTAL TUER aya)) Breccia rhyolitic texture, silicified, 10% pyrrhotite throughout with rare specs								
179.0 204.0	of chalcopyrite Andesite, chloritic, medium to coarse grained, sheared, carbonate threads and		·						
204.0 210.0	stringers throughout. (CRYSTAL TUFF (1)2)2) Breceia-rhyolitic texture, silicified, 10-20% pyrrhotite throughout with rare								
204.0 210.0	specs chalcopyrite, 1.0° band of andesite with a sharp 50° contact at 213.5°								

Andesite-chloritic darker than above, fine grained with carbonate threads and

Quartz feldsper porphyry dike, biotitic, medium grained, grey massive rock

20 267.0 Andesite, chloritic, modium grained, sheared with carbonate threads and

DIP TESTS nil DEPTH 267.0 ft. NE. CLAIM POST FOOTAGE DESCRIPTION SAMPLE FOOTAGE SAMPLE ASS FROM TO DESCRIPTION SAMPLE FROM TO LENGTH	TANCE F
ROM TO DESCRIPTION No. FROM TO LENGTH atringers throughout 1.0° of rhyolitic braceia with 5.0% pyrrhotite at 252.0° END OF HOLE - CASING PULLED	
atringers throughout 1.0° of rhyolitic breccis with 5.0% pyrrhotite at 252.0° END OF HOLE - CASING PULLED	AY
267.0 END OF HOLE - CASING PULLED	

DIAMO	OND DRIL	L RECORD	LOGGED BY	R. O'Brady	Kerr Adaison Mine	es Ltd.
1	ode Project 0-8 (E		2 118-2	Jiven 11.		D.D.H. No. <u>C 118-2</u> PAGE <u>1.</u>
LATITUDE4	NEW CO-ORD (0+965 3) E	BEARING OF HOLE_	n 20°W	STARTED _ February 29, 1970	- 65 cot:	CLAIM No. 203181
DEPARTURE 4	100 # (1+082w)	OP OF HOLE	_ 450	COMPLETED Nerch 5, 1970	- Approvi	DIRECTION AND DISTANCE FROM
ELEVATIONA		PIP TESTS	Nil	DEPTH338.0*		NE. CLAIM POST
	322 y 420.					

F00	TAGE	DESCRIPTION	SAMPLE	F00	TAGE	SAMPLE			ASSAY				
FROM	TO	DESCRIPTION	No.	FROM	TO	LENGTH	Cu	Ag	An	20			
	(3.96)												
	13-0	Casing (Over burden)	<u> </u>	<u> </u>	<u> </u>					<u> </u>	<u> </u>		
	(S.79°			1	1								
13.01	19.01	Rhyolite, felsic, fine grained		<u> </u>		<u> </u>		ļ	ļ				
1	19.60			•	j]]	-		
19.01	31.5	Light medium grained andesite with lightly sheared quartz carbonate stringers	 		<u> </u>	 			ļ	ļ			
	}			1		1				1	-		
		throughout. Shear Augle approx. 500	-		 	 	 	 		 -			
	(14.95)				Ì			1		1 . 1	-		
31.5	49.0	Fina grained brosciated rhyolita, sheared quartz cerborate thragds throughout.	 	 				 	 	 			
		Shear angle approx. 35°.									_		
	(85.45)	Sugar Rugia approve 10.4											
49.0	281.01	Dark fine grained andesite, chloritic, sheared quertz carbonate stringers of to 1	.										
		width. Mineralized shear zone at 165.0 containing pyrite and pyrrhotite less	1					<u> </u>					
											•		
	195.657	than 1%. Altered biotitic stringers running throughout.	 	<u> </u>							 _		
	1								1		•		
49.0	231.0	From 213.0' to 229.0' very dark fine grained baseltic altered andesite. From	 		 								
		226.5 to 227.0 altered garnets within the metrix. Mineralized zone at 239.0	1		1						•		
		ECOST NO ECTAV ACUATION GALLOVER SILVER LIBERTING ALLOW AND AUTOMORPHICAL CONTRACTOR OF THE SILVER ACUATION AND AUTOMORPHI				1							
		containing pyrrhotite. Less than 1% pyrite.1-2% and space of chalcopyrite						}					
	(86.87)												
281.0	235.01	Rhyclite, sheared quartz carbonate stringers throughout. Graphite in shear zoned	<u> </u>	ļ	<u> </u>								
			1		-						-		
		approx. 5% occasional specs pyrite and pyrrhotite in shears only.	<u> </u>	<u> </u>									
	(90.63)	· ·	1		1			İ		ļ	·		
285.0	298.01	Fine grained andesite, occasional carbonate stringers. Nineralized with approx.	1807	285.0	290.0	51							
*		Total matter and long them led chalanameter and applicable . From 200 01 to 200 01	1909	203.0	298.0								
The same of the same of		10% pyrite and less than 1% chalcopyrite and pyrrhotite. From 290.0 to 298.0		27.1.0	230.0	5.					 .		
•		Heavily mineralized with approx000 pyrite, approx10% chatcopyrite, 28 pyrnhotit								1	•		
		approx by the approx by the				,	,	'	į	L_			

