

32E04SW0010 2.10134 ABBOTSFORD

REPORT ON III

AIRBORNE GEOPHYSICAL SURVEY

ON THE PROPERTY OF

GOLDSTREET RESOURCES LTD.

ABBOTSFORD TOWNSHIP, ONTARIO

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H. FERDERBER GEOPHYSICS LTD.

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April 28, 1987 Val d'Or, Quebec

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R.A. Campbell B.Sc. Geologist REPORT ON THE AIRBORNE GEOPHYSICAL SURVEY ON THE PROPERTY OF GOLDSTREET RESOURCES LTD. ABBOTSFORD TOWNSHIP, ONTARIO

INRTODUCTION

On February 4, 1987 an airborne geophysical survey was carried out on the property of Goldstreet Resources Ltd. in Abbotsford Township, Ontario. Magnetic and VLF-electromagnetic data was collected by the airborne division of H. Ferderber Geophysics Ltd. The survey was flown from a base at Val d'Or, Quebec. A total of 61.3 miles of data was collected.

The magnetic survey provides information which helps define the underlying geological structures and identifies any potential economic concentrations which may contain variations in accessory magnetic minerals. The VLF-electromagnetic survey helps define conductive zones which may represent shear zones and/or metallic sulphide deposits containing gold mineralization.

PROPERTY LOCATION, DESCRIPTION AND ACCESS

The property is comprised of 62 claims in Abbotsford Township, and Larder Lake Mining Division, Ontario. The claim block covers an area of approximately 992 hectares. The claims are registered with the Mining Recorder's office at Kirkland Lake and are listed in Appendix 1.

The survey area is located approximately 51 km (32 miles) northwest of La Sarre, Quebec and 76.8 km (48 miles) northeast of Iroquois Falls, Ontario. Access is best obtained by taking Provincial Highway 652 east from Cochrane to Hepburn Township then travelling north on a secondary road. Numerous bush roads, west from the secondary road traverse the property.

Approximately one third of the claim group is forested with the rest having been cut. A creek is located in the western part of the property. Numerous swamps are situated along the creek and in the southeastern corner of the claim group. The physiography is that of a low-lying area generally exhibiting low relief. A few small sand, gravel and clay hills are situated on the property.

Supplies, services and qualified manpower are available in the La Sarre - Iroquois Falls - Cochrane areas. The property is located in the Abitibi Volcanic Belt of the Superior Province of the Canadian Shield. The Abitibi Volcanic Belt extends for nearly 350 miles in a west-east direction from Timmins to Chibougamau. It is host to a variety of precious and base metal deposits including the Timmins, Kirkland Lake, Noranda, Val d'Or and Chibougamau mining camps.

The Abitibi Volcanic Belt is comprised of a complex assemblage of interbedded volcanic and sedimentary rocks intruded by a variety of intrusives from ultrabasic to granitic in composition. The rocks are Archean in age and have been metamorphosed to a greenschist facies. Numerous late Precambrian diabse dykes cut formations of the belt. The rocks generally strike east-west, have a vertical dip and are highly folded and faulted. Geological interpretation of the Abitibi Volcanic Belt is complicated by both the wide scattering of outcrops and the complex structural relationships.

The Ontario Dept. of Mines Map 2025, South Patten River Area, at a scale of one inch to 0.5 mile (1963), outlines the geology of the property. Outcrop exposure is good in the north-central and central parts of the property. Outcrops of amphibolite, tuff and acid volcanics have been found on the claim group. The geology map indicates that two units of amphibolite are separated by a unit of acid volcanics-tuff in the northern half of the property. A set of joints was found in the northernmost amphibolite unit. A diamond drill hole was drilled near a creek in the southcentral region of the claim group and two sulphide occurrences have been found 3.6 km southeast of the property.

INSTRUMENTATION AND SURVEY METHODS

The survey was completed using a Cessna 172, fixed wing aircraft (CF-AAV) owned and operated by H. Ferderber Geophysics Ltd. It was piloted by D. Fauvelle of Val d'Or. The navigator/operator was T. Alvi, also from Val d'Or. Geophysical sensors were mounted in modified wing tips. GEM-GSM-9 BA Overhauser Proton Precession Mangetometer and Herz Totem 2AG VLF-electromagnetic systems were used. The magnetometer has a resolution of 0.5 gammas, recorded on analogue tape. The VLF-EM measures the change in total field and vertical quadrature field on two channels simultaneously, with an accuracy of 1%. The data is then transferred from the solid state memory to a printer. The transmitting station at Cutler, Maine, (NAA), frequency 24.0 kiloherz was used.

