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MINING LANDS SECTION

KENORA GOLD PROJECT
COMBINED AREA CLAIMS
(TERRELL OPTION)
GEOLOGICAL AND TRENCHING REPORT

Phillips Township
District of Kenora, Ontario
for
Sherritt Gordon Mines Limited
by
Robert H. Morse, Ph.D., P.Eng.
D. Glenn Harder, B.A., B.Sc.

December 23rd 1980

SUMMARY

Four claims comprising the Terrell option near the old Combined prospect have been thoroughly prospected and sampled and mapped geologically. The northwest corner of a new claim to the southeast of this group has been similarly examined. The Combined prospect is not on the Terrell claims.

The only values higher than trace are from trench 2 on claim 560585 where two muck samples ran .06 and .02 over a length of 4 metres each for an average of .04 over 8 metres. Chip samples from the bottom of the trench (where the muck came from) ran only trace, however.



Respectfully submitted,

Robert H. Morse, Ph.D., P.Eng.

D. Glenn Harder, B.A., B.Sc.

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December 23rd 1980

DESCRIPTION OF CLAIMS

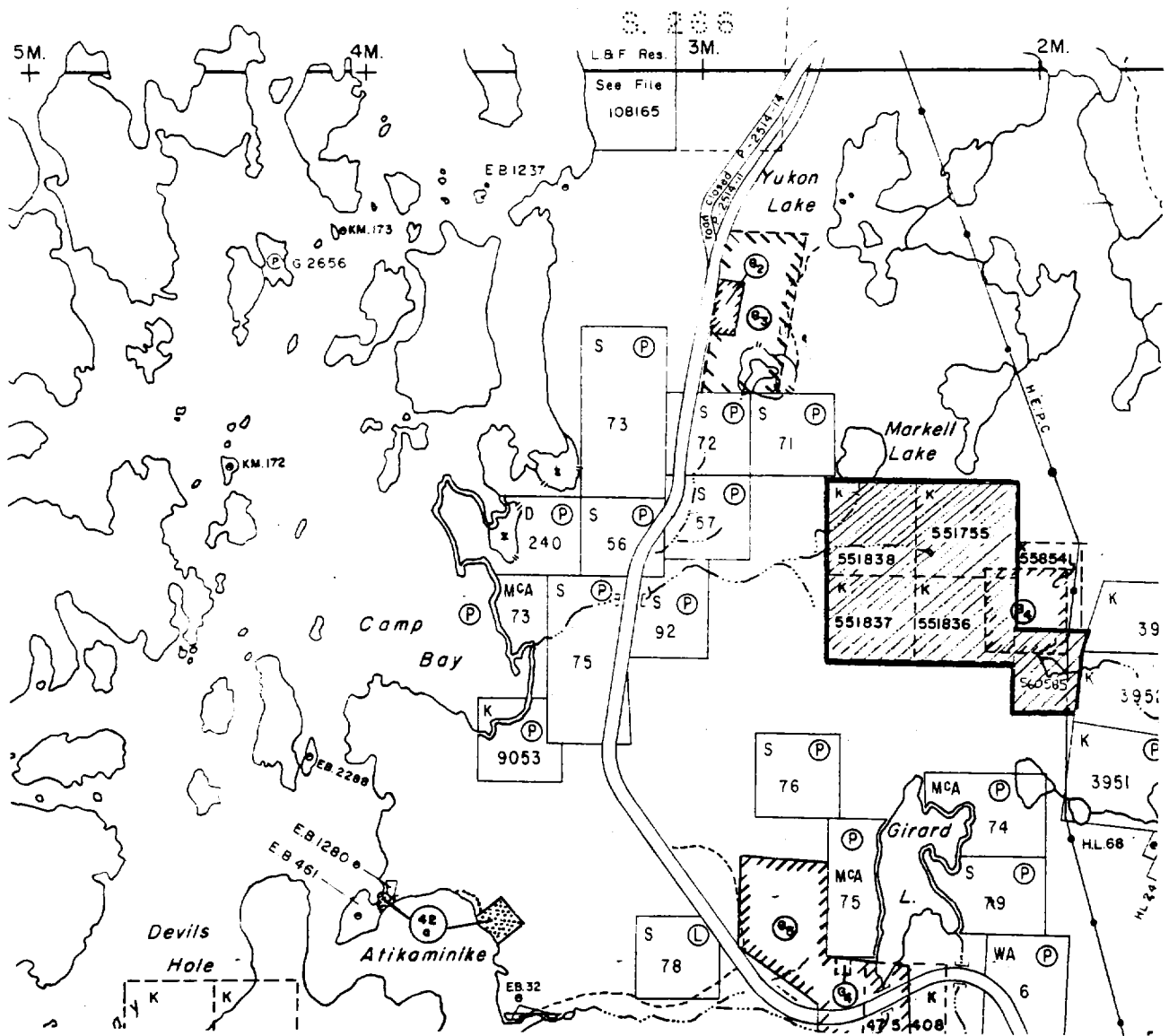
The property consists of five unpatented mining claims in Phillips Township adjacent to the Combined Prospect. The claim numbers are K551836, K551837, K551838, K551755 and K560585. The first four claims were staked by Michael A. Terrell, Skead, Ontario, recorded March 26 and 31, 1980, and optioned to Sherritt Gordon Mines Limited. The option agreement was made on the understanding that the property included the old Combined workings. These workings, however, lie 200 metres to the east of the subject claims on claim number K558541. The fifth claim, to the south of the Combined, was staked for Sherritt Gordon and recorded in October, 1980.

