

OM 86-5-C-106

63.4903



42A10SW0047 63.4903 GERMAN

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MAGNETOMETER SURVEY
TOTAL FIELD AND VERTICAL GRADIENT
on the property of
G. K. STRINGER LTD.
German Township, Ontario

Timmins, Ontario,
July 21, 1986.

R. J. Bradshaw, P. Eng.
Geologist.

INTRODUCTION

As proposed in the writer's report dated June 12, 1986, a magnetometer survey has been conducted on the G. K. Stringer property along picket lines at 100 metre intervals.

Measurements of the magnetic total field and vertical gradient are plotted on accompanying maps at a scale of 1 : 300. A preliminary geological interpretation of the property is presented based on presently available data.

Currently an overburden drilling programme is underway on the property to acquire soil samples which will be examined and analyzed for gold and metal content in the search for a gold dispersal train. This work will be the subject of a separate report expected to identify targets for diamond drilling.

PROPERTY

The property, held by G. K. Stringer Ltd., consisting of 320 acres, includes the south halves of lots 3 and 4 in Concession I of German Township, Ontario.

LOCATION AND ACCESS

In southeast German Township the property is 38 kilometres east of downtown Timmins, Ontario.

Highway 101 traverses the area from east to west; and a series of gravel or sand roads provides excellent access to the various sectors of the property.

The boundary between German and Macklem Townships forming the south boundary of the property is cleared and marked by numerous survey points.

PREVIOUS WORK

No significant work has ever been completed on this property; however as previously documented (Bradshaw, 1986), Asarco drilled five overburden holes along the south boundary of the property in 1982. Positive results from samples in these holes largely account for the decision to proceed with the present programme.

GEOLOGY

The regional, local and economic geology is described in the writer's report of June 12, 1986.

Gold deposits in the immediate area are found in rocks south of the easterly trending Porcupine - Destor fault which bisects the property. These rocks include highly altered volcanics of the Tisdale Group and unaltered felsic intrusives.

The altered volcanic rocks consisting of a variety of intermediate to mafic schists are covered by very deep overburden ranging from 160 to 220 feet (49 to 67 metres) along the south boundary.

Asarco, operators of the previous overburden drilling programme, describe the bedrock chip samples as talc chlorite or quartz carbonate chlorite rock.

The present programme is comprised of nine holes in a line, parallel and about 100 metres north of the Asarco section. Four holes in the west half of the property have been completed. Hole 86-2 on Line 300 East, Station 0+75 North, stopped in talc chlorite carbonate schist containing better than 5% per cent pyrite.

EQUIPMENT AND SURVEY METHOD

The Scintrex MP-3 proton magnetometer used for the survey is a sophisticated, high resolution microprocessor based instrument. By varying the sensor configuration the same console can be used to measure both total field and vertical gradient with a resolution of 0.1 nT.

Two sensors connected to the console, are mounted on vertical staff. Measurements of the total field are taken from the lower sensor.

When the sensors are simultaneously energized the difference in the total magnetic field between the upper and lower sensor divided by the sensor separation of one metre yields the vertical magnetic gradient in gammas per metre.

Magnetic base stations were established along the base line

which coincides with the Township line, at 100 metre intervals. Thereafter diurnal variations of the total field measurements were corrected by regular readings of the appropriate base station.

MAGNETOMETER SURVEY RESULTS AND INTERPRETATION

The total field and vertical gradient magnetic measurements are plotted on the accompanying maps (Figures 1 and 2). On Figure 1 the total field data is contoured at 100 gamma intervals and on Figure 2 the vertical gradient values are profiled.

The isomagnetics generally trend in an easterly direction coinciding with the regional fabric and most of the relief, of about 700 gammas, is located in the south-central sector of the property.

Based on regional evidence, the major Porcupine - Destor fault is interpreted to approximately coincide with the 59000 gamma contour. An area of low magnetic relief north of the fault, is representative of fine grained laminated and massive sediments.

Highly altered rocks, equivalent to the Tisdale Group of volcanics, are known to be present south of the fault. The contrasting total field and vertical gradient measurements in the south-central sector of the property are indicative of differing rock types confirmed by overburden drilling.

The positive vertical gradient measurements are interpreted to represent most accurately the outline of a probable mafic altered rock. Based on tenuous evidence the intervening magnetic low area, commencing about 100 metres north of the base line - Township Line may host an easterly trending fault structure favourable to gold mineralization. The unassayed mineralization encountered in hole 86-2, on strike with this zone, is favourable to gold.

A better interpretation of the magnetic data can be made when the analyses of the overburden samples become available.

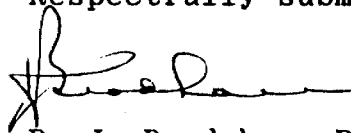
CONCLUSIONS AND RECOMMENDATIONS

The magnetic data indicates a complex of rock types in the south half of the G. K. Stringer property. More specifically the 59000 gamma contour corresponds to the expected position of the Porcupine - Destor fault.

A rock type represented by an area of positive magnetic gradient may be disrupted by an easterly trending fault zone approximately 100 metres north of the base line - Township Line.

Completion of the overburden drilling, now underway, and availability of the various analyses may substantiate the positioning of the above described structure. Recommendations concerning a diamond drill programme are dependent upon a joint study of the magnetic data and soil sampling results.

Respectfully submitted,



R. J. Bradshaw, P. Eng.,
Geologist.

July 21, 1986,
Timmins, Ontario.



42A10SW0047 63.4903 GERMAN

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OVERBURDEN DRILLING (R.C.) PROGRAMME
on the
G. K. STRINGER-LTD. PROPERTY
German Township, Ontario

Timmins, Ontario,
September 23, 1986

R. J. Bradshaw, P. Eng.
Geologist.



42A10SW0047 63.4903 GERMAN

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- 1 Plan of Overburden Drill Holes
- 2 Drill Hole Sections
- 3 Section showing Proposed Diamond Drilling



SHIELD GEOPHYSICS LIMITED

P.O. BOX 630 TIMMINS, ONTARIO P4N 7G2

MINING EXPLORATION CONSULTANTS AND CONTRACTORS

AIRPORT ROAD, TIMMINS, ONTARIO (705) 264-9405

G. K Stringer Ltd.,
P. O. Box 998,
South Porcupine, Ontario, P0N 1H0.
Attention: Mr. Ken Stringer

September 4, 1986.

Dear Ken:

Re: Overburden Drilling Programme
German Township Property

I have just received assay results for the bedrock samples from the eight holes recently completed on your property.

Hole 86-2 encountered a talc-chlorite-carbonate rock containing more than 5 per cent pyrite at a depth of 55.4 metres (182 feet). The bedrock sample for a width of one metre (3.28 feet) assayed 7780 ppb gold (0.23 oz. gold per ton).

This constitutes a valid gold discovery and merits a diamond drill investigation.

On receipt of the assay results from the overburden samples a formal report will be prepared which will propose a detailed programme for this discovery.

R. J. Bradshaw, P. Eng.


Geologist.

INTRODUCTION

The overburden drilling programme, herein described, was recommended in the writer's report, dated June 12, 1986, which provides a description of the regional, local, and economic geology of the area.

Also recommended was a magnetic vertical gradient survey. Results of this survey are described in a report dated July 21, 1986.

The overburden holes were drilled during the last two weeks of July, 1986. Selected samples of actual or quasi till material were processed by Overburden Exploration Services of Timmins. Heavy metal concentrates of the overburden samples were analyzed for gold by Bondar-Clegg in Ottawa.

PROPERTIES

Two properties in German Township of 4 and 8 claims were the subject of the writer's report, dated June 12, 1986. The overburden drilling was confined to the eight claim property, consisting of 320 acres, held by G. K. Stringer Ltd.

LOCATION AND ACCESS

The property, including the south halves of Lots 3 and 4, Concession I, is situated in southeast German Township, approximately 1.5 kilometres northeast of the Asarco gold mine. The claim group is 38 kilometres east of downtown Timmins, Ontario.

Highway 101 traverses the property from east to west and a series of dirt roads provide excellent access to the various sectors of the claim group.

PREVIOUS WORK

No significant work has been completed on the property;

however, as previously documented (June 12, 1986), Asarco drilled five reverse circulation holes along the south boundary of the property in 1982. Apparently positive results from samples in these holes largely account for the decision to proceed with the present programme.

OBJECT OF RECOVERY AND ANALYSES OF OVERBURDEN SAMPLES

It has been demonstrated that metal deposits that intersect the bedrock - overburden interface can be recognized and located by dispersal trains in the surficial deposits. These zones of anomalous metal values are generally found in glacial tills. The dispersal train may be recognized up to a mile away down ice.

A dispersal train representative of a gold deposit may contain high concentrations of gold and associated minerals, including arsenopyrite, sphalerite, pyrite and chalcopyrite. A valid dispersal train generally contains 10 or more gold particles in the heavy metal concentrate of the sample. Delicate gold particles, showing little effect from transport, are representative of a nearby source within 100 metres. The greater the effect of transport which ultimately results in a rounded grain, the further away the source.

The overburden samples are recovered by various methods including hand and mechanized digging, augers and sophisticated drilling methods. In this case a dual tube reverse circulation rotary drill rig supplied by Bradley Bros. was utilized. Samples of coarse grained material ranging from sand-gravel to till are sampled in quantities ranging from 5 to 7 kilograms. Thereafter the sample is screened, split and examined on a shaking table for gold particles (Table 1). Finally the heavy metal concentrate is assayed for gold and possibly associated metals.