The survey was conducted at an aircraft altitude of 250 feet above ground level. The altitude was measured with a Bonzer Mark 10 radar altimeter. A survey speed of approximately 100 miles per hour was used. Navigation was visual with reference to air photo mosaics at a scale of 1:15840 (one inch to 1320 ft.). Lines flown in north-south directions at spacings of 440 feet were recovered from the photo mosaics. Manual fiducials were recorded simultaneously on the geophysical tapes and solid state memory.

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DATA PRESENTATION

Flight lines, fiducial points and geophysical responses were reproduced from the air photo mosaics on maps at a scale of 1:15,840. The outline of the claim group and claim map are shown on each sheet.

The aeromagnetic data was corrected for diurnal variations by using a base line as reference. The data was then reduced to a base level of 58,000 gammas, contoured at 25 and 100 gamma intervals and presented on Map MG-1.

The VLF-EM data was transferred from the Totem 2AG memory to printed form. A base value was determined and the change in the total field strength as a percentage of the base value was calculated. The values were plotted on map EM-1. The positive values were contoured at intervals of 2%. The conductor axes were determined and labelled 1, 2, 3, etc. No priority was attached to the numbering system.

RESULTS AND INTERPRETATION

Magnetic Survey

The magnetic survey outlined a series of lows and highs striking 100° to 120° across the property. A wide anomalous magnetic high was located in the central part of the claim block. Approximately 0.6 km to the north, in the north-central part of the property, another high was delineated. These highs represent possible units of amphibolite originally basic and diabase volcanics. In the western part of the claim group the distortion and shape of the magnetic contours suggest that a north-south fault may exist on the property. The possible fault, F, is shown on map MG-1.

The lows located between the two highs and in the southwestern part of the claim group. They represent units of rocks with low magnetic susceptibility probably acid volcanics, as indicated by the map 2025. Small isolated highs could represent variations in magnetite content in the volcanic rock.

In the northwest corner of the property two highs striking northeast could be caused by an underlying diabase dyke.

VLF-Electromagnetic Survey

The VLF-electromagnetic outlined seven conductive zones on the Goldstreet Resources property. All the conductors except the west end of zone 2, appear to represent possible bedrock conductors, not related to topographical features.

Conductive zone 1 is comprised of 3 conductors, two striking southeast and one striking northeast. The area is located along the edges of a magnetic high. These three conductors could represent a set of joints with the southeast conductors located over an amphibolite-acid volcanic contact.

Zone 2 strikes 100° across the northern part of the property. The western conductor is located near a creek and may be caused by conductive overburden. The eastern conductor is 1.2 km long and is situated along the edge of a magnetic high, to the north, and a low, to the south. It represents a possible shear zone along a amphibolite - acid volcanic contact.

Zone 4 is comprised of 2 conductors separated by 0.4 km of nonconductive material. The northwest conductor is located over the south edge of a magnetic high and could be a sheared contact.

Conductive zones 5, 6, and 7 are situated in the northern part of a broad magnetic low. They could be the results of shear zones within the acid volcanic rocks. Map 2025 indicated that a diamond drill hole is located near the east end of these conductive zones.

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CONCLUSIONS AND RECOMMENDATIONS

The airborne geophysical surveys were successful in outlining the underlying geology and delineating 7 conductive zones which may represent mineralized shears. The magnetic survey indicates that the property is underlain by east-southeast striking bands of amphibolite and acid volcanics. In the northwest corner two highs represent a possible northeast striking diabase dyke. Distortions in the magnetic contours indicate that a possible north striking fault exists in the western quarter of the property.

All seven conductive zones (except the west end of Zone 2) represent bedrock conductors outlining possible mineralized shears. Zones 1, 2, 3 and the western condutor of Zone 4 are possible shear zones located near contacts between amphibolite and acid volcanics. Zones 4 (east), 5, 6 and 7 are situated within magnetic lows and represent possible shears within acid volcanics. The east ends of these conductors are located near an old diamond drill hole, along strike 3.6 km northwest of sulphide occurrences.

Further work is warranted on the property. Ground magnetic, horizontal loop-electromagnetic and geology surveys should be completed. The horizontal loop-EM should be carried out in an attempt to locate and define the conductive zones. The geology survey should concentrate in mapping and sampling mineralized shear zones. The magnetic survey will help outline the geology in overburden covered areas. The geology and magnetic surveys will help rate the electromagnetic conductors as potential drill targets.