The property is located in the north central part of Phillips Township, about a mile east of Highway 71 (see Figure 1). A bush road from Highway 71 provides access by car to the centre of the property

PREVIOUS WORK

To the writers' knowledge no record exists of any previous exploration on the property. No doubt some prospecting was carried out around the turn of the century in connection with developments at the Combined. Recent logging has resulted in new rock exposures including quartz

Figure 1 Location Map



Phillips Township

veins that had never been sampled.

Two shafts were sunk at the Combined, one to 101 feet and one to 45 feet, together with 316 feet of drifting. Milling of 37 tons reportedly gave a recovery of 0.33 ounces per ton. Evidently no work has been carried out on the Combined since the early part of the century.

PRESENT WORK

Work on the property by R.H. Morse & Associates Ltd. on behalf of Sherritt Gordon Mines Limited began October 20 and terminated November 3, 1980. The work consisted of geological mapping, prospecting, rock trenching and sampling.

Control for the exploration surveys was by reference to air photos and to a new system of cut lines. The latter comprises an east-west base line chained in segments along the road for a distance of 415 metres and cross lines totalling 370 metres. More detailed control was by pace and compass.

GEOLOGY

The area was mapped geologically by Fraser in 1937 (O.D.M. vol. LII, Part IV, 1943, Map No. 52c). The property is underlain mainly by Keewatin intermediate to basic

volcanic rocks of the Whitefish Bay Greenstone Belt.

Detailed mapping in 1980 by D.G. Harder revealed these volcanic rocks to be intruded by a granite-felsite unit and by diabase.

The oldest rocks on the property, the Keewatin, comprise dark green meta-basalt, mainly pillowed and locally schistose. The strike is 020° and the dip vertical. Pillow tops, where observed, point to the west.

Intrusive into the Keewatin basalt is a granite unit, medium grained, mainly pinkish feldspar with lesser amounts of quartz and minor mafic minerals. A very fine grained pink to gray felsite consisting of feldspar and quartz is associated with the granite intrusions.

Quartz veins, up to 10 metres wide, are common on the southeast portion of the claim group. The vein material is mainly bull quartz. At trench 2 minor pyrite occurs, along with chalcopyrite, iron carbonate, fine grained gold coloured mica and local malachite stain. Small lenses and veinlets of quartz are common elsewhere on the property.

A magnetic diabase dyke, 50 metres wide, trends northwesterly across claim 551837.