Ideally anomalous gold values coincide with samples having greater than 10 gold grains. Most of the time, however, a few relatively coarse gold grains are found in samples with high

assays. This is attributed to the so-called nugget effect whereby one or two relatively large and erratic gold particles having a random distant source account for the anomaly. Alternatively the visible gold may be located in the unexamined split of the sample or perhaps the gold occurs as micron sized particles associated with a sulphide mineral.

Of the five holes drilled by Asarco along the south boundary of the Stringer property, holes AQ-82-2 and AQ-82-3 returned anomalous gold values in the till adjacent to bedrock. Holes AQ-82-4 and 5 returned anomalous values slightly higher in the overburden section. Laboratory results of a gold grain count for these samples were not available. However, high arsenic values, particularly in holes AQ-82-3 and 4, associated with the gold values suggested the presence of a valid dispersal train. Because of the proximity of the values to bedrock it was interpreted that the source would be within 100 metres to the north.

Holes on the Stringer property were therefore established 75 metres to the north of the tier drilled by Asarco along the township boundary. Object of this set of holes was to either confirm the Asarco results or isolate the apparent dispersal train and gold source between the two tiers of holes.

TREATMENT OF SAMPLES

A total of 58 overburden and 8 bedrock samples were forwarded to Overburden Exploration Services in Timmins. Those samples (38) which displayed extraordinary heavy minerals, including sulphides, when tabled were processed by super panning to determine the number and character of the gold grains.

The 58 samples of heavy mineral concentrates and 8 unconcentrated rock samples were shipped to Bondar-Clegg in Ottawa for assaying. Fire assays were performed on the bedrock samples and neutron activation on the heavy mineral concentrates.

RESULTS FROM SUPERANNING BY OES

Table 3 from OES displays the examination results for 38 samples, including two bedrock samples with high sulphide content. None of the samples contained a significant number of gold grains.

BEDROCK ASSAYS

Sample 02-03 assayed 7780 ppb gold (0.23 oz. gold per ton). This assay represents a sample about one metre deep starting at 55.4 metres in the hole.

The sample is logged as a talc-chlorite-carbonate rock with more than 5 per cent pyrite. The heavy metal concentrate, as described by OES, contains 85 to 95 per cent unoxidized pyrite, a trace of hematite and ilmenite. The remaining samples returned insignificant assays.

CONCENTRATE ASSAYS

Holes 86-1, 2 and 3 in the west sector of the property did not detect anomalous gold values in the concentrates of the overburden samples. The basal till sample from hole AQ-82-2 midway between and south of holes 86-2 and 86-3 contained 2130 ppb gold.

Four sample concentrates in hole 86-4 returned anomalous values in gold. Samples 2, 7, 8, and 9 returned assays of 3760, 946, 1750, and 1480 ppb gold respectively. Sample 2, from a depth of 45 metres, represents an upper, perhaps the Matheson till unit. Samples 7, 8, and 9 come from the basal unit, a clay till. All of these samples show better than 10 per cent pyrite in the concentrate and one grain of gold was observed in adjacent sample 04-10 which contained 580 ppb gold. The basal till sample in hole AQ-82-3, 75 metres south of 86-4, assayed 4500 ppb.

Only one of 14 samples in hole 86-5 is anomalous. The concentrate from sample 05-13 a clay till, one sample removed from the bedrock interface, assayed 7680 ppb. One comparatively large grain of gold and 15 per cent pyrite was observed in the concentrate.

There were no anomalous values detected in the samples of hole 86-6.

In hole 86-7 sample 3 returned 2270 ppb gold in a concentrate with 15 per cent pyrite and a trace of arsenopyrite and sphalerite. This sample comes from near the top of the basal unit, a clay till with cobbles. A sample from the same stratigraphic elevation, in hole AQ-82-5, southeast of hole 86-7, is strongly anomalous in gold, arsenic and nickel.

Sample 08-02, from an upper till unit substantially removed from the bedrock interface, assayed 1060 ppb gold.

CONCLUSIONS

Gold mineralization has been discovered in the southwest sector of the Stringer property as represented by the value of 7780 ppb (0.23 oz. gold per ton) in the bedrock sample of hole 86-2. Visible gold was not observed in the fine fraction of this pyritic talc-chlorite-carbonate rock thereby suggesting that the gold is intimately associated with the pyrite as micron sized particles. Diamond drilling will be required to determine the size, shape and attitude of the mineralized zone.

Anomalous gold values in the concentrates of the overburden samples apparently are not associated with criteria that is normally characteristic of a dispersal train. Specifically a significant number of gold grains were not observed. This aberration may be accounted for by the distribution of the gold primarily as micron sized particles in pyrite or other sulphides. Additional analytical work may be undertaken on the samples to possibly confirm the association.

The lack of gold values in the samples of holes 86-1, 2 and 3 suggest that the gold mineralized zone exists primarily

south of these holes. Gold values in the basal till samples of holes 86-4 and 5 may represent a dispersal train and suggest a source immediately to the north.

Anomalous values in the upper till (Matheson) were intersected in holes 86-4, 86-7, and 86-8. The significance of these values is uncertain because of their substantial distance from bedrock and therefore, uncertain transportation distance.

Based on the evidence at this stage it is highly speculative to infer a possible trend or strike of the gold mineralization detected in hole 86-2. Nevertheless the magnetic vertical gradient map suggests a formational trend of about Az. 075 degrees. If it is assumed that the lack of values in hole 86-3 is caused by a lack of relevant sampling medium because a bedrock high exists in this area, then the zone may be inferred to strike at Az. 075 degrees from hole 86-2 easterly between the outlines of high gradient. Holes 86-4 and 5 which encountered anomalous basal till are located on the north edge of an area of positive vertical gradient.

RECOMMENDATIONS

A diamond drill programme is recommended. Initially it is proposed that two holes be drilled from south to north, inclined at 65 degrees, on Line 3+00 East. If mineralization is encountered and the overburden is difficult to penetrate, the deeper hole would be wedged.

Depending upon the dip of the mineralization and the ease of penetrating the overburden, additional holes may be drilled from north to south. A minimum of 3000 feet (914 metres) is recommended to investigate the occurrence in the bottom of hole 86-2. Because of the exceptional depth of overburden, this programme, including assaying and supervision, may cost up to \$40. per foot. An amount of \$120,000. should therefore, be allocated.

Should results that merit follow-up drilling be forthcoming, substantial additional expenditures will be

required to provide an evaluation of the gold mineralization. The nature and scope of the programme would be based on the initial drilling.

Timmins, Ontario,
September 23, 1986.



Shield Geophysics Limited

A handwritten signature in black ink, appearing to read 'R. J. Bradshaw', written over the typed name.

