

Report on GEOLOGY OF DOUGALL CLAIMS - VINCENT TWP.INTRODUCTION:

Location: The Dougall group, consisting of 26 unsurveyed claims (TB 87462 - TB 87474 incl., TB 87704 - TB 87706 incl., and TB 87836 - TB 87845 incl.) is located in Vincent Township, District of Thunder Bay, 14 miles south east of the town of Beardmore.

The St. Lawrence Corporation has constructed a road leading south from Highway #17 at a point 7 miles east of Beardmore to permit access to their timber limits. This road crosses the centre of the claim group.

The claims were acquired partly by reason of their location along a known gold belt and partly because of several high grade gold intersections obtained on the original Dougall group by previous diamond drilling.

Topography: Although no great elevational differences occur, numerous prominent east-west scarps and valleys are present, and along north-south traverses the ground can be described as rugged.

The narrow, linear depressions between the numerous **outcrops** are usually swampy. The higher ground is heavily wooded with second growth spruce, balsam and poplar, some of which has been cut leaving extensive areas of slash.

Previous Reports and Work: Three geological reports are available on the general area:

- 1) O.D.M. Vol. 55, Pt. 2, 1936 by E.L. Bruce.
- 2) O.D.M. Vol. 37, Pt. 4, 1928 by G.B. Langford.
- 3) O.D.M. Prel. Rep. 1951-7 by P.A. Peach.

Dougall Gold Mines partially mapped and X-Ray drilled one of the showings some years ago.

GENERAL GEOLOGY:Table of Formations:

Pleistocene	-	Glacio-lacustrine sands Glacial boulder gravel
Pre-Cambrian	-	Algoman - Quartz-feldspar dykes, - Quartz veins
	-	Keewatin - Minor tuff & Agglomerates - Andesitic lavas (metamorphosed) - Narrow interbedded ferruginous quartzites ("iron formation")

The Dougall claims are underlain by Keewatin andesitic lavas with one quartz feldspar porphyry dike probable Algomian age.

The original nature of the lavas has been, for the most part, obliterated by alteration and shearing and now appear as a well chloritized greenstone. Several exposures of pillow lava give evidence of an original andesite to basalt. The grain size of the flows has been retained to a limited extent with the maximum alteration occurring in the finer grained portions. Top determinations could not be made with any degree of certainty.

The iron formation is a characteristic sugary quartz with varying amounts of magnetite; generally the iron formation ranges from quartzite to a lean iron formation. The original banding is distinct and rarely crenulated. The exposures ranged from 3 inches to 12 feet in width but could not be followed without a major interruption for any distance along strike. The andesite contacting the iron formation is usually medium to coarse grained on the north and fine grained on the south.

The iron formation is important for two reasons; firstly it is the best available horizon marker and secondly because gold values are found where it has been replaced by vein quartz. Rarely is any mineralization found in quartz which has not replaced iron formation.

The single quartz-feldspar porphyry dike together with numerous barren quartz-tourmaline veins, probably represent the Algomian period. These veins are a typical glassy, barren, white quartz with varying amounts of tourmaline and ranging from a few inches to 15 feet in width.

STRUCTURAL GEOLOGY:

The Dougall claims lie on the north limb of an anticline, fan shaped upwards, which lies south of the trough containing the later sediments. The regional strike is a few degrees north of east and the dip is steeply south. The whole appears to be overturned based on evidence of ~~granularity~~^{granularity} variation as noted on each side of the iron formation.

The whole area has been regionally sheared with some evidence of strike faulting as shown by intense shearing which can be followed for some distance. No evidence of cross-faulting was found.

Mineralization: The most common sulphide found was arsenopyrite followed by pyrite, pyrrhotite and chalcopyrite. The mineralization is almost completely confined to the quartz which intruded and replaced the iron formation; very rarely was any mineralization found in the quartz tourmaline veins.

The gold is found in the free state either separate from or associated with the sulphides. The evidence of the sampling to date tends to eliminate the possibility of gold being found in solid solution with the sulphides.

Work Done: Two periods of work have been done on the Dougall group; the first confined to the 16 claims TB 87462 to 74 incl., 87704 to 87706 incl., the second including the ten claims TB 87836-45 incl.

Picket lines at 400 foot intervals have been cut to cover the entire group for control for the magnetometer surveys and the 400 scale geological mapping. The base lines were run east west with the cross lines perpendicular to them. The original Dougall showing was crossed by picket lines at 100 foot intervals.