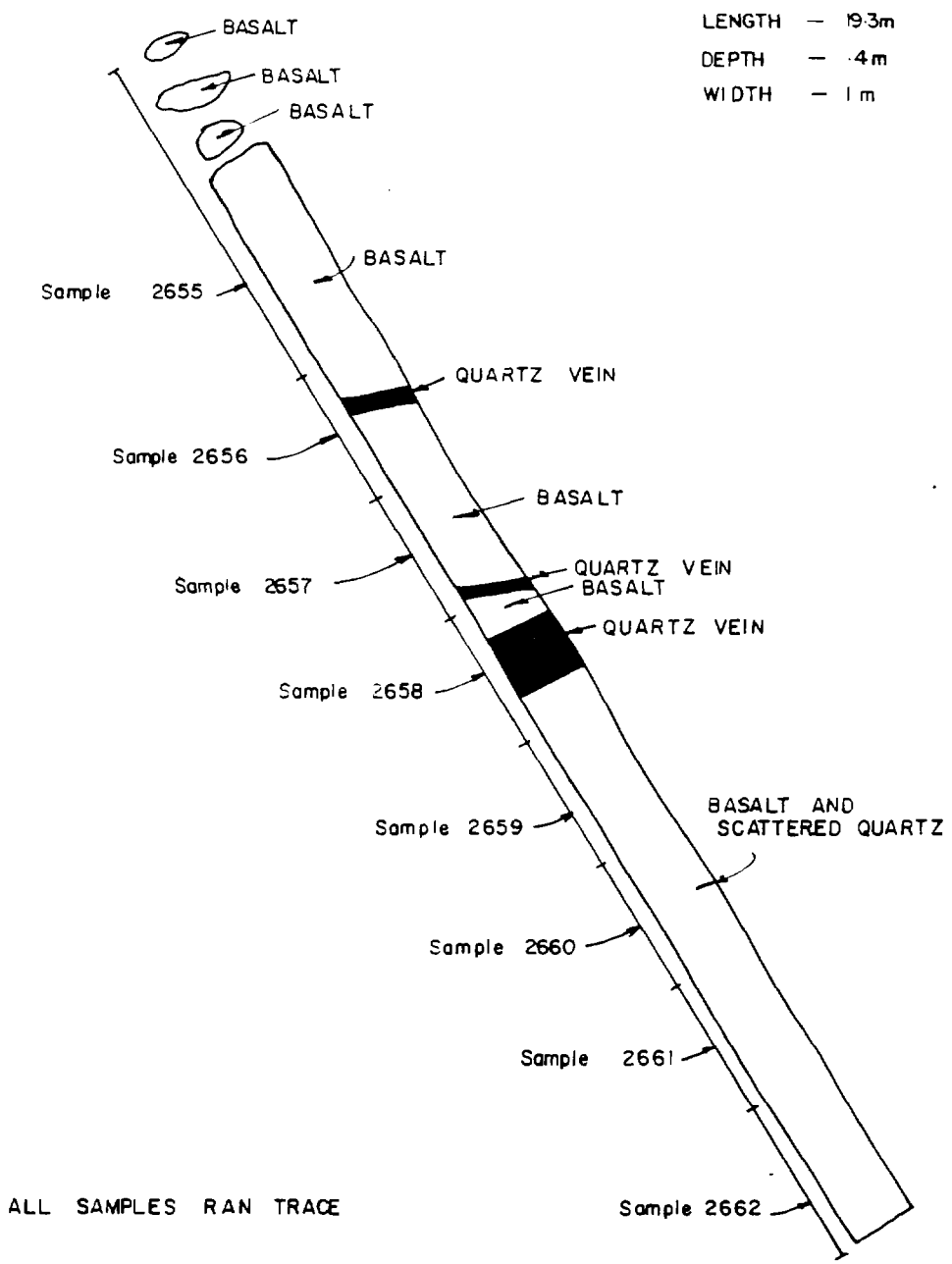
TRENCHING, SAMPLING AND ASSAYING

Trenches were blasted into rock at five locations (see Figures 2 to 7). Sampling these trenches as well as other locations on the claims resulted in 52 samples. All the samples were assayed for gold and the results are presented on Figures 2 to 7.