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Respectfully submitted,

H. Ferderber Geophysics Ltd.

RA Conto-

R. A. Campbell, B.Sc. Geologist.

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01	58	94
02	59	95
03	60	96
04	70	97
05	71	98
06	72	99
07	73	
08	74	
859225	75	
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860041	78	
42	79	
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Ministry of Northern Development and Mines





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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.

Township or Area Abbotsford Township MINING CLAIMS TRAVERSE Claim Holder(s) Gold Fred Resources List numerically	n
Claim Holder(s) S_{1} Ke_{1} Ke_{2} List numerically $(S_{1}) = S_{1}$ $(S_{1}) = S_{1}$	-
Survey Company <u>H. Ferderber Geophysics Ltd.</u> L 843499 et.al. R A Campbell (prefix) (number)	
Author of Report R. A. Campbell (prefix) (number) See attached list	
Address of Author 169_Perreault Ave., Val d'Or, Que	
Covering Dates of Survey Feb. 4, 1987 (linecutting to office)	•••••
Total Miles of Line Cut 63.1	
SPECIAL PROVISIONS DAYS	
<u>CREDITS REQUESTED</u> Geophysical	
Electromagnetic	
ENTER 40 days (includes	·
ENTER 20 days for each –Other additional survey using Geological	:
same grid	
Geochemical	
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)	
Magnetometer <u>35</u> Electromagnetic <u>35</u> Radiometric	
\wedge	
DATE: April 30, 1985 GNATURE: KA Calm Author of Report or Agent	
Res. GeolQualifications	
Previous Surveys	
File No. Type Date Claim Holder	
TOTAL CLAIMS 62	
TOTAL CLAIMS 52	

937 (85/12)

GEOPHYSICAL TECHNICAL DATA

UKOU	111) SURVEYS - 11	more than one survey, s	pecify data for each	type of survey	
Number of Stations			Numbe	er of Readings	
Station	interval		Line sp	bacing	
Profile	scale	······································	-		
Contou	ur interval				
Instr	rument				
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Typ	e of electrode			······································	



SELF POTENTIAL

Instrument	Range
Survey Method	
Corrections made	
RADIOMETRIC	
Instrument	
Values measured	
Energy windows (levels)	
Height of instrument	Background Count
Size of detector	
Overburden	
(type, depth — include or	utcrop map)
OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)	
Type of survey	
Instrument	
Accuracy	
Parameters measured	
Additional information (for understanding results)	
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AIRBORNE SURVEYS

Type of survey(s)	VLF-EM and	Magnetor	neter
Instrument(s)	Herz Totem	2AG and	GEM GSM-9BA
Accuracy	(specify f 1% and 0.5	or each type of su gammas	irvey)
Aircraft used	(specify f Cessna 172	or each type of su	irvey)
Sensor altitude	250 feet		
Navigation and flight path re	covery method	Visual	navigation on airphoto-mosaic
		fiducial	points
Aircraft altitude	250 feet		Line Spacing440 feet
Miles flown over total area	63.1		Over claims only54.3

GEOCHEMICAL SURVEY - PROCEDURE RECORD

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Numbers of claims from which samples taken_____

Total Number of Samples Type of Sample (Nature of Material)			
Average Sample Weight Method of Collection	p. p. m. □ p. p. b. □		
Soil Horizon Sampled			
Horizon Development			
Sample Depth			
Terrain			
Drainage Development	Field Laboratory Analysis		
Estimated Range of Overburden Thickness			
-	Extraction Method		
	Analytical Method		
	Reagents Used		
SAMPLE PREPARATION	Commercial Laboratory (tests)		
(Includes drying, screening, crushing, ashing)	Name of Laboratory		
Mesh size of fraction used for analysis	Extraction Method		
	Analytical Method		
	Reagents Used		
	General		
General			



Ministry of Northern Development and Mines

July 27, 1987

Your File Nos. 234 & 235 Our File: 2.10134

Mining Recorder Ministry of Northern Development and Mines 4 Government Road East Kirkland Lake, Ontario P2N 1A2

Dear Sir:

RE: Notice of Intent dated June 30, 1987 Airborne Geophysical (Electromagnetic & Magnetometer) Surveys on Mining Claims L 843499, et al, in Abbotsford Township

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

R.M. Charnesky (Mrs) Acting Manager Mining Lands Section Mineral Development and Lands Branch Mines and Minerals Division