R. J. Bradshaw, P. Eng.
Geologist.

OVERBURDEN DRILLING MANAGEMENT LIMITED

SAMPLE PROCESSING FLOW SHEET

TABLE 1

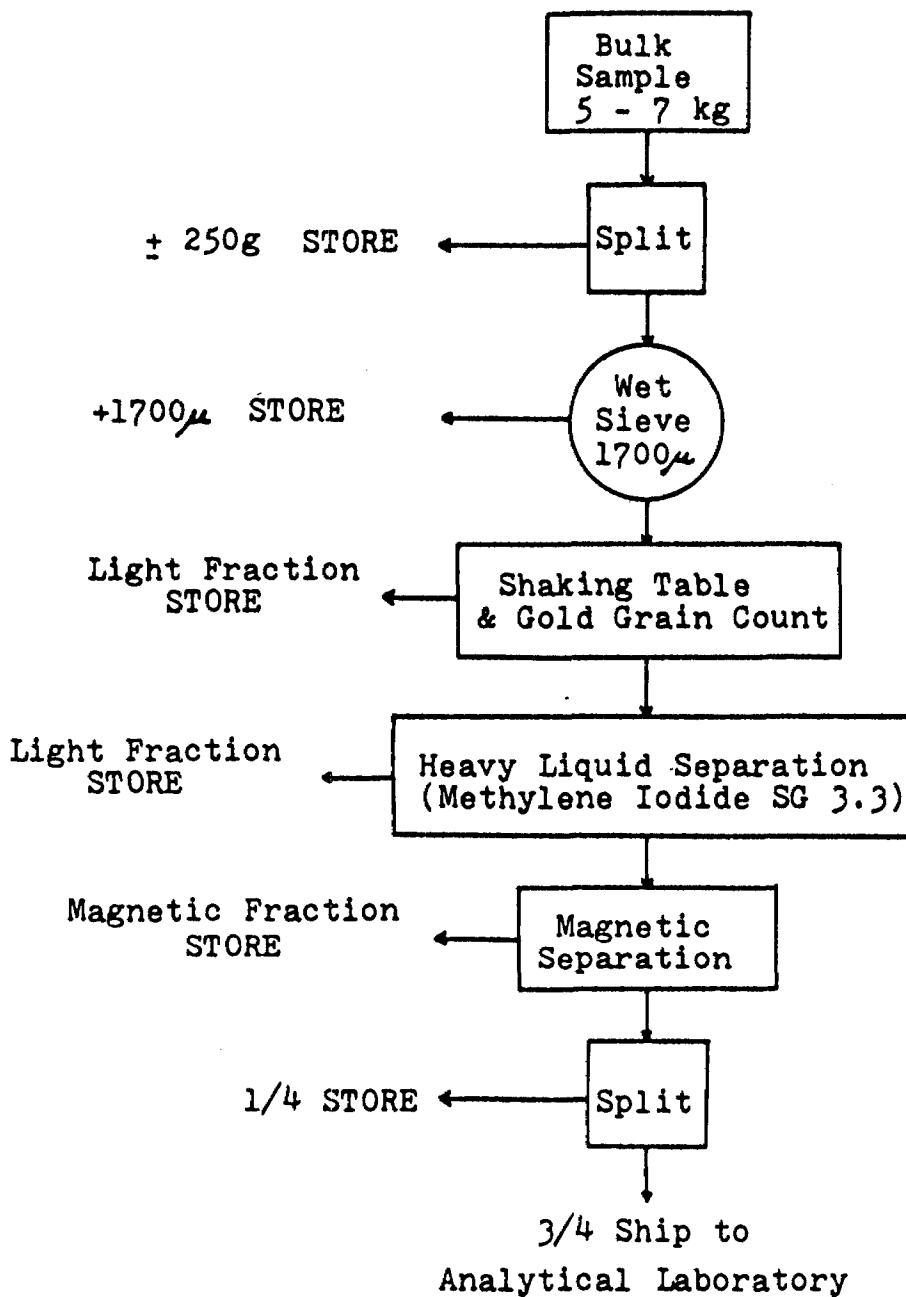


TABLE 2

OVERBURDEN EXPLORATION SERVICES LTD.
 REPORT DATE: August 20, 1986

CLIENT: Shield Geophysics Ltd.
 PG.1 of 2

Kg. (wet)		Grams (dry)						
Sample No.	Bulk	+10 Mesh	Table Feed	Table Conc.	Mags.	NonMags.	M.I.Heav.	M.I.Lites
01-01	7	.12	6.88	12.41	1.26	11.15	8.67	2.48
01-02	5.89	.12	5.77	23.33	4.96	18.37	15.02	3.35
01-03	5.95	.15	5.80	10.30	2.10	8.20	6.17	2.03
01-04	3.18	.10	3.08	1.83	.11	1.72	.57	1.15
01-05	4.60	.12	4.48	6.25	1.02	5.23	3.42	1.81
01-06	6.48	0	6.48	10.36	1.78	8.58	5.66	2.92
01-07 BDR	3.16	2.94	.22					
02-01	5.76	.90	4.86	21.10	2.70	18.40	11.74	6.66
02-02	4.66	0	4.66	8.70	1.83	6.87	4.66	2.21
02-03 BDR	2.11	.70	1.41					
03-01	5.22	0	5.22	26.78	3.99	22.79	12.03	10.76
03-02	3.90	0	3.90	17.35	3.51	13.84	8.32	5.52
03-03 BDR	1.20	1.04	.16					
04-01	5.02	.20	4.82	31.58	5.46	26.12	19.84	6.28
04-02	4.43	.35	4.08	18.35	5.96	12.39	6.93	5.46
04-03	3.56	0	3.56	17	5.72	11.28	6.80	4.48
04-04	6.19	.24	5.95	27.19	7.33	19.86	9.31	10.55
04-05	3.23	.02	3.21	6.47	1.39	5.08	1.95	3.13
04-06	5.16	.05	5.11	11.02	2.70	8.32	4.16	4.16
04-07	4.16	.07	4.09	9.30	2.29	7.01	4.47	2.54
04-08	4.56	.05	4.51	18.74	4.31	14.43	6.98	7.45
04-09	2.30	.05	2.25	18.76	6.56	12.20	7.10	5.10
04-10	4.14	.11	4.03	48.60	34.70	13.90	5.54	8.36
04-11 BDR	4.13	.43	3.70					
05-01	5.16	.21	4.95	27.99	4.40	23.59	9.28	14.31
05-02	3.85	.10	3.75	18.77	3.03	15.74	7.92	7.82
05-03	4.06	.24	3.82	6.79	2.36	4.43	2.46	1.97
05-04	4.40	.11	4.29	17.55	5.66	11.89	7.40	4.49
05-05	4.38	.06	4.32	11.28	3.31	7.97	4.88	3.09
05-06	4.88	.14	4.74	13.55	4.15	9.40	5.42	3.98
05-07	1.85	.06	1.79	5.65	1.25	4.40	2.27	2.13
05-08	2.35	.06	2.29	8.48	1.57	6.91	2.94	3.97
05-09	7.75	.31	7.44	18.54	4.74	13.80	7.55	6.25
05-10	7.38	.09	7.29	17.82	4.03	13.79	9.06	4.73
05-11	5.76	.03	5.73	17.81	4.16	13.65	7.88	5.77
05-12	6.23	.13	6.10	12.90	3.81	9.09	6	3.09
05-13	5.26	.09	5.17	21.89	5.39	16.50	9.83	6.67
05-14	2.27	.05	2.22	8.68	2.09	6.59	3.30	3.29
05-15 BDR	6.14	0	6.14					
06-01	7.51	.12	7.39	45.09	6.39	38.70	20.90	17.80
06-02	6.74	.16	6.58	29.08	4.87	24.21	13.24	10.97
06-03	5.58	.05	5.53	43.97	6.50	37.47	24.92	12.55

OVERBURDEN EXPLORATION SERVICES LTD.
 REPORT DATE: August 20, 1986

CLIENT: Shield Geophysics Ltd.
 PG.2 of 2

 1 Kg. (wet) 1 Grams (dry) 1

Sample No.	Bulk	+10 Mesh	Table Feed	Table Conc.	Mags.	NonMags.	M.I.Heav.	M.I.Lites
06-04	7.69	.08	7.61	35.56	6.76	28.80	15.46	13.34
06-05	7.18	.02	7.16	18.63	1.99	16.64	8.38	8.26
06-06	6.88	.08	6.80	52.55	10.54	42.01	23.65	18.36
06-07	5.99	.09	5.90	22.47	4.78	17.69	9.87	7.82
06-08	5.66	0	5.66	29.29	3.71	25.58	14.25	11.33
06-09 BDR	2.04	0	2.04					
07-01	6	.20	5.80	32.93	6.97	25.96	16.84	9.12
07-02	4.11	.01	4.10	12.51	0	12.51	7.14	5.37
07-03	7.32	.15	7.17	33.83	11.99	21.84	14.40	7.44
07-04	6.69	.29	6.40	17.66	6.30	11.36	4.64	6.72
07-05	5.96	.15	5.81	17.86	5.98	11.88	7.08	4.80
07-06	4.92	.12	4.80	16.68	2.28	14.40	10.19	4.21
07-07	5.66	.08	5.58	14.42	4.80	9.62	6.81	2.81
07-08	6.31	.18	6.13	23.96	5.30	18.66	7.63	11.03
07-09 BDR	3.05	0	3.05					
08-01	6.28	.15	6.13	49.39	8.70	40.69	24.74	15.95
08-02	5.75	.17	5.58	34.22	9.13	25.09	19.08	6.01
08-03	5.08	.50	4.58	15.90	2.30	13.60	6.86	6.74
08-04	5.40	.43	4.97	9.04	5.44	3.60	1.83	1.77
08-05	5.11	.23	4.88	24.45	7.74	16.71	10.01	6.70
08-06	5.33	.10	5.23	10.80	3.02	7.78	4.42	3.36
08-07	5.40	.15	5.25	6.68	1.85	4.83	1.58	3.25
08-08	1.86	.03	1.83	10.62	2.86	7.76	3.88	3.88
08-09 BDR	4.64	0	4.64					

OVERBURDEN EXPLORATION SERVICES LTD.

GOLD GRAIN/MINERALOGICAL REPORT FOR SUPERPANNER CONCENTRATES - TABLE 3

Company: SHIELD GEOPHYSICS LTD.
 Attn. : R.J. Bradshaw
 Sample Series: SH

Date: August 11, 1986

Samp.No.	Gold Grains	Sulphides	Other
01-02		tr. py.	25% hem., unoxid., 10% ilmen., average grain size approx. 100 microns.
02-02		no visible sulphides	30% hem., unoxid. 10% ilmen.,
02-03 mesh (+80) brx.		85% py., unoxid., predominantly subhed. and anhed.	tr. hem., unoxid., tr. ilmen., average grain size approx. 200-400 microns
02-03 mesh (-80) brx.		95% py., predominantly anhed. and subhed. "shards", (i.e. broken fragments of larger grains).	tr. hem., tr. ilmen., average grain size 50-100 microns.
03-02		10% py., unoxid., predominantly anhed. with minor subhed.	25% hem., unoxid., 10% ilmen.
04-02		5% py., unoxid., predominantly anhed. and subhed., a few large grains of 0.5 m.m	15% hem., unoxid., 15% ilmen.
04-03		10% py., unoxid., predominantly anhed. and subhed.	25% hem., unoxid., 10% ilmen.
04-04		15% py., unoxid., predomonantly anhed. and subhed.	25% hem., unoxid., 10% ilmen.
04-05		15% py., unoxid., predominantly anhed. and subhed.	30% hem., minor oxid., 10% ilmen.

OVERBURDEN EXPLORATION SERVICES LTD.