6109 SW F-5 DIAMOND DRILL RECORD LOGGED BY ___ Kerr Addison Mines Ltd. R_C!Grady _ PAGE ___2. PROPERTY _____ code Project . 0-8 (Ellard Showing) D.D.H. No. <u>C 118-2</u> STARTED February 28, 1970 LATITUDE_ BEARING OF HOLE W 200W CLAIM No. _____233181 4+00 M COMPLETED March 5, 1970 DEPARTURE_ __ DIP OF HOLE _____ -450 4+00 H DIRECTION AND DISTANCE FROM ELEVATION ____A-Litrory DIP TESTS _______NII DEPTH __ NE. CLAIM POST 338.01

FOOTAGE SAMPLE FOOTAGE SAM				F00	TAGE	SAMPLE		ASSAY				
FROM	TO	DESCRIPTION	No.	FROM	ТО	LENGTH	Cu_	Ag	Atz	7.5		
	(90.83)											
285.01	298.6	and 50-60% graphite								<u> </u>		
		Medium grained Rhyolite, quertz cerbonate stringers throughout with occassional			<u> </u>							
		apacs of pyrite and chalcopyrite in fractures								ļ		
300.0	(95.44) 313.0 *	Fine grained andesite with quarty carbonate stringers. Highly minorelized with	1809	300.01	304.51	4.5						
		50-60% graphite, 30% pyrtic 1-2% chalcopyrite and 2-3% pyrrhotite	1810	304.5	307.01	2.5						
			1811	307.0	313.01	6.01						
313.01	738.01	Rhyolita, medium grained, occassional carbonate threads. Accessory minerals less	ŀ									
(104.55)		then 3% pyrite							-			
338.01		END OF HOLE - CASING PULLED					· · · · · · · · · · · · · · · · · · ·					
		·										
					-			<u> </u>	 -	 		



Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Crown Lands

Personal information the information ્રા



900

e Mining Act. Under section 8 of the Mining Act, prrespond with the mining land holder. Questions int and Mines, 6th Floor, 933 Ramsey Lake Road,

about this collection s Sudbury, Ontario, P3.

Instructions: - For work performed on mining lands, use form 0241.

- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)	EANDS BRANCH
Name	Client Number
ALASDAIR J. H. MOWAT	173492
Address	Telephone Number
GO GENERAL DELIVERY	6/0 (807) 468-4682
	Fax Number
KEEWATIN ONTARIO POXICO	N/A
Name	Client Number
JAMES H. WILLIS	209124
Address	Telephone Number
406 - 12 TH STREET	(807) 547-2113
	Fax Number
KEEWATIN, ONTARIO POX 100	N /A

Type of work performed. Only regional surveys and prospecting work are allowed on Crown Lands before recording. For work performed after recording a claim or on other mining lands, use form 0241.