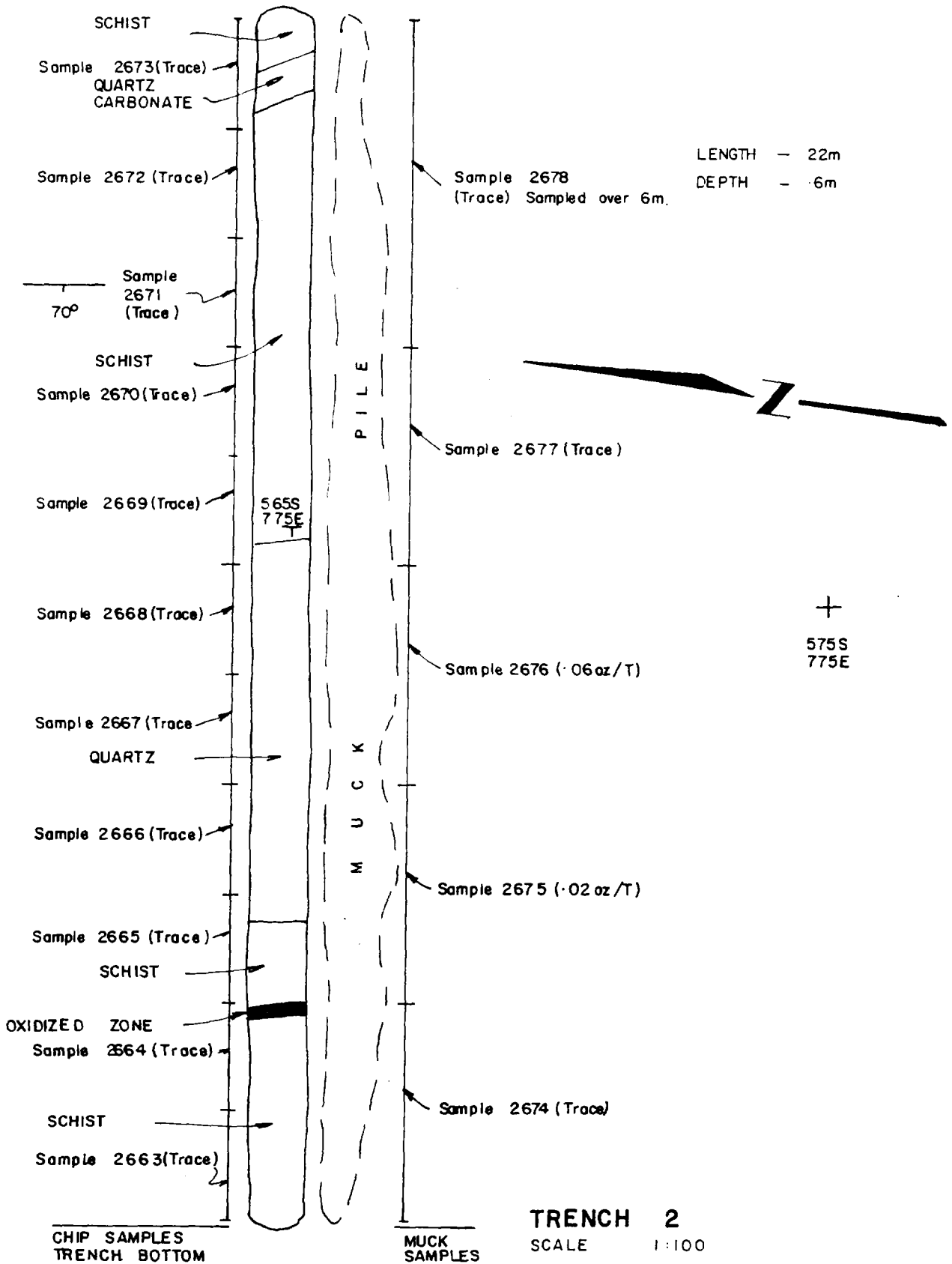
The only significant assays on the claims are from two muck samples from trench 2 on claim 560585 (Figure 4). These two samples ran .06 and .02 oz/T. Each is representative of 4 metres along the muck pile giving an average of .04 oz/T over a length of 8 metres. Chip samples from the bottom of the trench where the muck came from ran only trace, however. All the other samples on the property ran trace.

CONCLUSIONS

No economic concentrations of gold were found on the property. Potential for discovery of an orebody is best in the northwest corner of claim 560585 where some significant values were found in trench 2. Stripping with a bulldozer as well as further trenching in this area may be warranted.