GOLD GRAIN/MINERALOGICAL REPORT

Company: R. J. Bradshaw

Date: August, 1986

Samp.No.	Gold Grains	Sulphides	Other
04-07		10% py., unoxid. predominantly subhed., tr. marcas. framboids, tr. arsenopy., tr. chalcopy.,	20% hem., unoxid., 10% ilmen.
04-08		15% py., unoxid., predominantly anhed. and subhed. tr. galena.	20% hem., unoxid., 10% ilmen.
04-09	1 gold grain, irregular flake, pitted surface, 320 x 200 microns approx. thickness 60 microns (wide end).	15% py., unoxid., predominantly anhed. and subhed., a few larger subhed. gr. >0.5 m.m.	15% hem., unoxid., 5% ilmen.
04-10		15% py., unoxid., predominantly subhed. tr. galena.	10% hem., minor oxid., 10% ilmen.
04-11		70% py., unoxid., anhed. to euh., minor wine-stained euh.	tr. hem., tr. ilmen.
05-01		15% py., unoxid., predominantly anhed. and subhed. tr. marcas. framboids.	10% hem., minor oxid., 10% ilmen.
05-02		10% py., unoxid., predominantly anhed., tr. marcas. framboids.	10% hem., unoxid., 5% ilmen., a few gr. of 0.5 m.m.
05-06		20% py., unoxid., predomonantly anhed. and subhed.	20% hem., unoxid., 5% ilmen.

OVERBURDEN EXPLORATION SERVICES LTD.

GOLD GRAIN/MINERALOGICAL REPORT

Company: K. J. Bradshaw

Date: August, 1986

Samp.No.	Gold Grains	Sulphides	Other
05-10		15% py., unoxid., predominantly anhed. and subhed.	20% hem., unoxid., 5% ilmen.
05-11		15% py., unoxid., predomonantly anhed. and subhed.	20% hem., unoxid., 5% ilmen.
05-12		10% py., unoxid., predominantly anhed. and subhed., marcas. framboids, tr. galena.	25% hem., unoxid., 5% ilmen.
05-13	1 gold grain, simple flake, pitted surface, 700 x 450 microns approx. thickness 80 microns.	15% py., unoxid., predominantly anhed. and subhed., a few large subhed. gr. < 0.5 m.m.	30% hem., unoxid., 10% ilmen.
05-14		15% py., unoxid., predominantly anhed. and subhed., a few large subhed. gr. < 0.5 m.m.	30% hem., unoxid., 5% ilmen.
06-02		15% py., unoxid., predominantly anhed. and subhed., tr. marcas. framboids, tr. galena.	25% hem., unoxid., 10% ilmen., average grain size approx. 100 microns .
06-03		5% py., unoxid., predominantly anhed. and subhed. tr. marcas. franboids.	10% hem., unoxid., 20% ilmen.

OVERBURDEN EXPLORATION SERVICES LTD.

GOLD GRAIN/MINERALOGICAL REPORT

Company: R. J. Bradshaw

Date: August, 1986

Samp.No.	Gold Grains	Sulphides	Other
06-04		15% py., unoxid., predominantly anhed. and subhed., a few large subhed. gr. > 0.5 m.m. tr. sphaler.	10% hem., unoxid., 20% ilmen.
06-05		45% py., unoxid., predominantly anhed. and subhed.	10% hem., unoxid., 10% ilmen.
06-06		15% py., unoxid., predominantly anhed., tr. marcas. framboids.	40% hem., unoxid. 10% ilmen.
06-07		15% py., unoxid. predominantly anhed., tr. marcas. framboids.	30% hem., unoxid. 10% ilmen.
07-01		15% py., unoxid. predominantly anhed., tr. arsenopy., tr. galena.	25% hem., unoxid., 15% ilmen.
07-03		15% py., unoxid., predominantly anhed. and subhed. Many large subhed. gr. in the 0.5-1 m.m. size range tr. marcas. framboids, tr. arsenopy., tr. sphaler.	10% hem., minor oxid., 25% ilmen., some gr. as large as 0.5 m.m.
07-04		10% py., unoxid., aned., subhed. and euh.	40% hem., unoxid., 15% ilmen.
07-05		20% py., unoxid., predominantly anhed. and subhed.,	35% hem., unoxid., 10% ilmen.

OVERBURDEN EXPLORATION SERVICES LTD.

GOLD GRAIN/MINERALOGICAL REPORT

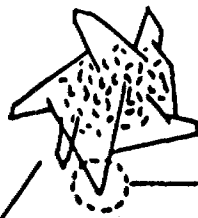
Company: R. J. Bradshaw

Date: August, 1986

Samp.No.	Gold Grains	Sulphides	Other
08-01		10% py., unoxid., predominantly anhed. and subhed. tr. marcas. framboids. tr. arsenopy.	20% hem., unoxid., 10% ilmen.
08-02		10% py., unoxid., predominantly anhed. and subhed., tr. marcas. framboids, tr. galena.	20% hem., unoxid., 10% ilmen.
08-03		15% py., unoxid., predominantly anhed. and subhed. tr. marcas. framboids.	15% hem., unoxid., 10% ilmen.
08-04		15% py., unoxid., predominantly anhed. and subhed.	15% hem., unoxid., 10% ilmen.
08-06		10% py., unoxid., predominantly anhed., minor wine stained euh. tr. marcas. framboids.	20% hem, unoxid., 20% ilmen.
08-07		35% py., unoxid., predominantly anhed., tr. marcas. framboids	25% hem., unoxid., 10% ilmen.

DELICATE

Bedrock gold crystallizes as pitted granular masses with smooth protruding crystals



simple delicate

IRREGULAR

After short ice transport, crystals are removed leaving smaller pitted grain with several protrusions



IRREGULAR

Some flat irregular grains may become curled



ABRADED

With increasing transport, protrusions break off irregular grain, producing several smaller leaf-shaped grains. Pitted surfaces become smooth.



ABRADED

Curled irregular grains become spindle-shaped abraded grains



ROUNDED

After long transport, especially in streams, continued abrasion produces small, polished, spherical or ellipsoidal grains

0 1000

Microns

Effects of Glacial Transport on Gold Particle Size and Shape
(Developed by OVERBURDEN DRILLING MANAGEMENT LTD.)



REPORT: 016-3224 (COMPLETE)

REFERENCE INFO:

CLIENT: SHIELD GEOPHYSICS LIMITED
 PROJECT: NONE

SUBMITTED BY: J. RICHARD
 DATE PRINTED: 18-SEP-86

ORDER	ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Sc Scandium	58	0.5 PPM		Neutron Activation
2	Cr Chromium	58	50 PPM		Neutron Activation
3	Fe Iron	58	0.5 PCT		Neutron Activation
4	Co Cobalt	58	10 PPM		Neutron Activation
5	Ni Nickel	58	50 PPM		Neutron Activation
6	Zn Zinc	58	200 PPM		Neutron Activation
7	As Arsenic	58	1 PPM		Neutron Activation
8	Se Selenium	58	10 PPM		Neutron Activation
9	Rb Rubidium	58	10 PPM		Neutron Activation
10	Mo Molybdenum	58	2 PPM		Neutron Activation
11	Ag Silver	58	5 PPM		Neutron Activation
12	Cd Cadmium	58	10 PPM		Neutron Activation
13	Sb Antimony	58	0.2 PPM		Neutron Activation
14	Cs Cesium	58	1 PPM		Neutron Activation
15	Ba Barium	58	100 PPM		Neutron Activation
16	La Lanthanum	58	5 PPM		Neutron Activation
17	Eu Europium	58	2 PPM		Neutron Activation
18	Tb Terbium	58	1 PPM		Neutron Activation
19	Yb Ytterbium	58	5 PPM		Neutron Activation
20	Hf Hafnium	58	2 PPM		Neutron Activation
21	Ta Tantalum	58	1 PPM		Neutron Activation
22	W Tungsten	58	2 PPM		Neutron Activation
23	Ir Iridium	58	100 PPB		Neutron Activation
24	Au Gold	58	5 PPB		Neutron Activation
25	Th Thorium	58	0.5 PPM		Neutron Activation
26	U Uranium	58	0.5 PPM		Neutron Activation
27	WT Test Weight	58	0.01 g		