The magnetometer readings were taken at 100 foot stations along all the lines. Geological mapping on 400 scale was carried out along and between these picket lines. This mapping indicated that greater detail of the central portion was required so a line running N83E was cut from the west to the east boundary, crossing the original base line at 51+00W. An area extending approximately 500 feet on either side of this line was mapped on 100 scale with traverses at 100 foot intervals. The traverses were tied in at each end to the 400 foot interval picket lines and also where the base line was crossed.

Limited diamond drilling was carried out on quartz veins, between 49+00W and 36+00W.

Conclusions: The work done to date failed to locate any potential ore body other than the original Dougall showing.

206 Park Street,
Port Arthur, Ontario.
June 18th, 1958.


K. F. O'Flaherty.



42E12NE0218 63.963 VINCENT

020

Report on MAGNETOMETER SURVEY - DOUGALL CLAIMS:

INTRODUCTION:

Location: The claim group consists of 26 unsurveyed claims numbered TB 87462 to TB 87474 incl., TB 87704 to TB 87706 incl., and TB 87836 to TB 87845 incl. It is located 14 miles south-east of Beardmore in Vincent Township in the Mining District of Port Arthur. A logging road extends south from provincial highway #11, at a point 7 miles east of Beardmore, and crossed the property.

Topography: Although no great elevational differences occur, numerous prominent east-west scarps and valleys may rise to a height of 75 feet and hinder north-south traverses.

The narrow, linear depressions between the numerous outcrops are usually swampy. The higher ground is wooded with second growth spruce, balsam and poplar, some of which has been cut for pulp leaving extensive areas of slash.

Geological Summary: The area is underlain by Keewatin type andesitic lavas and narrow bands of iron formation. Gold bearing quartz veins replace the iron formation to a variable extent as well as being found apart from it. The iron formation is the only reliable horizon marker to be found.

Magnetometer Survey: A magnetometer survey was done on the property to:

- 1) Assist in the geological interpretation of structure.
- 2) Define the favourable iron beds.

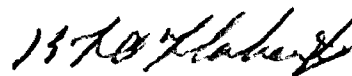
The instrument used was a Sharpe D2 vertical variometer having a scale factor of 20.0 gammas per scale division.

Base stations were established at camp and along the base line and hourly readings obtained so that a true magnetic value for each station could be obtained from the resulting diurnal curve.

A total of 1278 observations were made, not including repeat and check readings. Observations were normally made at 100' intervals but in some cases, anomalous areas were detailed with 25' readings.