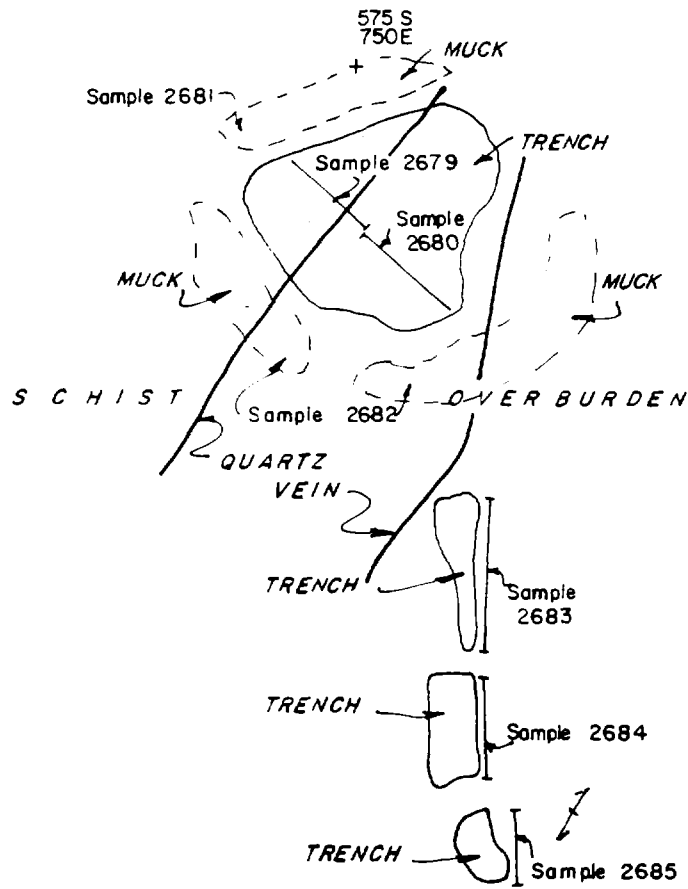


TRENCH 1
SCALE 1:100





LENGTH - 11m
DEPTH - 4m
WIDTH - Variable



ALL SAMPLES RAN TRACE

TRENCH 3
SCALE 1:100

FIGURE 6



LENGTH - 3 m
DEPTH - .5 m
WIDTH - .75 m

GO,725E

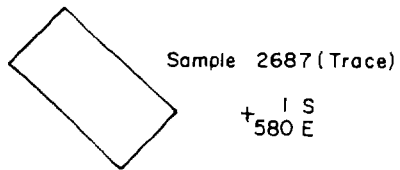
R
O
A
D

Sample 2686 (Trace)

TRENCH 4
SCALE 1 : 100



LENGTH - 2 m
DEPTH - 4m
WIDTH - 1 m



TRENCH 5
SCALE 1:100



File _____

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MINING LANDS SECTION

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

COMBINED AREA

Type of Survey(s) Geological

Township or Area Phillips

Claim Holder(s) Michael A. Terrell optioned to Sherritt
Gordon Mines Limited

Survey Company R. H. Morse & Associates Ltd.

Author of Report R. H. Morse D. G. Harder

Address of Author 298 Beech Ave. Box 1360

Covering Dates of Survey Toronto Deep River, Ont.
Oct. 20 to Nov. 3 1980
(line cutting to office)

Total Miles of Line Cut 785 metres

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
K	551836 ✓
K	551837 ✓
K	551838 ✓
K	551755 ✓

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS
per claim

ENTER 40 days (includes
line cutting) for first
survey.

ENTER 20 days for each
additional survey using
same grid.

- Geophysical
 - Electromagnetic _____
 - Magnetometer _____
 - Radiometric _____
 - Other _____
- Geological 40
- Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Jan. 14/81 SIGNATURE: *Robert H. Morse*
Author of Report or Agent

Res. Geol. _____ Qualifications 1, 1260

Previous Surveys
File No. Type Date Claim Holder

File No.	Type	Date	Claim Holder

V.D.

TOTAL CLAIMS 4

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____

Station interval _____ Line spacing _____

Profile scale _____

Contour interval _____

MAGNETIC

Instrument _____

Accuracy -- Scale constant _____

Diurnal correction method _____

Base Station check-in interval (hours) _____

Base Station location and value _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