Whitney Block, Room 6610 Queen's Park Toronto, Ontario M7A 1W3

Telephone: (416) 965-4888

ABAB/mc

cc: Gold Street Resources Ltd Thornhill, Ontario

> R.A. Campbell Val d'Or, Quebec

Resident Geologist Kirkland Lake, Ontario Kirkland Lake, Ontario

Carl P. Forbes

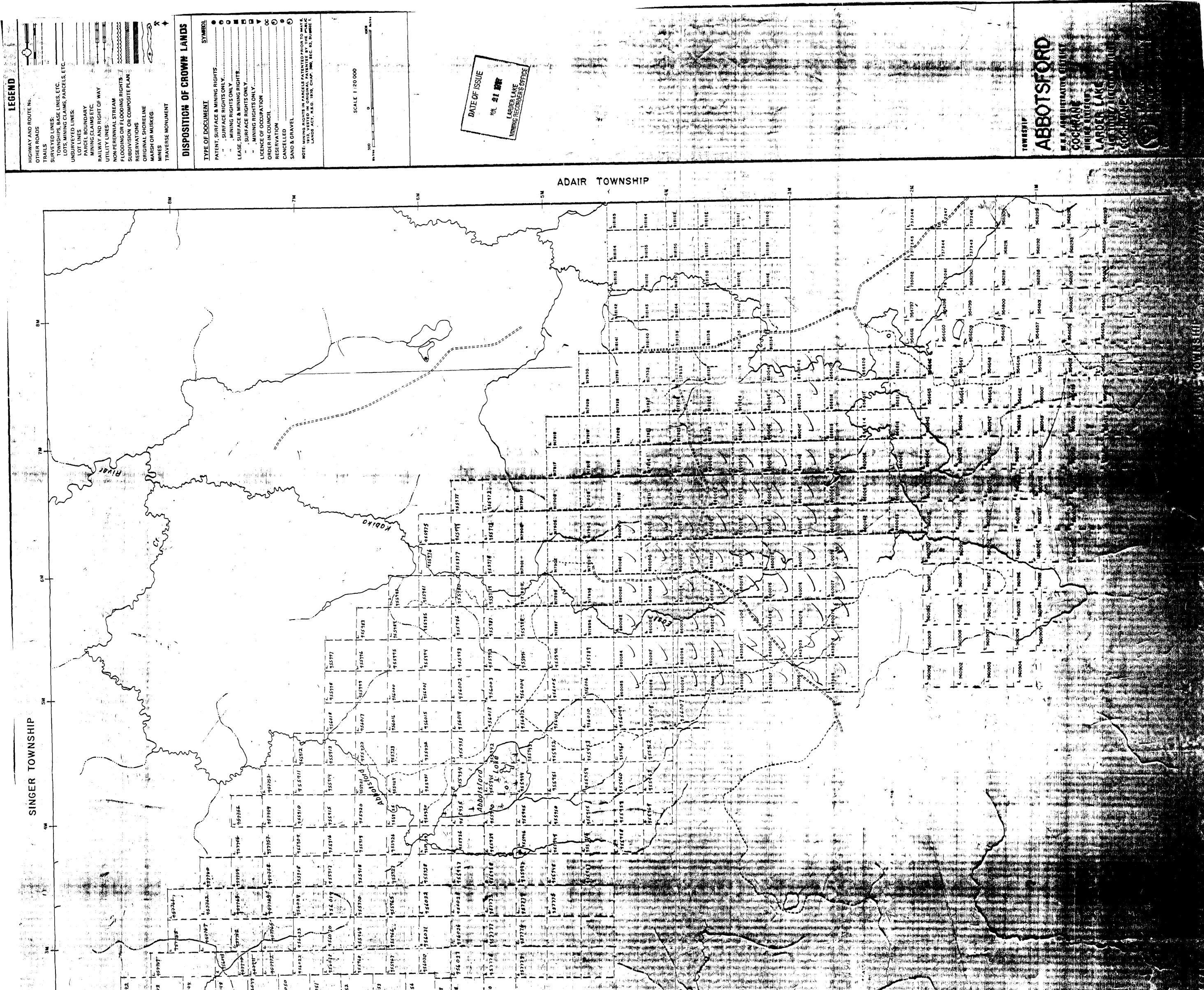
Mr. G.H. Ferguson Mining & Lands Commissioner Toronto, Ontario

Encl.