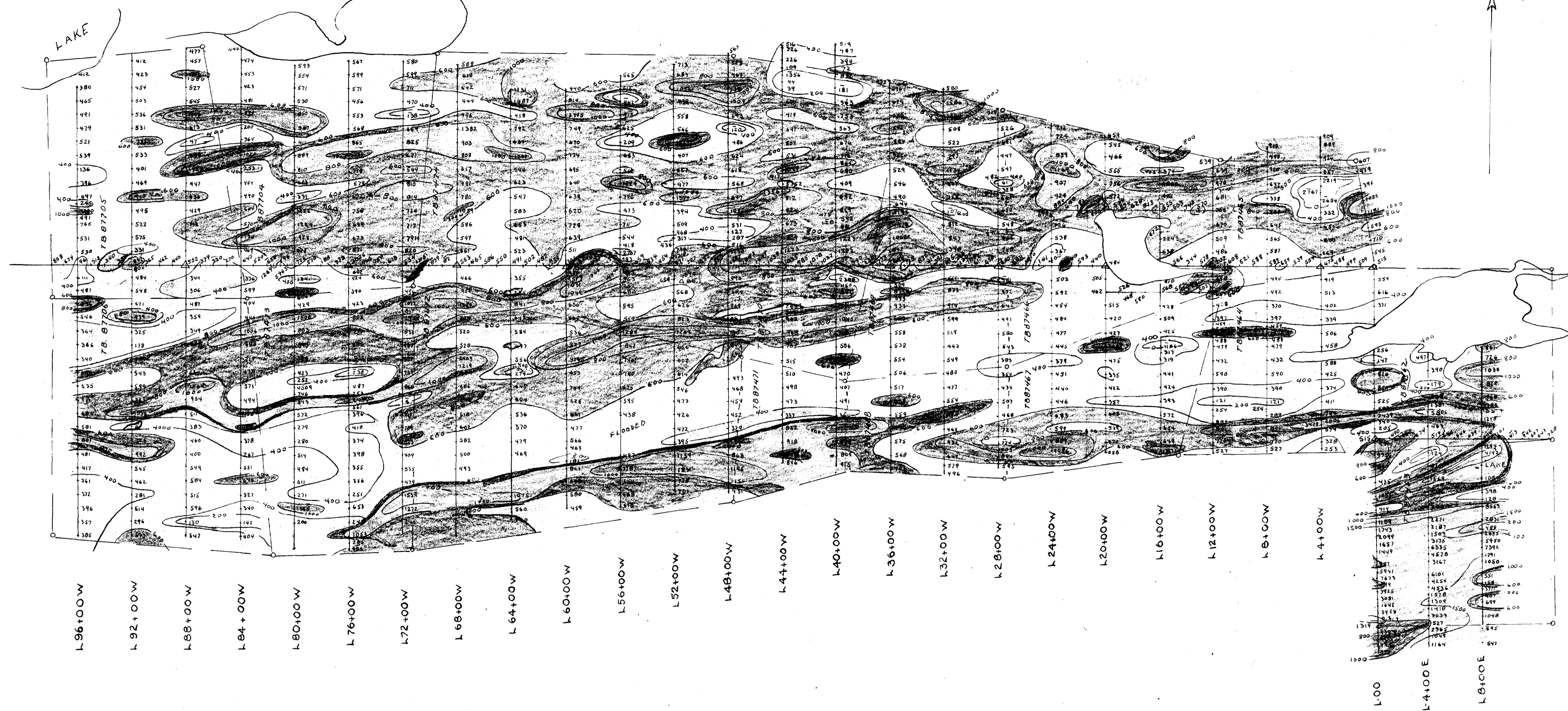
Interpretation: Several narrow magnetic anomalies which strike slightly north of east were found on the claims and probably represent the iron formation. Generally the magnetic contours suggest an area underlain by volcanics with a moderate variation in the amount of magnetite present. There does not appear to be much contortion such as drag folding and there isn't any suggestion of any northerly striking feature such as a cross-fault or diabase dike.

206 Park Street,
Port Arthur, Ontario.
June 18th, 1958.

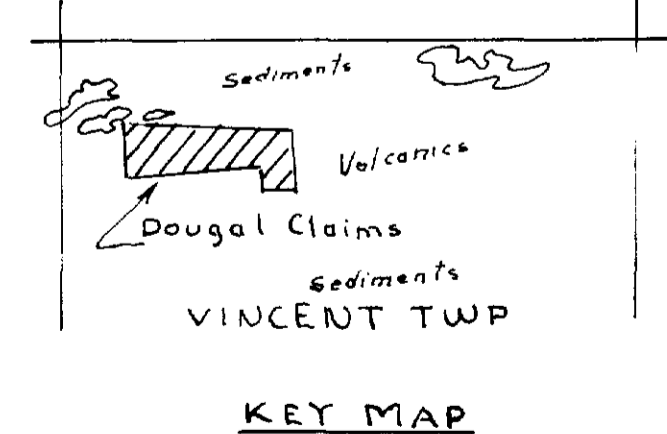


K. F. O'Flaherty.

N (Approx. True)



L 96+00W L 92+00W L 88+00W L 84+00W L 80+00W L 76+00W L 72+00W L 68+00W L 64+00W L 60+00W L 56+00W L 52+00W L 48+00W L 44+00W L 40+00W L 36+00W L 32+00W L 28+00W L 24+00W L 20+00W L 16+00W L 12+00W L 8+00W L 4+00E L 0+00E