TABLE 6

REPORT: 016-3224

PROJECT: NONE

PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
SH-01-01		103.0	1500	19.0	33	93	<200	<8	<13	<18	6	<8
SH-01-02		106.0	1800	21.0	35	<50	<200	9	<11	<16	3	<7
SH-01-03		109.0	2400	22.0	40	75	<200	<10	<15	<23	<6	<9
SH-01-04		111.0	2000	20.0	40	<130	<460	<28	<38	<51	<17	<25
SH-01-05		107.0	1800	21.0	35	57	<210	<12	<18	36	7	<12
SH-01-06		112.0	1600	23.0	71	96	<200	24	<15	28	<6	<9
SH-02-01		105.0	1600	20.0	36	74	<200	<7	<11	<16	<4	<7
SH-02-02		106.0	2300	22.0	33	<50	<200	<11	<18	<24	6	<10
SH-03-01		109.0	1700	24.0	71	86	<200	79	<13	20	3	<7
SH-03-02		104.0	2300	24.0	140	180	<200	145	<15	29	3	<8
SH-04-01		89.9	1300	19.0	38	74	<200	15	<10	14	<2	<6
SH-04-02		103.0	4000	26.0	180	270	<200	221	<15	<23	6	<9
SH-04-03		92.7	4100	25.0	540	1300	<200	1060	<15	<25	4	<9
SH-04-04		90.9	4900	27.0	460	1800	<200	418	<13	25	8	<8
SH-04-05		85.1	6850	29.0	140	190	810	267	<27	<42	<12	<16
SH-04-06		81.7	5830	26.0	150	210	370	251	<18	<26	<8	<11
SH-04-07		73.4	8750	19.0	130	230	610	179	<14	<21	<6	<9
SH-04-08		89.4	4600	25.0	280	360	290	485	<14	<22	<6	<9
SH-04-09		81.7	3600	25.0	1290	1500	<220	2700	<17	<33	8	<11
SH-04-10		52.3	3400	37.0	2090	1700	620	2930	41	<45	<10	<14
SH-05-01		95.9	1600	22.0	57	86	<200	41	<10	<15	28	<7
SH-05-02		100.0	2200	27.0	70	150	<200	71	<16	22	17	<9
SH-05-03		89.3	2300	24.0	1930	350	<430	324	<32	<62	<14	<20
SH-05-04		93.0	2800	25.0	110	100	<200	95	<13	<19	7	<8
SH-05-05		93.1	6420	27.0	130	140	<200	147	<18	<25	<7	<10
SH-05-06		90.9	5750	33.0	270	820	360	155	<17	<26	<7	<10
SH-05-07		91.8	7270	26.0	110	97	<230	131	<22	<31	<9	<14
SH-05-08		94.1	7700	28.0	190	420	<250	220	<20	<31	<9	<12
SH-05-09		88.9	10500	27.0	150	290	<200	264	<14	<20	<6	<8
SH-05-10		82.2	5850	30.0	170	240	<240	333	<17	<23	13	<8
SH-05-11		94.4	6460	26.0	150	230	<240	198	<15	<22	<6	<9
SH-05-12		89.3	7230	26.0	130	210	<200	226	<16	<24	4	<9
SH-05-13		93.7	5580	25.0	130	190	<200	237	<14	<19	<6	<7
SH-05-14		88.7	5500	27.0	270	210	<230	408	<19	<31	<8	<12
SH-06-01		103.0	1700	22.0	63	76	<200	60	<11	<15	5	<6
SH-06-02		105.0	1600	22.0	63	56	<200	58	<12	20	2	<7
SH-06-03		88.3	1200	18.0	56	54	<200	60	<10	17	<2	<5
SH-06-04		84.4	1500	19.0	97	180	<200	159	<11	<16	<5	<6
SH-06-05		78.3	1900	25.0	99	190	<200	255	<14	<19	30	<8
SH-06-06		107.0	3200	27.0	380	430	<200	535	<12	<18	5	<7



REPORT: 016-3224

PROJECT: NONE

PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
SH-01-01		<26	1.3	<1	<130	380	5	9	42	237	11	<27
SH-01-02		<22	0.4	<1	<110	562	8	10	42	300	14	<23
SH-01-03		<30	<0.3	<1	<150	614	8	10	49	337	12	<31
SH-01-04		<88	<0.8	<4	<380	350	<9	8	20	170	7	<89
SH-01-05		<37	<0.4	<2	<190	564	6	10	46	292	11	<40
SH-01-06		<30	1.3	<1	<150	567	6	10	46	275	13	<32
SH-02-01		<21	0.3	<1	<110	470	8	9	40	238	11	<23
SH-02-02		<33	1.8	<2	<160	559	4	9	42	231	21	<34
SH-03-01		<24	0.7	<1	<120	576	8	10	48	295	14	34
SH-03-02		<27	1.3	<1	<140	553	6	9	43	266	12	<28
SH-04-01		<18	0.3	<1	<100	514	9	9	39	288	12	<19
SH-04-02		<30	1.6	<1	<150	524	6	9	46	291	14	<30
SH-04-03		<29	2.3	<1	<140	430	6	8	43	250	9	<30
SH-04-04		<26	2.8	<1	<130	390	6	8	34	160	10	<27
SH-04-05		58	3.5	<3	<260	872	8	10	46	379	14	63
SH-04-06		40	3.3	<2	<170	598	5	9	40	344	12	<37
SH-04-07		<28	2.4	<1	<140	370	4	6	28	200	7	<30
SH-04-08		<28	3.8	<1	<140	440	3	8	35	253	10	53
SH-04-09		<34	5.6	<2	270	320	7	8	37	170	8	<35
SH-04-10		<44	3.9	<2	<220	150	<3	6	22	46	7	936
SH-05-01		<23	0.9	<1	<110	150	7	7	34	50	7	<25
SH-05-02		<29	1.4	<1	<140	570	7	10	37	246	15	<31
SH-05-03		<68	2.4	<3	<360	1020	<7	13	43	306	15	8520
SH-05-04		<26	1.3	<1	<120	440	5	8	37	202	12	<28
SH-05-05		<33	3.1	2	<160	530	6	9	37	297	14	<36
SH-05-06		<34	2.8	<2	<160	470	8	8	39	271	12	<36
SH-05-07		<43	1.9	<2	<200	420	<4	8	39	246	15	<46
SH-05-08		<42	3.5	<2	<200	450	7	8	31	273	14	<43
SH-05-09		<27	3.7	<1	<130	519	3	8	41	305	12	54
SH-05-10		<30	2.5	<1	<150	851	6	11	44	531	17	87
SH-05-11		<30	3.2	<1	<140	800	6	10	40	335	10	43
SH-05-12		<31	3.4	<1	<160	651	6	9	43	382	13	<34
SH-05-13		<26	3.1	<1	<130	490	7	8	39	305	12	<28
SH-05-14		<41	3.8	<2	<200	514	5	8	36	278	12	150
SH-06-01		<20	0.8	<1	<100	521	8	9	43	258	13	40
SH-06-02		<23	0.7	<1	<110	470	5	9	44	243	13	50
SH-06-03		<18	0.7	<1	<100	440	7	8	34	212	11	<19
SH-06-04		<22	1.6	<1	<100	500	7	10	35	265	12	88
SH-06-05		<28	0.7	<1	<130	340	3	7	29	150	11	<30
SH-06-06		<24	3.8	1	<120	490	3	9	42	170	13	<26

REPORT: 016-3224

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g
SH-01-01		<100	48	170.0	21.0	8.79
SH-01-02		<100	<14	268.0	26.0	15.23
SH-01-03		<100	<19	296.0	28.0	6.18
SH-01-04		<230	<51	145.0	14.0	0.55
SH-01-05		<110	<24	265.0	25.0	3.48
SH-01-06		<100	<19	279.0	27.0	5.72
SH-02-01		<100	<14	210.0	21.0	11.72
SH-02-02		<100	<20	289.0	23.0	4.61
SH-03-01		<100	140	286.0	26.0	11.99
SH-03-02		<100	66	276.0	25.0	8.44
SH-04-01		<100	28	229.0	22.0	19.88
SH-04-02		<100	3760	272.0	23.0	6.69
SH-04-03		<100	360	215.0	19.0	6.73
SH-04-04		<100	240	214.0	15.0	9.26
SH-04-05		<150	77	469.0	34.0	1.94
SH-04-06		<100	44	324.0	22.0	4.21
SH-04-07		<100	946	194.0	14.0	4.59
SH-04-08		<100	1750	224.0	19.0	6.92
SH-04-09		<100	1480	155.0	13.0	7.10
SH-04-10		<130	580	102.0	7.5	5.57
SH-05-01		<100	26	42.0	7.5	9.10
SH-05-02		<100	<18	338.0	35.0	7.84
SH-05-03		<210	160	793.0	37.0	2.46
SH-05-04		<100	26	232.0	19.0	7.45
SH-05-05		<100	601	280.0	21.0	4.84
SH-05-06		<100	66	244.0	20.0	5.41
SH-05-07		<120	638	219.0	17.0	2.21
SH-05-08		<120	72	224.0	22.0	2.87
SH-05-09		<100	531	270.0	22.0	7.58
SH-05-10		<100	665	455.0	36.0	9.08
SH-05-11		<100	210	298.0	25.0	7.82
SH-05-12		<100	140	343.0	26.0	5.40
SH-05-13		<100	7680	236.0	21.0	9.81
SH-05-14		<110	774	246.0	22.0	3.26
SH-06-01		<100	110	250.0	24.0	20.75
SH-06-02		<100	270	255.0	25.0	13.11
SH-06-03		<100	44	204.0	20.0	24.89
SH-06-04		<100	94	238.0	24.0	15.35
SH-06-05		<100	<18	178.0	18.0	8.32
SH-06-06		<100	100	289.0	19.0	23.53



REPORT: 016-3224

PROJECT: NONE

PAGE 2A

SAMPLE NUMBER	ELEMENT UNITS	Sc PPM	Cr PPM	Fe PCT	Co PPM	Ni PPM	Zn PPM	As PPM	Se PPM	Rb PPM	Mo PPM	Ag PPM
SH-06-07		109.0	2200	25.0	160	390	<200	154	<14	<20	21	<8
SH-06-08		103.0	1400	21.0	93	93	<200	96	<12	<17	<5	<7
SH-07-01		110.0	1900	24.0	76	140	<200	89	<13	<17	<5	<7
SH-07-02		102.0	1300	20.0	70	75	<200	27	<14	<20	9	<9
SH-07-03		90.1	1600	27.0	2640	3900	<240	1110	<17	<36	6	<11
SH-07-04		91.3	4300	28.0	1230	1700	<260	2050	<19	<38	13	<13
SH-07-05		95.1	4800	25.0	280	340	390	457	<14	<23	<6	<8
SH-07-06		64.8	9650	44.0	160	500	<200	239	<11	<19	30	<7
SH-07-07		95.7	8960	30.0	310	340	<200	639	<15	<23	<7	<9
SH-07-08		89.4	8350	30.0	400	390	<200	1120	<14	<24	<6	<9
SH-08-01		105.0	1830	22.0	65	91	<200	66	<12	<15	<5	<6
SH-08-02		110.0	2000	24.0	85	130	<200	83	<14	<17	<6	<7
SH-08-03		109.0	1900	23.0	85	90	<200	88	<15	<23	4	<9
SH-08-04		82.2	5050	24.0	250	860	<310	366	<25	<42	<12	<15
SH-08-05		114.0	2700	27.0	110	98	<200	128	<16	24	<6	<8
SH-08-06		110.0	2200	25.0	100	130	<210	95	<18	<27	10	<11
SH-08-07		97.7	2700	26.0	270	450	<340	154	<29	<46	<14	<17
SH-08-08		89.0	1800	24.0	940	1800	<370	1500	<20	38	7	<13