Work Type	GEOLOGY , PROSPECT	TING, MAGNETOMETER SURVEY	Office Use
	C44.6 Km TRAVERS	ED LINES), 33 ROCK SAMPLES	Commodity Zh, Cu, Au
	TAKEN # ASSAYED STRIPPING # ACCES	FOR 31 ELEMENTS, TRENCHING, 5 TRAIL CUTTING	Total \$ Value of \$22,029.00
Dates Work Performed	From 20 05 95	1 1 -	NTS Reference 52 E / 9 Sw
Global Positio	ning System Data (if available)	MANROSS TWP	Mining Division KENORA
		M or G-Plan Number M. 2338 / C., 2654	Resident Geologist District KENOLA

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

Vame	Telephone Number
AS ABOVE	Fax Number
lame restauration of the second secon	Telephone Number
ddress	Fax Number
lame	Telephone Number
Address	Fax Number

	4.	Certification	by Recorded	Holder or Agent
--	----	---------------	-------------	------------------------

. ALASDAIR J.	M. MOWAT	do hereby certify that I ha	ve personal knowledge (of the facts set
(Print !	Name)			
forth in this Declaration of	Assessment Work having	g caused the work to be pe	rformed or witnessed the	same during
or after its completion and	to the best of my knowl	edge, the annexed report is	s true.	

Signature of Recorded Hold	or a gent		Date MARCH 02,1997
Agent's Address	ABOVE	Telephone Number	Fax Number
\$240 (02/96)	Doomen -	Q. m. 11/0-	

8. Work to be recorded and distributed. Work that is performed on Crown Lands that are subsequently staked as a mining claim, can be claimed at 100% of its value (state this amount in column "a" below). If work is performed on Crown lands and not enclosed within a subsequently recorded claim, it can be claimed at 25% of its value (state this amin column "b" below). Work can only be assigned to claims that are contiguous to (adjoining) the lands where work was performed at the time work was performed. A map showing the contiguous link must accompany this form.

eninit	N		Value of work performed lo. of before recording a mining claim		Value of work	Value of work	Bank, Value of work
Mining Claim Number		Ciaim Units	(a) Work now within a claim. Show 100% of cost.	(b) Work on adjacent Crown lands. Show 25% of cost.	applied to this claim	assigned to other mining claims	to be distributed at a later date.
eg	1234567	4	\$4980	\$725	\$1600	\$800	\$3305
eg	1234568	2	N/A	N/A	\$ 800	N/A	N/A
1	K.1160894	16	* 22,029	N/A	\$ 22,029	N/A	N/A
2							
3							
4							
5				_			
6					·		
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8					*		
9							
10					- 1		
11			DECEIV	ED	€	:	
12			RECE			•	
13			APR 11 19		Park		
14		1	MINING LANDS E	RANCH	8 ' ·		
15					,		
	Column Totals				Q.		
	A .		•				
ubs he d	claim where the	(Print Fine As: work		egulation 6/96 for a	by certify that the a	iguous claims or f	for application to
he d	section 7 (1) of the claim where the ture of Red to the claim.	(Print Fine As: Work Work Mark Ma	Full Name) sessment Work Re was done. gent Authorized in Writi	egulation 6/96 for a	ssignment to cont	iguous claims or f	for application to
he dignar	claim where the ture of Reduction 7 (1) of 1	(Print Fine As: Work Ider or A	sessment Work Rewas done. Spent Authorized in Writing back credits ti	egulation 6/96 for a	red.	iguous claims or f	for application to
he o	claim where the ture of Reductions for the credits	(Print Fine As: Work Work CAR CULT Claim	sessment Work Rewas done. Spent Authorized in Writing back credits ti	egulation 6/96 for a	red.	iguous claims or f	for application to
he dignar	claim where the ture of Rechrections for the credits wish to prioritiz	(Print Fithe As: work work rear or A rear claim the the the	sessment Work Rewas done. Gent Authorized in Writi Ing back credits to ed in this declaration of credits:	egulation 6/96 for a	ved.	Date My	lor application to
he dignar	claim where the ture of Reductions for the credits wish to prioritiz	Print F the As: work lifer or A r cutti claim e the c Credits Credits	sessment Work Rewas done. Spent Authorized in Writi Ing back credits the deletion of credits: are to be cut back are to be cut back are to be cut back.	egulation 6/96 for a ng hat are not approv on may be cut bac ck from the Bank fi	ved. k. Please check (rst, followed by op claims listed last,	Date My In the boxes tion 2 or 3 or 4 as working backward	lor application to
ubs he d lignar	claim where the ture of Reducted in the ture of Reducted in the ture of the credits wish to prioritiz 1. (2. (3. (Print Fithe Assisted From Assi	sessment Work Rewas done. Spent Authorized in Writi Ing back credits ti ed in this declarati deletion of credits: are to be cut back	egulation 6/96 for a ng hat are not approv on may be cut bac ek from the Bank fi ek starting with the ek equally over all c	ved. k. Please check (rst, followed by op claims listed last, claims listed in this	Date My In the boxes tion 2 or 3 or 4 as working backwards declaration; or	below to show hose indicated.
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Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Us	e Only NOTIFICATION		
Received Stamp		Deemed Approved Date	Date Notification Sent
	MARIE LANDING	JUNE 1, 1997	
		Date Approved	Total Value of Credit Approved
	ISAR - 3 1997		
	7 6 8 10 11 12 17 7 4 5 6	Approved for Recording by Mining Reco	Hoer (Signatore)
0240 (02/96)	1. S. S. 112 14 172 174 174 5 6	/www	and
•	Λ		

Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern David Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
ROSPECTING (TRADITIONAL)	7 OPAP + 40 (\$150/DAY) 33 ROCK SAMPLES MAP SCALE	70000 + 6000.00	6,700.00
SEOLOGICAL SURVEY	46 084 (44.6 km)-1:2,500m	4,600.00	4,600.00
GEOPHYSICAL SURVEY	MAGNETOMETER FLUX GATE MF-1 7.7 km, 14 Days - 1:2,500 m	1,400.00	1,400.00
STRIPPING /TRENCHING	7 DAYS @ \$ 150 1 DAY	1,050.00	1,050.00
ACCESS TRAILS	7 DAYS (8 km)@ \$ 150 1 DAY	1,050.00	1,050.00
REPORT & MAPS	B DAYS - OPAP	1,200.00	1,200.00
SAMPLES ASSAYED	33 ROCK FOR 31 ELEMENT ASSAYING	702.67	702.67
Associated Costs (e.g. supplies	, mobilization and demobilization).		
CONSUMABLE SUPPLIES	(FLAGGING)	56.70 + 28.00	84.70
CHAIN SAN (GAS, OIL,	BAR OIL & CHAIN BLADES)	60.00	60.00
ROCK SAMPLE SHIPPING	- 88x	11.45	11.45
DRAFTING SUPPLIES PHO	POCOPING, TYPING SUPPLIES,	E'I'N' E'D'	126.63
	APR	1 1 1997	
	portation Costs	ANDS BRANCH	
TRUCK - 790 , km + 1	186 km = 1,976 km e fo.30/km	592.80	592.80
BOAT - 3,392, 20 + 2,	201 km = 5,653 km @ €0.20/km	1,130.60	1,130.60
SAND MACHINE 284 Km G	and Lodging Costs	235.20	235.20
HOWAT - 77 DAYS @	\$ 15 / DAY	1,155.00	1,155.00
WILLIS - 62 DAYS @	\$ 15 / DAY	930.00	930.00
	Total Value	of Assessment Work	22, 023. 05

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.

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

TOTAL VALUE OF ASSESSMENT WORK

× 0.50 =

Total \$ value of worked claimed.

Note:

- Work older than 5 years is not eligible for credit.

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

Certification	verifying	costs:
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I, ALASDAIR J. H. MOWAT , do	hereby certify, that the amounts shown are as accu	ırate as may
reasonably be determined and the costs were in	curred while conducting assessment work on the land	ds indicated on
the accompanying Declaration of Work form as	RECORDED HOLDER (recorded holder, agent, or state company position with signing authority)	I am authorized
to make this certification.		

Signature

MARCH 02 197

Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines

June 16, 1997

Scott A. Rivett Mining Recorder 808 Robertson Street P.O. Box 5200 Kenora, ON P9N 3X9

Dear Sir or Madam:

Ontario

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

Telephone:

(705)

670-5853

Fax:

(705)

670-5863

Submission Number: 2.17192

Status

Subject: Transaction Number(s): W9710.00038 Approval After Notice

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

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

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

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY

Ron C. Gashinski

Senior Manager, Mining Lands Section

ncodal.

Mines and Minerals Division

Correspondence ID: 10958

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17192

Date Correspondence Sent: June 16, 1997 Assessor: Steve Beneteau

Transaction First Claim

Number Number Township(s) / Area(s) Status Approval Date

W9710.00038 1160894 MANROSS Approval After Notice June 16, 1997

Section:

12 Geological GEOL

9 Prospecting PROSP

14 Geophysical MAG

All deficiencies associated with this work report have been corrected. Accordingly, assessment credit has been approved as outlined on the original Report of Work form accompanying this submission.