- 1000 γ (plus)
- 800-1000 γ
- 600-800 γ
- 400-600 γ
- 200-400 γ
- 200 γ - minus

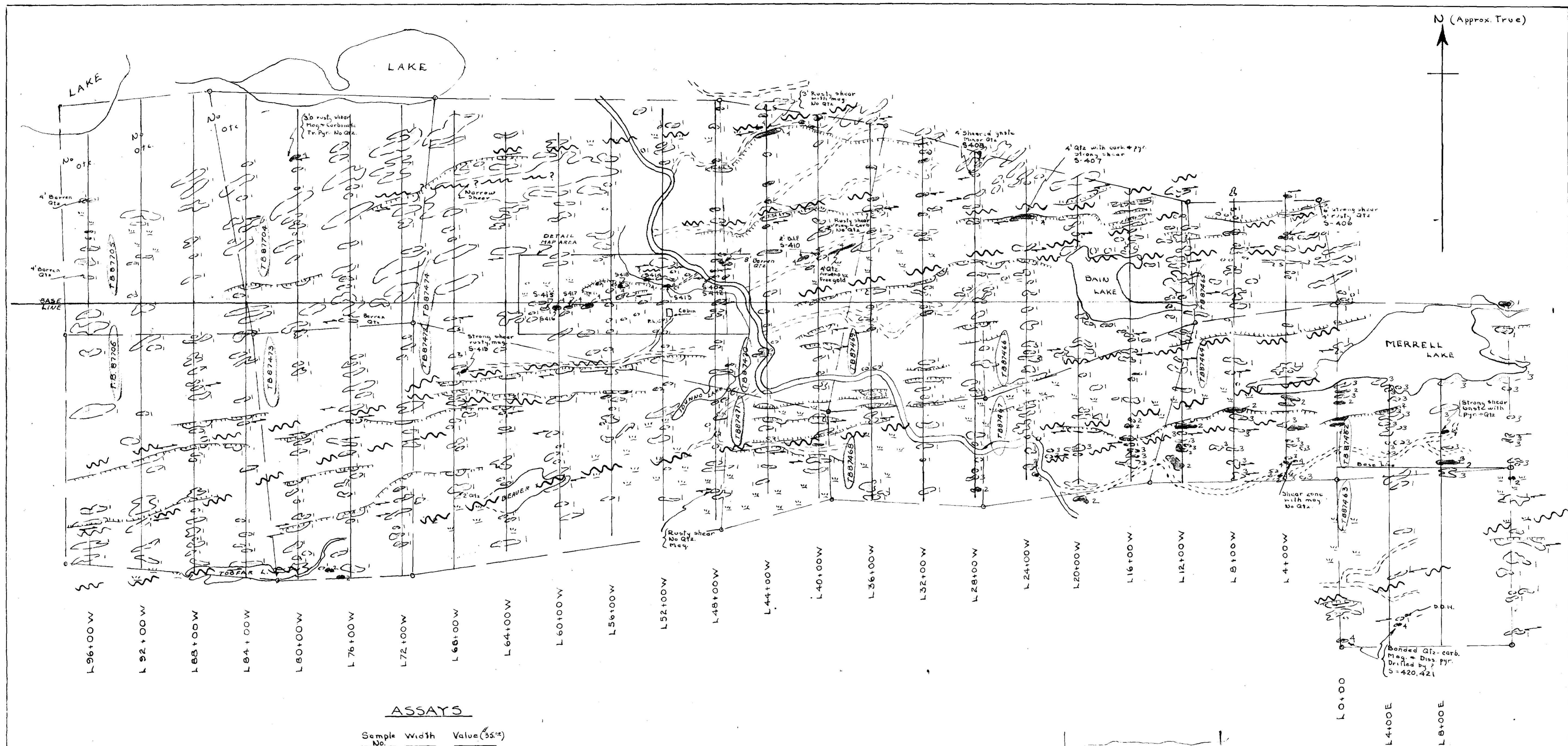
Survey by: J. Merrell
 With: Sharpe D2 Magnetometer
 S = 202

SO GEMINES DEVELOPMENT CO. LTD.
MAGNETIC SURVEY
 DOUGALL CLAIMS
 VINCENT TWP. ONT
 SCALE: 1" = 400' 30 AUG 1957



J. Merrell
H.A. Schubert

N (Approx. True)