Instrument _____

Method Time Domain Frequency Domain

Parameters -- On time _____ Frequency _____

-- Off time _____ Range _____

-- Delay time _____

-- Integration time _____

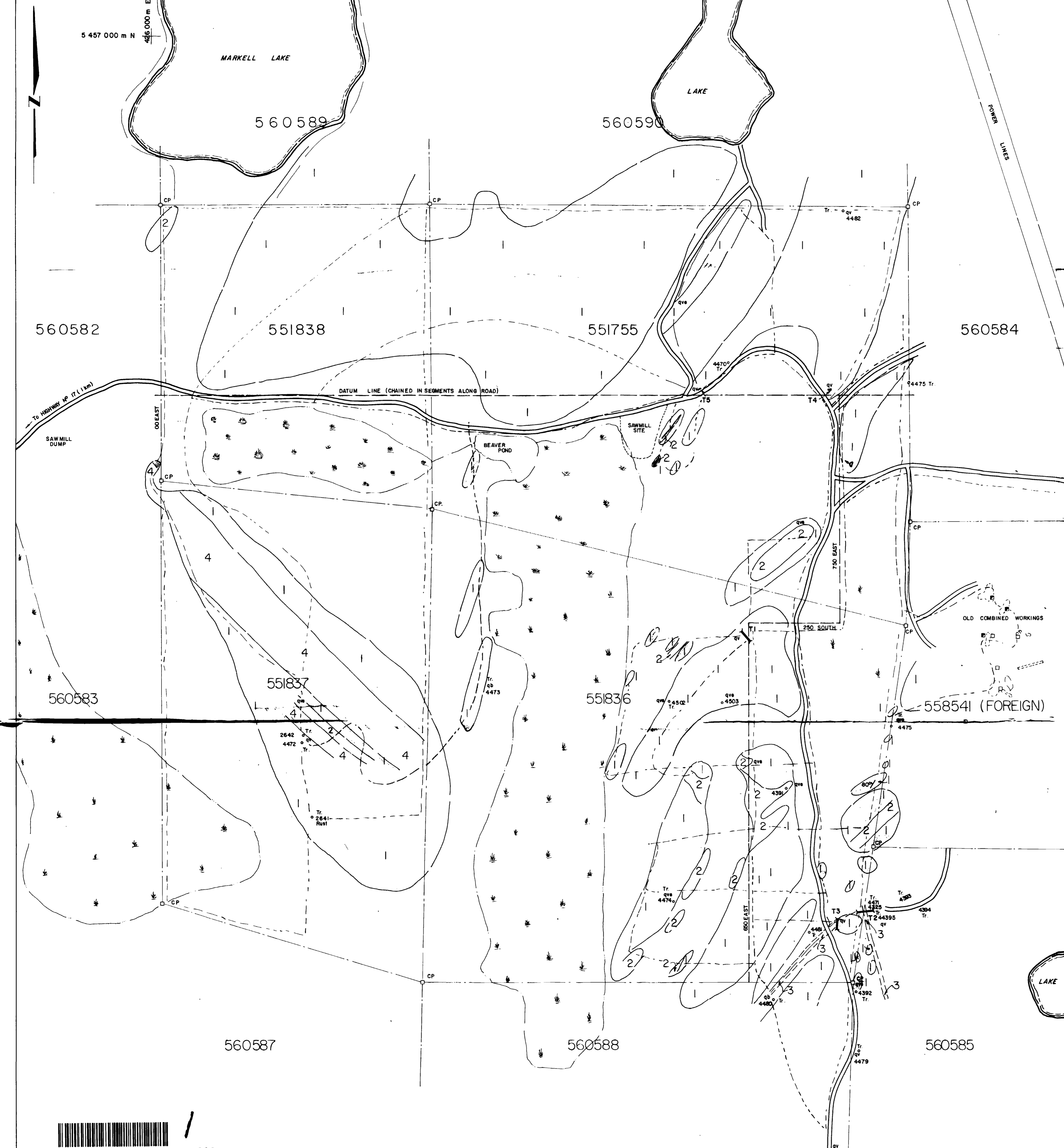
Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____

INDUCED POLARIZATION
RESISTIVITY



LEGEND

- 4 DIABASE
- 3 QUARTZ VEIN
- 2 GRANITE, FELSITE
- 1 BASALT, mainly pillowed, locally schistose, may include some diabase

- qv QUARTZ VEIN
- qve QUARTZ VEINLETS AND LENSES
- qb QUARTZ BOULDERS
- T4 TRENCH (1980)
- ⊞ SHAFT
- PIT
- 4503 SAMPLE, SAMPLE NUMBER
- 80° STRIKE, DIP
- CP CLAIM POST
- ⊞ PILLOW SHOWING TOP
- Tr. TRACE

- == ROAD
- ⊞ SWAMP
- ⊞ LAKE
- - - TRAVERSE LINES



R.H. MORSE & ASSOCIATES LTD
 FOR
 SHERRITT GORDON MINES LIMITED
KENORA GOLD PROJECT
 COMBINED (TERRELL OPTION)
 PHILLIPS TOWNSHIP, ONTARIO M2102 52E / 8 SE

GEOLOGY