Correspondence to:

Recorded Holder(s) and/or Agent(s):

Mining Recorder

ALASDAIR JAMES M. MOWAT

Kenora, ON

KEEWATIN, ONTARIO

Resident Geologist

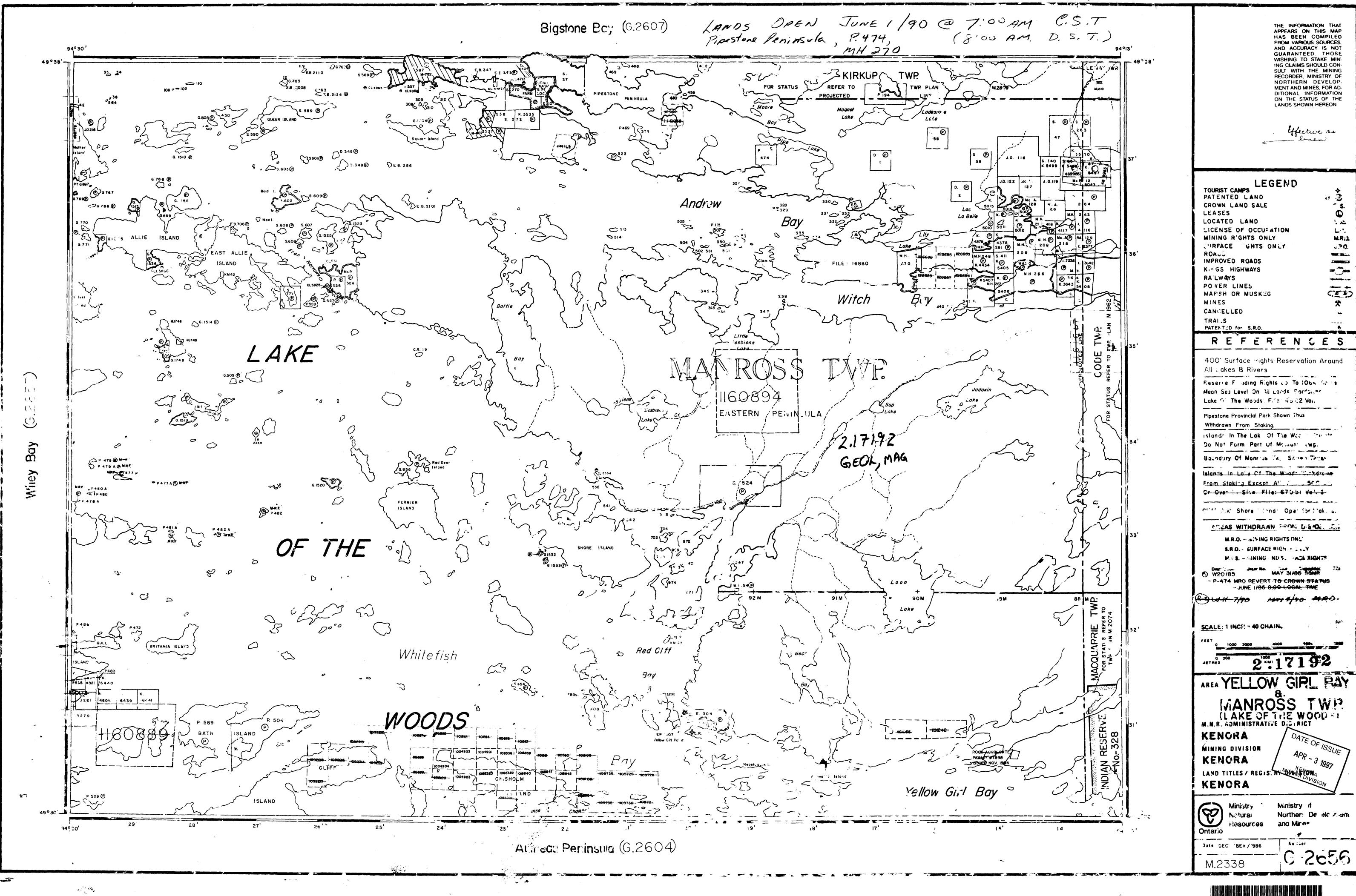
JAMES HUBERT WILLIS

Kenora, ON

KEEWATIN, Ontario

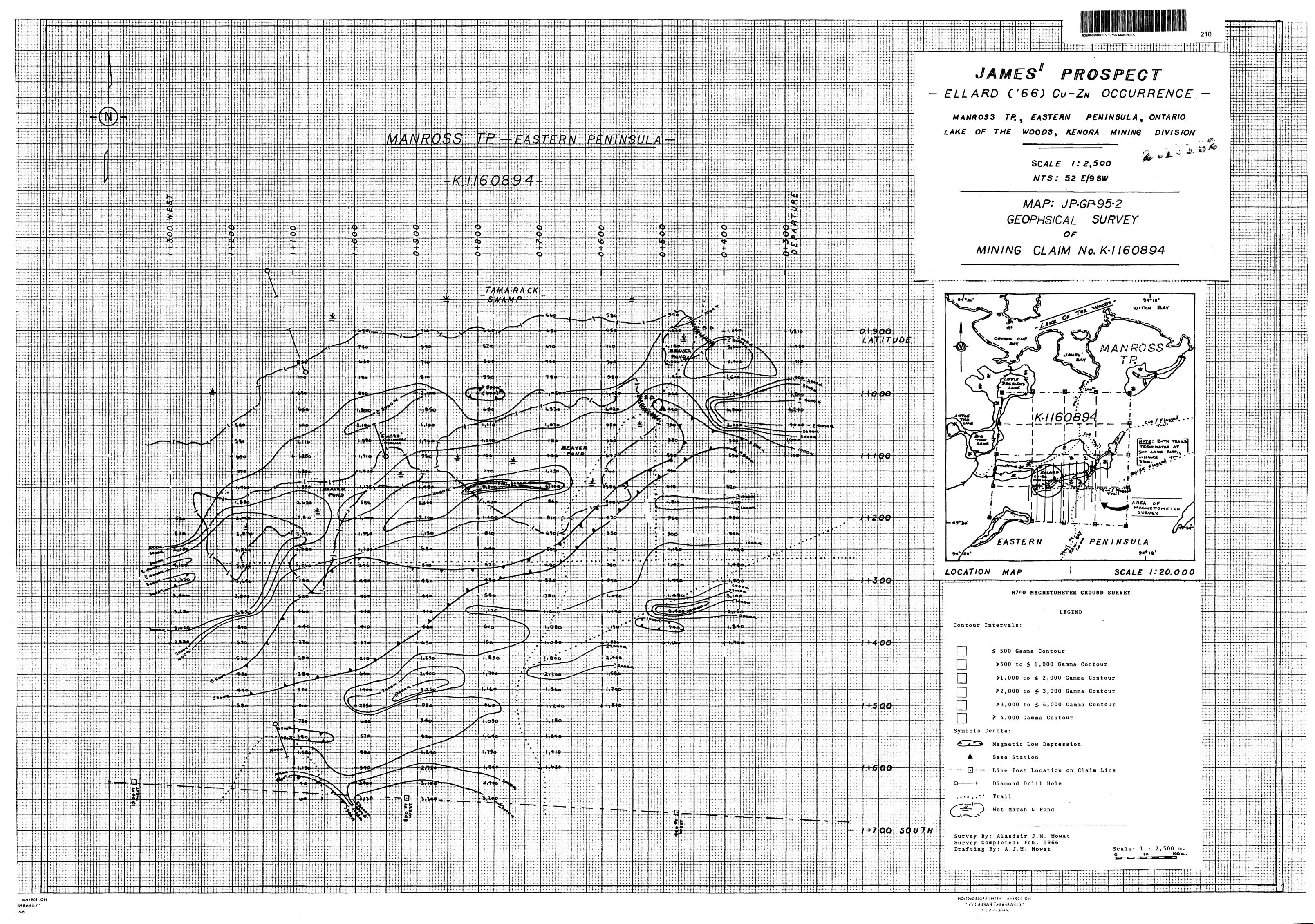
Assessment Files Library

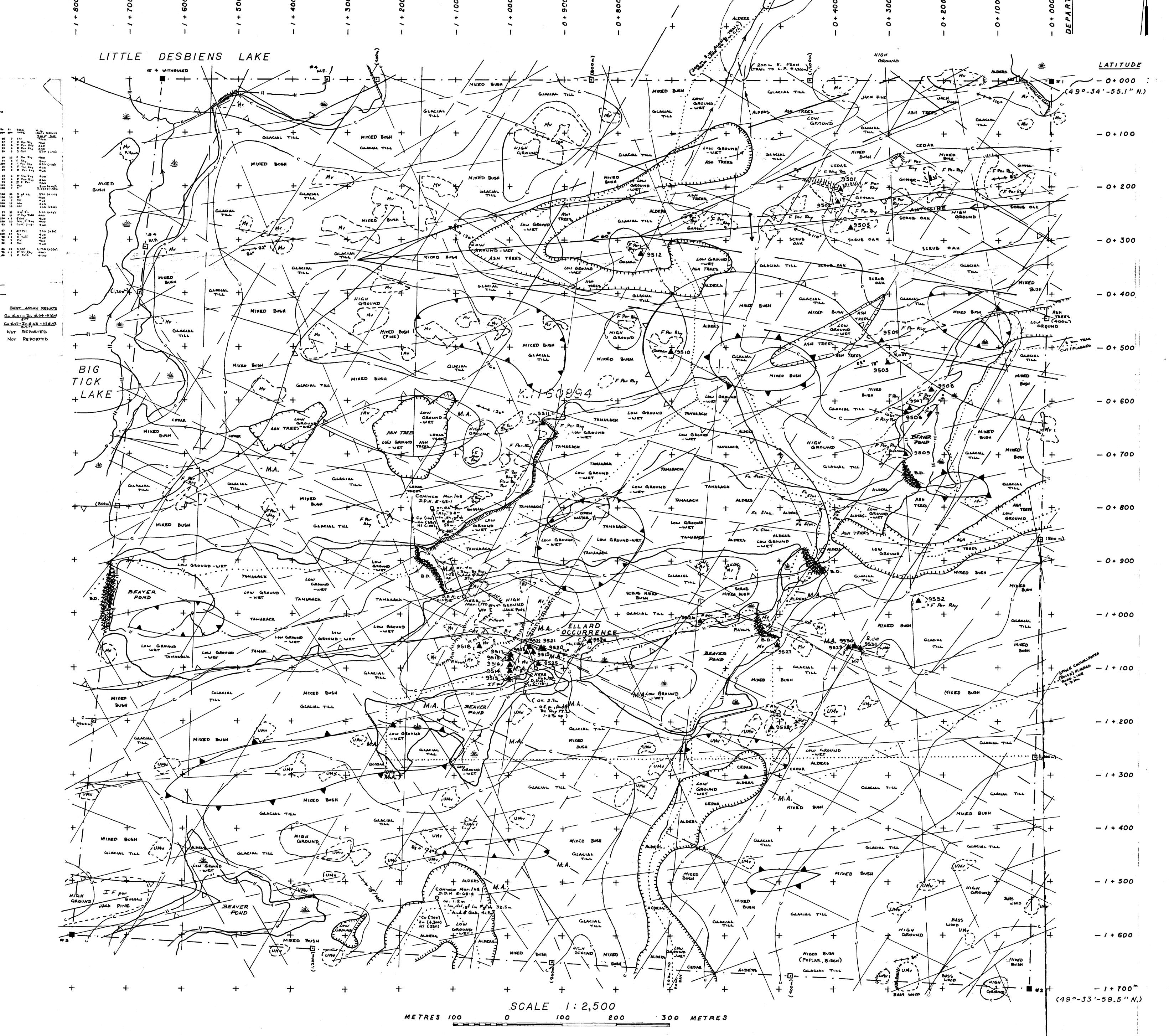
Sudbury, ON



THE O







COMINCO MAR. 168 1+528 - 1+132 STO"E -45" 249FT

KERR ADD. MAR. 170 0+965 - 1+082 N 20°W -45° 338 FT

L.O. T. W. + JAMES BAY -

JAMES PROSPECT - ELLARD ('66) CU-ZN OCCURRENCE -

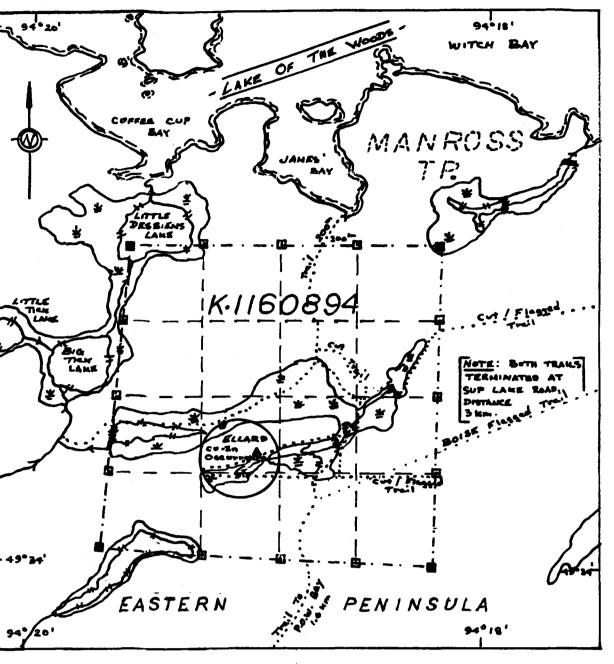