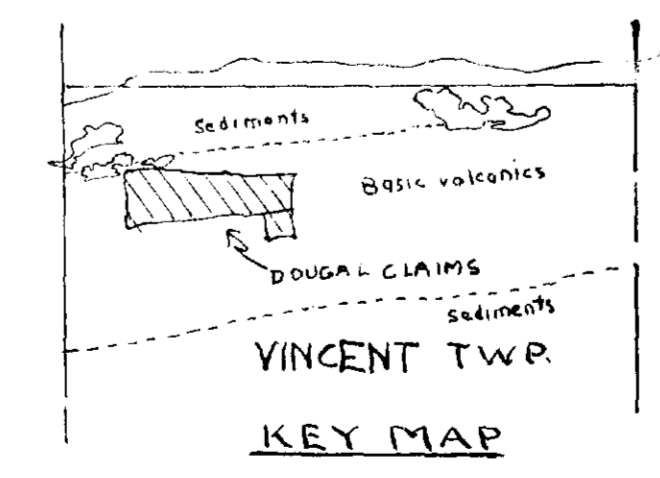


ASSAYS

Sample No.	Width	Value (35%)
404	Grab	80.85
406	10.0	8.40
407	4.0	0.70
408	4.0	Nil
410	3.6	Nil
411	4.0	Nil
412	4.0	Nil
413	0.10	1.75
414	0.10	Nil
415	5.6	13.30
416	5.0	Tr
417	7.0	Tr
418	2.0	Nil
419	4.0	1.05
420	2.5	Tr
421	4.5	3.50

LEGEND

- 1 [Symbol] Andesitic lava
- 2 [Symbol] Andesite - Secdy. Hb crystals (Meta-Dior)
- 3 [Symbol] Andesite - feldspathic
- 4 [Symbol] Mineralization - 1) Qtz-sulphides
2) Mag. + Carbonates
- [Symbol] Inferred fault
- [Symbol] Strong shearing
- [Symbol] Logging roads
- P.h. Pillow lava



**SOGEMINES DEVELOPMENT CO LTD
GEOLOGY**

DOUGALL CLAIMS

VINCENT TWP., ONT.

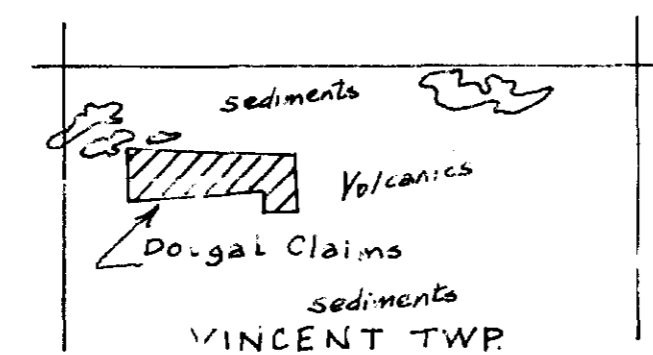
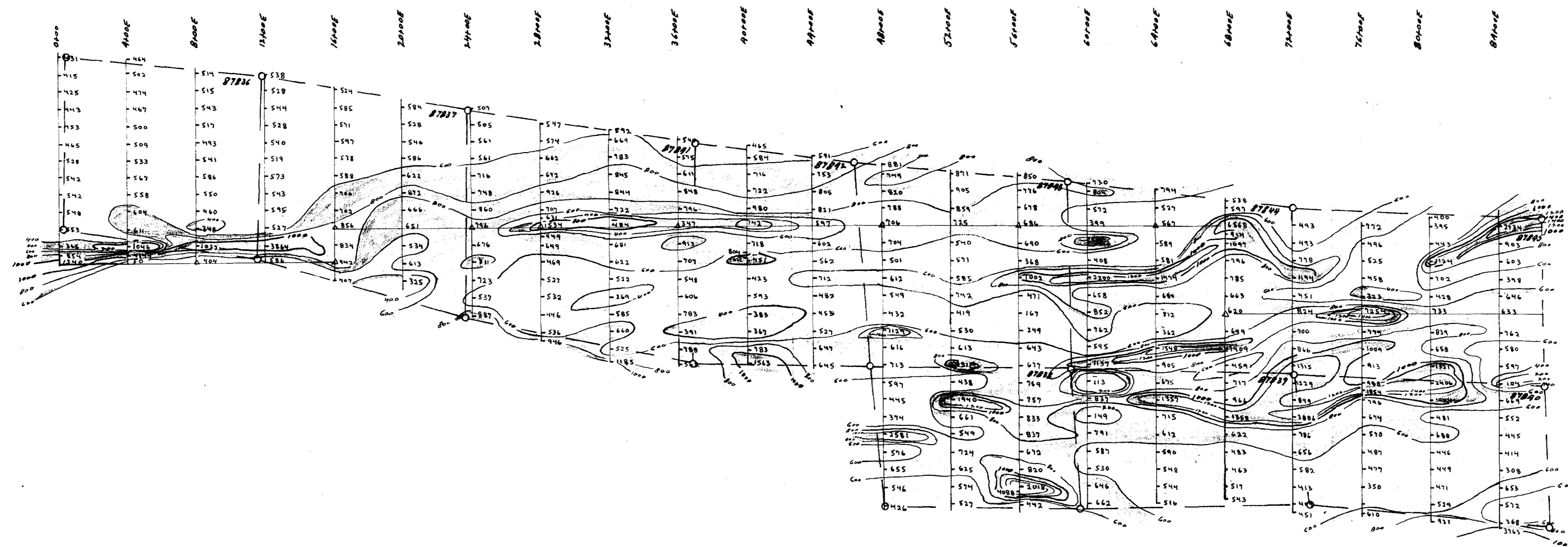
SCALE: 1" = 400' 24 Aug. 1957