REPORT: 016-3224

PROJECT: NONE

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SAMPLE NUMBER	ELEMENT UNITS	Cd PPM	Sb PPM	Cs PPM	Ba PPM	La PPM	Eu PPM	Tb PPM	Yb PPM	Hf PPM	Ta PPM	W PPM
SH-06-07		<28	1.1	<1	<140	490	9	9	39	170	11	220
SH-06-08		<23	0.8	<1	<110	450	11	9	43	265	12	<27
SH-07-01		<24	0.3	<1	<110	574	4	10	41	249	13	85
SH-07-02		<30	0.5	<1	<140	556	10	10	40	312	13	120
SH-07-03		47	9.0	<2	<170	420	7	7	39	203	12	63
SH-07-04		<43	9.0	<2	<210	440	5	7	31	180	10	253
SH-07-05		<29	2.7	<1	<140	440	5	7	38	229	9	46
SH-07-06		<25	2.4	<1	<120	290	5	4	25	180	9	67
SH-07-07		<32	3.9	<1	<150	480	5	8	39	279	14	<36
SH-07-08		<31	3.7	<1	<150	410	4	7	37	251	9	140
SH-08-01		<22	0.4	<1	<100	590	5	10	43	259	16	<24
SH-08-02		<25	0.7	<1	<120	746	5	11	45	305	17	69
SH-08-03		<32	0.8	<1	<150	642	4	11	49	298	13	309
SH-08-04		<55	1.6	<3	380	652	<6	9	40	287	12	68
SH-08-05		<29	1.1	<1	<130	571	<3	9	41	201	19	<33
SH-08-06		<38	1.1	<2	<180	613	10	13	54	270	16	96
SH-08-07		<64	2.7	<3	<290	650	12	13	42	470	11	88
SH-08-08		<45	3.5	<2	<210	410	6	8	37	180	12	<49



REPORT: 016-3224

PROJECT: NONE

PAGE 2C

SAMPLE NUMBER	ELEMENT UNITS	Ir PPB	Au PPB	Th PPM	U PPM	WT g
SH-06-07		<100	<18	244.0	20.0	9.80
SH-06-08		<100	<15	194.0	22.0	14.11
SH-07-01		<100	28	294.0	24.0	16.84
SH-07-02		<100	<19	277.0	28.0	7.08
SH-07-03		<100	2270	210.0	20.0	14.35
SH-07-04		<120	470	226.0	15.0	4.51
SH-07-05		<100	370	216.0	16.0	6.98
SH-07-06		<100	140	146.0	12.0	10.08
SH-07-07		<100	480	264.0	19.0	6.78
SH-07-08		<100	400	218.0	19.0	7.60
SH-08-01		<100	<14	298.0	26.0	24.63
SH-08-02		<100	1060	390.0	31.0	18.88
SH-08-03		<100	32	324.0	30.0	6.77
SH-08-04		<150	<37	397.0	33.0	1.85
SH-08-05		<100	260	319.0	22.0	9.98
SH-08-06		<110	41	336.0	29.0	4.56
SH-08-07		<170	<40	428.0	48.0	1.64
SH-08-08		<120	140	186.0	19.0	3.95

REVERSE CIRCULATION DRILL HOLE LOG

DATE July 15 1986

HOLE NO 86-1 LOCATION L 100 E, 0+75 N

SHIFT HOURS
____ TO ____

GEOLOGIST M BRADY DRILLER M WHEEL BIT NO. CB68220 BIT FOOTAGE: _____

TOTAL HOURS

MOVE TO HOLE Move drill from shop to drill site.

CONTRACT HOURS

DRILL 11:10 - 12:32 1:06 - 3:15

MECHANICAL DOWN TIME 12:32 - 1:06 Drill rods and clean bit

DRILLING PROBLEMS Fine silt slow drilling

OTHER _____

MOVE TO NEXT HOLE 3:15 - 4:00

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				<p><u>Organics</u></p> <p>grey silt</p>
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				<p><u>grey clay</u></p> <p>grey silt with fine sand, a number of large mica flakes @ 23m</p>
14				
15				
16				
17				
18				
19				
20				

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19 _____

HOLE NO 86-2 LOCATION _____

SHIFT HOURS
_____ TO _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

TOTAL HOURS _____

MOVE TO HOLE _____
DRILL _____

CONTRACT HOURS _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
					Au/ppb				
4				grey silt with occ pebbles					
5									
6									
7									
8									
9	(circle with diagonal lines)			pebbles and cobbles Mafic boulder					
10				Gravel with boulders - no matrix					
11									
12	(circle with horizontal lines)			Granite boulder					
13	(circle with diagonal lines)			Mafic boulder					
14				grey clay with pebbles					
15				blue grey clay					
16	(diagonal hatching)			Bedrock: green talc schist & gneiss					

New bit CB68224 @ .53.3m

REVERSE CIRCULATION DRILL HOLE LOG

DATE July 17, 1986

HOLE NO. 86-4 LOCATION L7+00 E 0+75 N

FT HOURS
TO _____

GEOLOGIST M. BRADSHAW DRILLER M. WHISSEK BIT NO. CR60223 BIT FOOTAGE: _____

TOTAL HOURS _____

MOVE TO HOLE 10:25 - 11:30

CONTRACT HOURS _____

DRILL 11:30 - 4:33 / July 18 8:17 - 3:00 / July 21 2:20 - 3:00

MECHANICAL DOWN TIME change bit @ 9:33 Rods stuck in hole @ 3:00

DRILLING PROBLEMS Put down 215' of NW casing @ 9:00 - 2:00 July 21/86

OTHER New bit CR60222 New sub July 18

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG				
1				Organics				
2				brown clay				
3				brown clay and silt				
4								
5								
6								
7				brown clay				
8				grey brown silt with clay				
9								
10								
11				grey brown silt				
12								
13				brown clay				
14				grey brown silt with a few pebbles @ 16.5m				
15								
16								
17				grey silt				
18								
19								
20				clay				

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19____
 SHIFT HOURS _____
 _____ TO _____
 TOTAL HOURS _____
 CONTRACT HOURS _____

HOLE NO 86-4 LOCATION L7+00E 0975N
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL DOWN TIME _____
 DRILLING PROBLEMS _____
 OTHER _____
 MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
21				grey silt					
2									
3									
4									
5									
6									
7									
8				grey clay with numerous pebbles					
9									
10				Clay Till - pebbles, cobbles, clay	28				
11				clay with pebbles					
12				Grey clay					
13				clay with pebbles					
14									
15				silt with clay and pebbles					
16									
17									
18				clay					
19									
20				silt with clay and pebbles					

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19 _____

HOLE NO B6-4 LOCATION _____

SHIFT HOURS _____ TO _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

TOTAL HOURS _____

MOVE TO HOLE _____

DRILL _____

CONTRACT HOURS _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	Au/ppb				
1	A			gneiss boulder cobbles with clay					
2									
3									
4	B			green felsic boulder					
5			2	Cobbles, boulders and gravel	3760				
6									
7			3	Gravel with clay	360				
8									
9	C			green felsic boulder					
10				clay with pebbles					
11				silt					
12				Cobbles, boulders and gravel					
13									
14			4	Gravel with clay	240				
15	D			green felsic boulder					
16			5	pebbles, cobbles, clay	77				
17			6	Clay T.11.	44				
18									
19			7	Clay T.11	946				
20			8		1750				

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19____
 SHIFT HOURS _____
 TO _____
 TOTAL HOURS _____
 CONTRACT HOURS _____

HOLE NO 86-5 LOCATION _____
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL DOWN TIME _____
 DRILLING PROBLEMS _____
 OTHER _____
 MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	Au/ppb				
1				grey silt					
2				clay					
3				grey silt					
4									
5									
6	⊗			Granite boulder					
6	⊗			Granodiorite					
7				Boulders and cobbles					
8									
9			1	Cobbles boulders and pebbles	26				
10									
11			2	Gravelly Till	<18				
12				Clay - dense					
13									
14									
15									
16			3	Boulders, cobbles with clay	160				
17			4	Clay Till	26				
18									
19			5	Clay Till with mafic boulder	601				
20									
20	⊗			Granite boulder					