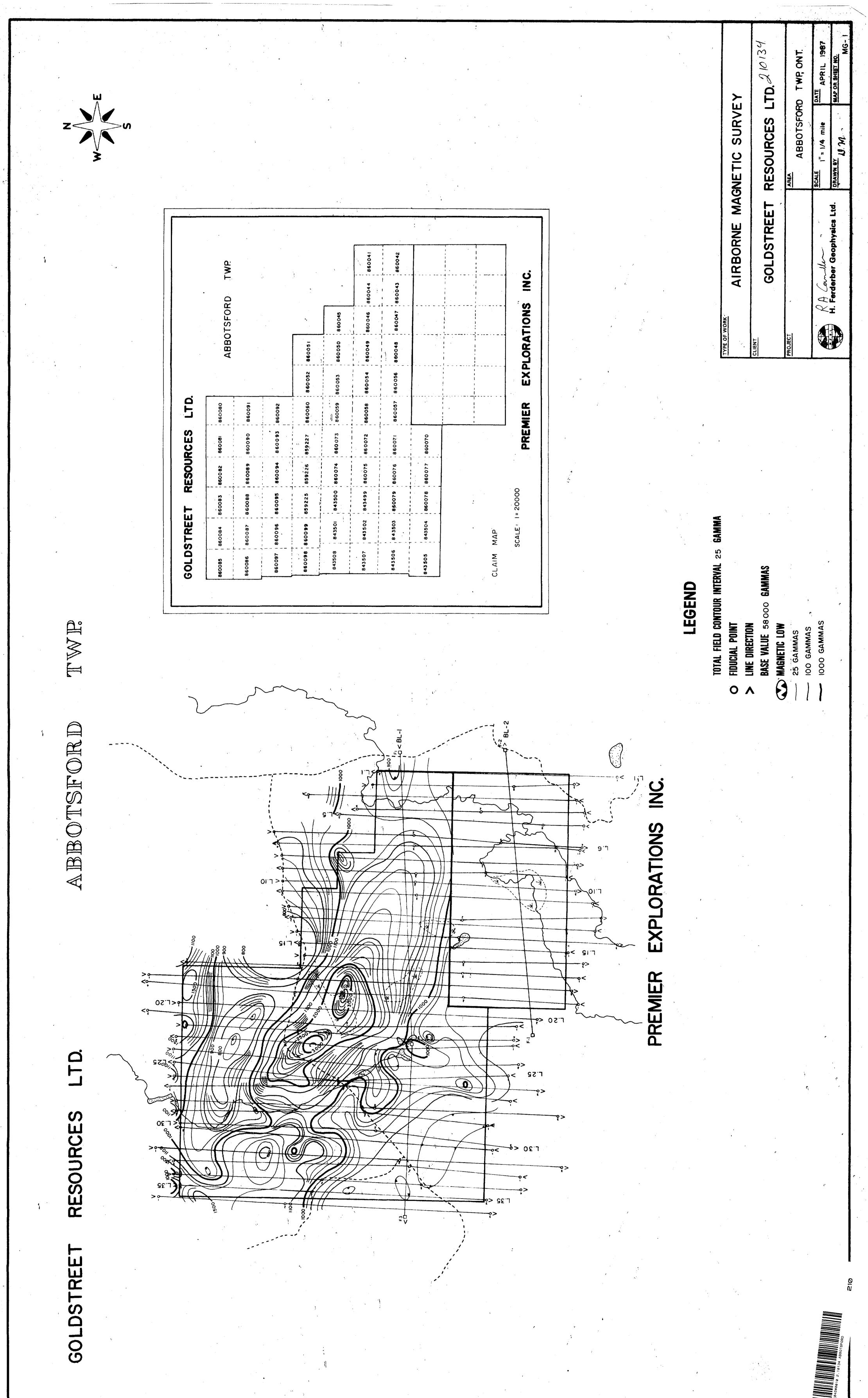
Technical Assessment Work Credits Date June 30, 1987 June 30, 234, 235

Recorded Holder	GOLDSTREET RESOURCES			
ownship or Area	ABBOTSFORD T	OWNSHIP		
Type of survey and num Assessment days credit pe		Mining Claims Assessed		
Geophysical	·			
Electromagnetic	35 days			
Magnetometer	35 days	L 843499 to 508 inclusive 859225 - 26 - 27		
Radiometric	days	860041 to 54 inclusive 860056 to 60 inclusive		
Induced polarization	days	860070 to 99 inclusive		
Other	days			
Section 77 (19) See "Mining Claims	Assessed'' column			
Geological	days			
Geochemical	days			
Man days []	Airborne 🛛			
Special provision	Ground			
Credits have been reduced becau coverage of claims.	use of partial			
Credits have been reduced becaute to work dates and figures of app				
pecial credits under section 77 (16	6) for the following n	nining claims		
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o credits have been allowed for th				
not sufficiently covered by the s		insufficient technical data filed		



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