GEOLOGY BY: A. BAIN

DWN BY: B. MIDDLETON



B.M. Middleton



KEY MAP

- 1000 γ (plus)
- 800-1000 γ
- 600-800 γ
- 400-600 γ
- 200-400 γ
- 200 γ - minus

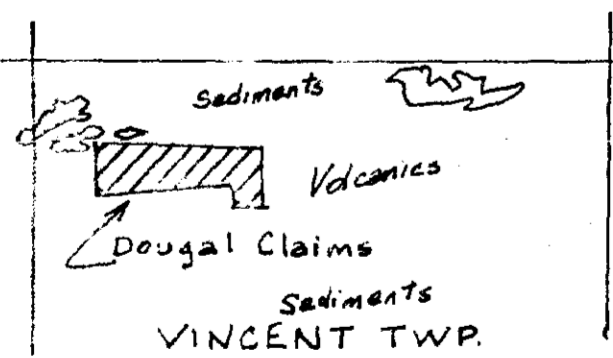
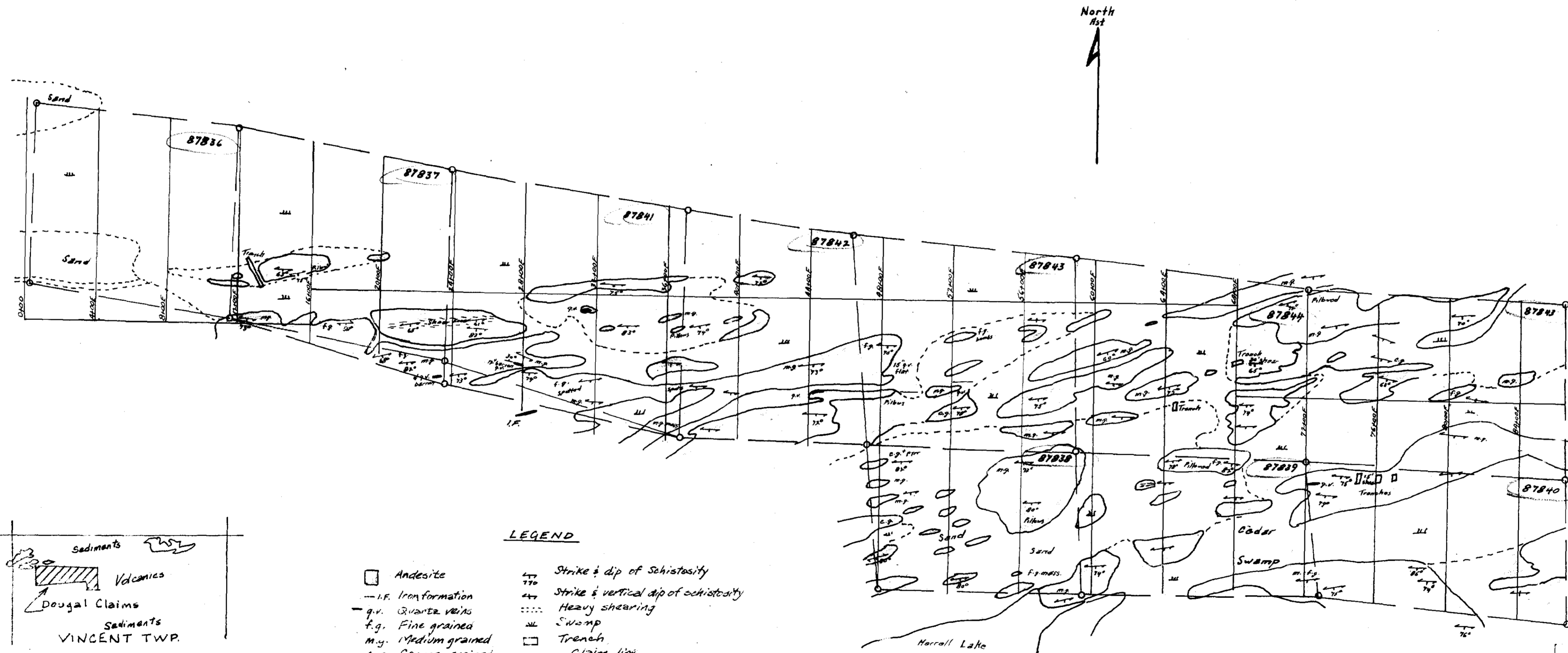
Survey by: H. Przybilla
 R. Pettit
 With: Sharpe D2 Magnetometer
 S = 202