MANROSS TP., EASTERN PENINSULA, ONTARIO LAKE OF THE WOODS, KENORA MINING DIVISION

> SCALE 1: 2,500 NTS: 52 E/9 SW

MAP: JP·GL·95·I GEOLOGICAL SURVEY

MINING CLAIM No. K.1160894

52E08SW0003 2 17192 MANROSS



LOCATION MAP SCALE 1:20,000

LEGEND

PRECAMBRIAN

ARCHEAN FELSIC INTRUSIVE ROCKS

IF PORPHYRY

METASEDIMENTARY ROCKS

S.cht CHERT, SILICEOUS SILTSTONE

FELSIC METAVOLCANIC ROCKS

F POT Rhy - PORPHYPITIC RHYOLITE DACITE FLOWS
F Rhy /BY - MASSIVE RHYOLITIC PACITIC FLOWS / BRECCIA

MAFIC TO INTERMEDIATE METAVOLCANIC ROCKS (ANDESITIC TO BASALTIC)

MY MASSIVE TO PORPHYRITIC # PILLOWED FLOWS

ULTRAMAFIC METAVOLCANIC ROCKS
(BASALTIC TO BASALTIC KOMATILITIE)

SYMBOLS DENOTE

UMV MASSIVE TO PORPHYRITIC # PILLOWED FLOWS

ABBREVIATIONS

ANDESITE

BASALT

(800 m)

BRECCIA RHYOLITE

DOLOMITE

GABBRO

GRAPHITIC LIMESTONE

GRAPHITIC SHALE

LIMESTONE

GUARTE FELOSPAR PORPHYRY

RHYOLITE

METRES

B.D...... BEAVER DAM

Km KILOMETRE

L.O.T.W..... LAKE OF THE WOODS

D.D.H...... DIAMOND DRILL HOLE

OV...... OVERBURDEN

MAG..... MAGNETIC

P.P.D.... FARTS PER MILLION

GZ GOSSAN ZONE

WET MARCH AREA

LOCATION OF D.D.N.

LINEAMENT

GEOMAGNETIC HIGH

CONTACT BETWEEN MAG.

HIGH # LOW

GEOMAGNETIC LOW

DIRECTION OF PLUNGE # DIP

DIRECTION OF BEDDING STRIKE

E DIP

DIRECTION OF SHEAR - VEETICAL

200

CU (900)

ELEMENT REPORTED IN PARTS PEI

BILLION

MAGNETIC ATTRACTION

ANTICLINE WITH PLUNGE

SCALE 1:1,000

| Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | Martin | M

ELLARD ('66) CU - Zn OCCURRENCE
REPORTED! TWO CHIP SAMPLES RETURNED 1.25% CU ACROSS
12 FEET AND 1.49% CU ACROSS & FEET ON EITHER SIDE OF
A PIT BLASTED ACROSS A COPPER BEARING CHERT ZONE."

FIELD SURVEY BY: A. MOWAT & J. WILLIS, GEOTECHNICIAN

DWG. BY: A. MOWAT - (1) / (2) / DATED: JAN 19