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19__

SHIFT HOURS
_____ TO _____

TOTAL HOURS

CONTRACT HOURS

HOLE NO 86-5 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	ANALYSIS				
					Au/ppb				
1			6	Gravel with boulders and clay	66				
			7		638				
2			8	Boulders	72				
3			9	Gravel, minor clay	531				
6			10	Boulders, cobbles with clay	605				
9			11	Pebbles, cobbles with increasing clay content	210				
11				Granodiorite boulder					
12				more clay than pebbles					
13			12	green felsic boulder	140				
16			13	Till, clay with pebbles	7600				
19			14	Till, clay with pebbles	774				
20			15	Bedrock: green talc-chl gouge	65				

REVERSE CIRCULATION DRILL HOLE LOG

DATE July 23, 1986

HOLE NO 86-6 LOCATION 150' E of 110+00E 0+75N
 GEOLOGIST M. KRAPS (MAY) DRILLER M. WHISSEL BIT NO. 2000171 BIT FOOTAGE: _____

SHIFT HOURS _____ TO _____

MOVE TO HOLE _____
 DRILL 2:15 - 5:00 / July 24 8:30 - 9:05 10:00 - 12:30

TOTAL HOURS _____

MECHANICAL DOWN TIME Clean water tank

CONTRACT HOURS _____

DRILLING PROBLEMS Pull rods clean bit 9:05 - 10:00

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
1				Organics Brown sand					
2									
3									
4									
5									
6									
7									
8				Varved clay					
9									
10									
11									
12									
13									
14				grey silt with minor clay					
15									
16									
17									
18									
19									
20				grey silt					

REVERSE CIRCULATION DRILL HOLE LOG

DATE July 24 1986

HOLE NO 86-7 LOCATION L12+00 E 1+00 N

SHIFT HOURS
_____ TO _____

GEOLOGIST M. BRADSHAW DRILLER _____ BIT NO. C000172 BIT FOOTAGE _____

TOTAL HOURS

MOVE TO HOLE _____
DRILL 130-5:00 / July 25 8:40 - 10:09 11:07-2:40

CONTRACT HOURS

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS Pull rods change bit C000170

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG				
1				<i>Organics</i> brown sand				
2								
3								
4								
5								
6								
7								
8								
9								
10				brown silt with bands of brown clay				
11								
12								
13				brown clay				
14								
15								
16				mainly silt with bands of blue-grey clay				
17				brown silt				
18								
19				grey silt grey clay				
20				grey silt				

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19____
 SHIFT HOURS _____
 TO _____
 TOTAL HOURS _____
 CONTRACT HOURS _____

HOLE NO 86-8 LOCATION _____
 GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE: _____
 MOVE TO HOLE _____
 DRILL _____
 MECHANICAL DOWN TIME _____
 DRILLING PROBLEMS _____
 OTHER _____
 MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG	A ₄ /ppb				
1				Varved clay					
2									
3									
4									
5									
6									
7									
8									
9									
10									
11				grey silt					
12				grey silt with minor clay					
13									
14									
15									
16									
17			1	Till: pebbles and cobbles with sand	<14				
18									
19			2	Boulders and cobbles with sand	1060				
20			3	Gravel with silt, clay and pebbles	32				

REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19 _____

HOLE NO 86-8 LOCATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

SHIFT HOURS _____ TO _____

MOVE TO HOLE _____

TOTAL HOURS _____

DRILL _____

CONTRACT HOURS _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG					
					Au/PPb				
1				dense grey clay					
2	(Handwritten symbol)			green qtz-carbonate boulder					
3			6	Till: Boulders and cobbles with clay	41				
4			7	Boulders, cobbles with clay	<40				
5									
6				very fine silt					
7									
8									
9									
10									
11				clay					
12				very fine silt					
13									
14									
15									
16									
17									
18									
19									
20				clay					

NORTH

86-2
L3+00E, 0+75N

OVER BURDEN

Bedrock: green talc chlorite carbonate
plus 5% pyrite
assays 0.23oz. gold / ton

BEDROCK

ASARCO
STRINGER
BOUNDARY

Possible Wedge

Possible Wedge

Proposed initial approach for a Drill Investigation of gold mineralization on the Stringer Property. Holes would be drilled from the South initially. If mineralization dips vertically or North, additional holes would be drilled from the North.

SECTION LOOKING WEST
LINE 3+00 EAST
SCALE 1:100

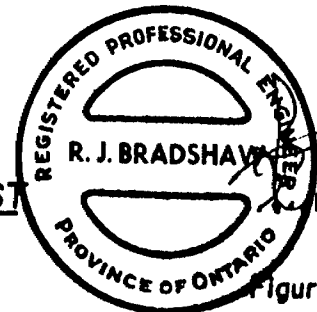
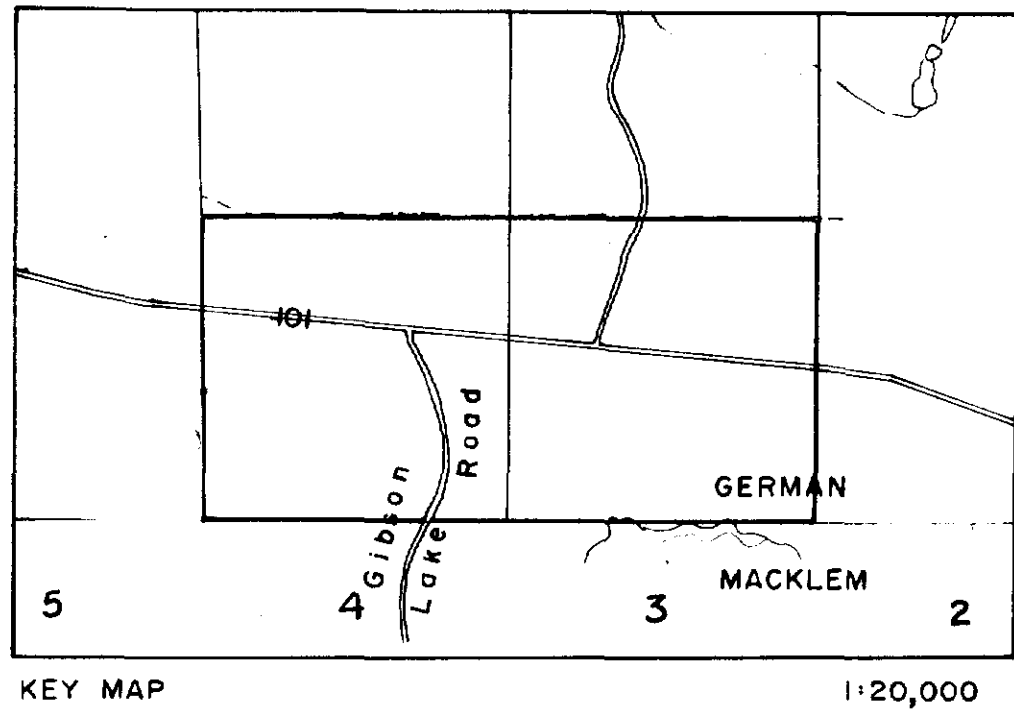
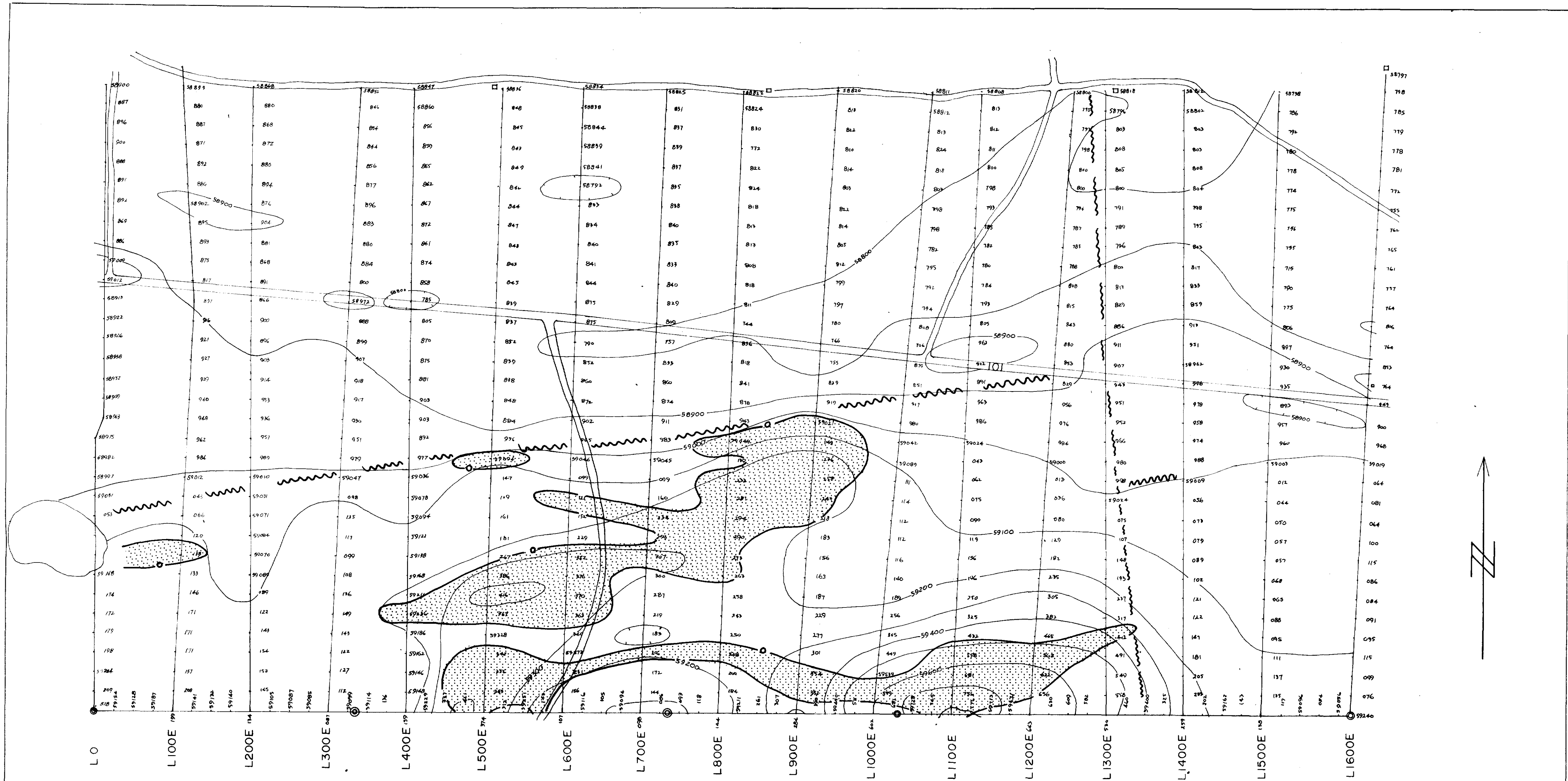
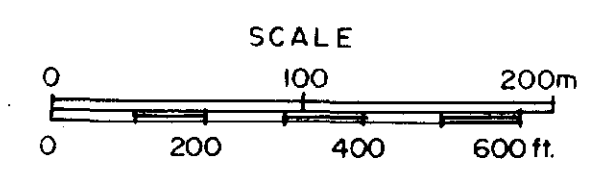