SOGEMINES DEVELOPMENT COLTD
 MAGNETIC SURVEY
 DOUGALL CLAIMS
 VINCENT TWP. ONT.
 SCALE: 1" = 400' 12 JUN 1958

H. Przybilla



42E12NE0218 63.963 VINCENT

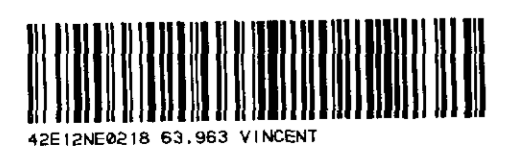


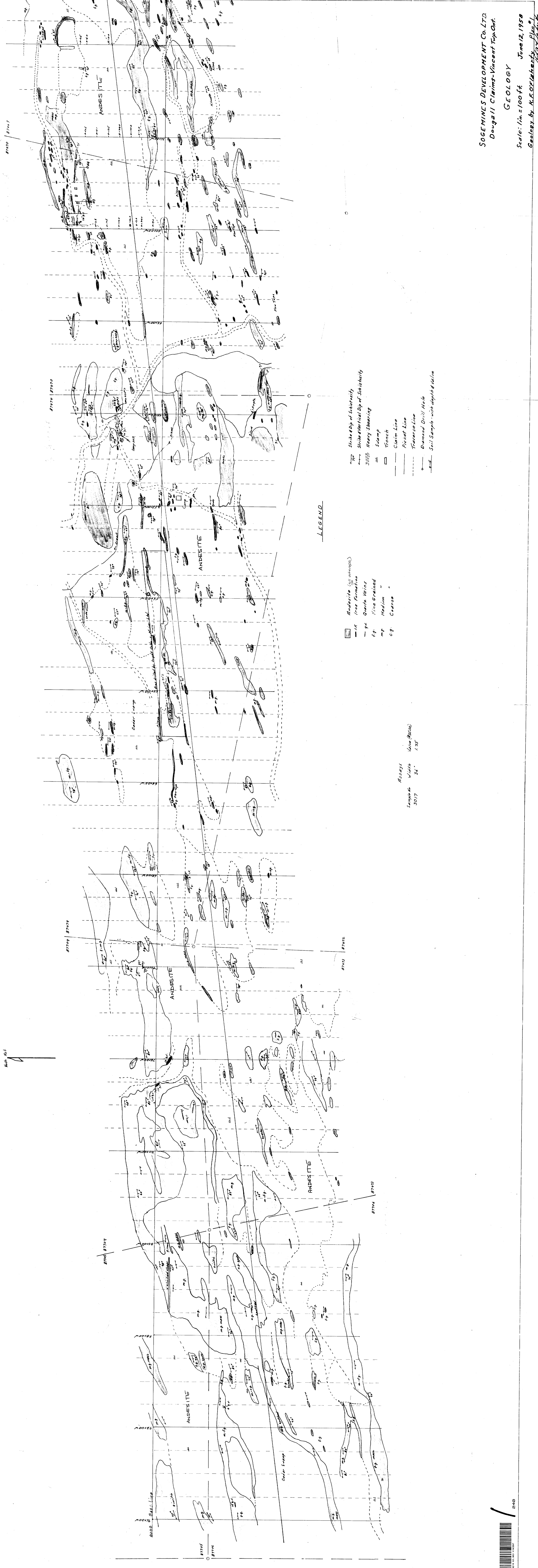
KEY MAP

- LEGEND**
- Andesite
 - I.F. Iron formation
 - q.v. QUARTZ VEINS
 - f.g. Fine grained
 - m.g. Medium grained
 - c.g. Coarse grained
 - Strike & dip of Schistosity
 - Strike & vertical dip of schistosity
 - Heavy shearing
 - Swamp
 - Trench
 - Claim line
 - Picket line

SOREMINEK DEVELOPMENT CO. LTD.
 GEOLOGY
 DOUGALL CLAIMS
 VINCENT TWP., ONT.
 SCALE: 1"=400' 12 June 1959
 GEOLOGY BY: K. B. DELANEY

K. B. Delaney

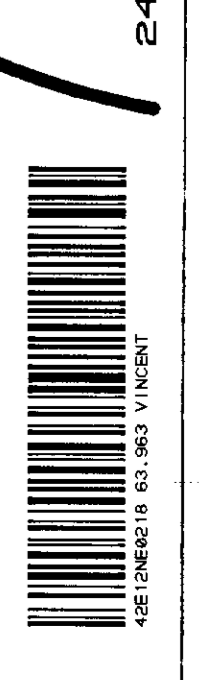


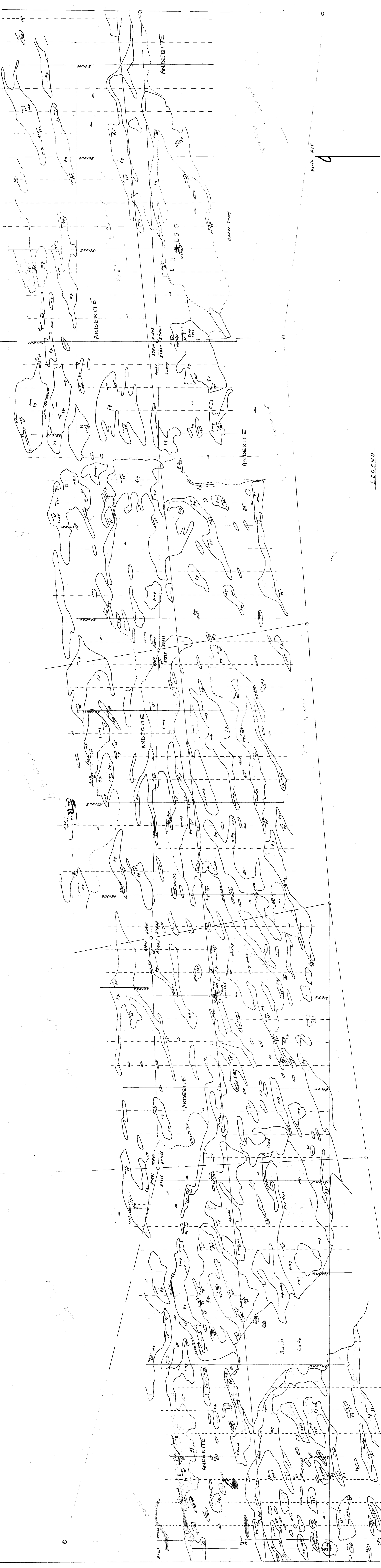


LEGEND

- Andesite (all outcrops)
- 1/4' Basaltic Lava
- 94' Quartz Veins
- 95' Fine Grained
- m.g. Medium "
- c.g. Coarse "
- Strike & Dip of Schistosity
- Strike (Vertical Dip of Schistosity)
- Heavy Shearing
- Stamp
- Trench
- Claim Line
- Picnet Line
- Trench Line
- Diamond Drill Hole
- Soil Sample - with depth of hole

Assays
 Sample No. 3017
 Width 36"
 Volume (Gross) 1.25





- Strike Dip of Substratum
- Strike of Vertical Dip of Substratum
- Heavy Shearing
- Swamp
- Trench
- Claim Line
- Picket Line
- Traverse Line

- Andesite (all outcrops)
- Iron Formation
- Quartz Veins
- Fine Grained
- Medium
- Coarse

LEGEND

Sample	Wings	Van(Fe)Ca
2001	18	0.17
2002	24	0.17
2003	24	0.17
2004	24	0.17
2005	24	0.17