Figure 3



- LEGEND
- Measurement station
 - 58973 Magnetic total field value
 - Magnetic contour
 - Magnetic depression
 - Iron Pin
 - Area of positive vertical gradient
 - ~ Fault

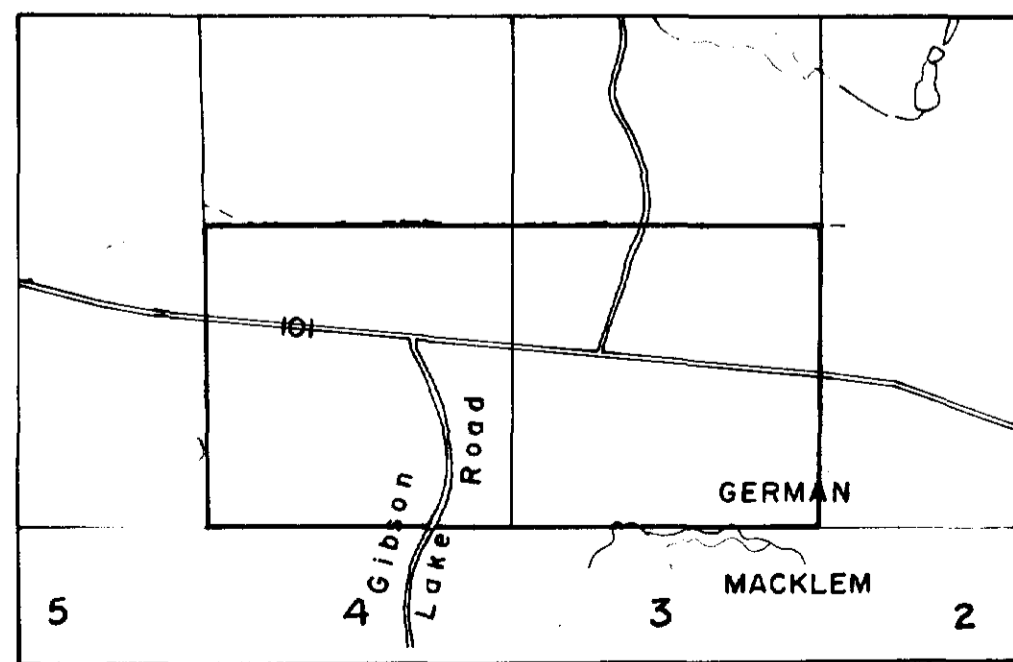
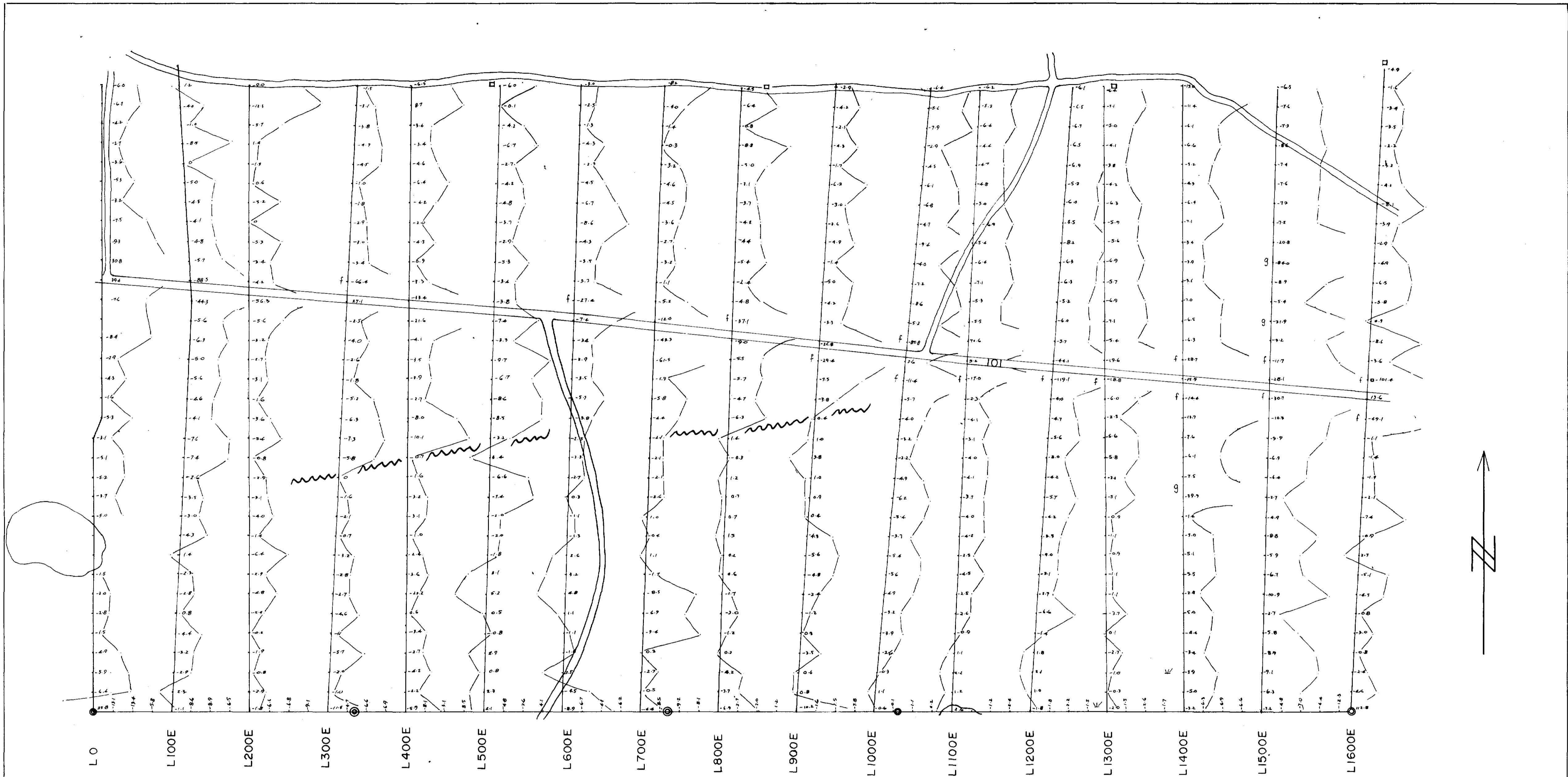
MAGNETIC TOTAL FIELD SURVEY
 ON THE PROPERTY OF
G.K. STRINGER LTD.
 GERMAN TOWNSHIP, ONTARIO



JULY, 1986 Figure 1

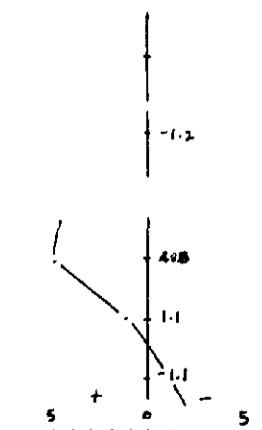
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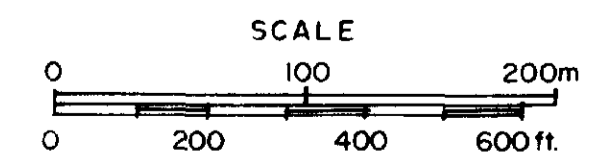
LEGEND

- Measurement station marked by picket
- Vertical magnetic gradient (gammas/metre)
- Profile of vertical magnetic gradient (gammas/metre)



INSTRUMENT: Scintrex MP3 Proton Magnetometer, No.8503234

MAGNETIC VERTICAL GRADIENT SURVEY
 ON THE PROPERTY OF
G.K. STRINGER LTD.
 GERMAN TOWNSHIP, ONTARIO



JULY, 1986

Figure 2

