



42A05NE0317 2.9532 CARSCALLEN

010

REPORT TO HAWK RESOURCES INC.  
ON AN OVERTBURDEN DRILLING PROGRAM  
ON THEIR CARSCALLEN TOWNSHIP PROPERTY  
TIMMINS, ONTARIO

RECEIVED

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MINING LANDS SECTION

C. von Hessert & Associates Ltd.

October 1986



42A05NE0317 2.9532 CARSCALLEN

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Map No. 5: Compilation Map of Hawk Resources  
Carscallen Twp Property. Scale 1:2400

## 1. INTRODUCTION

This report has been prepared for the management of Hawk Resources Inc. to review the results of work conducted on their Carscallen Township property, Timmins, Ontario during the summer and autumn of 1986.

During this period two surveys were conducted; a brief magnetic and horizontal loop geophysical survey which traversed lines cut to fill-in a 1983 grid; and, more importantly, an overburden drill program which tested target areas selected on the basis of 1983 and 1986 field work.

The Carscallen claim group was originally staked in 1981 and has been the subject of a report written by Thomas Skimming for G. M. Ventures. In 1983, C. von Hessert & Associates Ltd. supervised a summer prospecting program on the Carscallen claims. The 1986 work is the result of recommendations made at that time.

The current field work was conducted and supervised by Richard Sproule, F.G.A.C., and Scott Hodges in behalf of C. von Hessert & Associates Ltd.

## 2. SUMMARY

During the period between the 9th of June and the 5th of July, 1986, twelve miles of in-fill line were cut on the Carscallen Township claims of Hawk Resources Inc. Five miles were surveyed by a total field magnetometer and eleven miles traversed by horizontal loop EM.

Results of the geophysical surveys indicate that potentially gold-bearing iron formation may exist on the Hawk claims. The nearby Jowsey-Denton property on which an occurrence of high-grade gold was discovered in the 1920's is underlain by similar iron formations.

During the period August 18th to August 27th, 1986, a two stage overburden drilling program was conducted on the Carscallen Property. A total of thirty holes totaling 1020 feet were tested with a reverse circulation drill. Because the overburden was too shallow to permit the return of circulation in several areas, it was decided to complete the overburden program using a portable Wacker drill. As a result, an additional thirty four holes were drilled with the Wacker for a total of 221 feet.

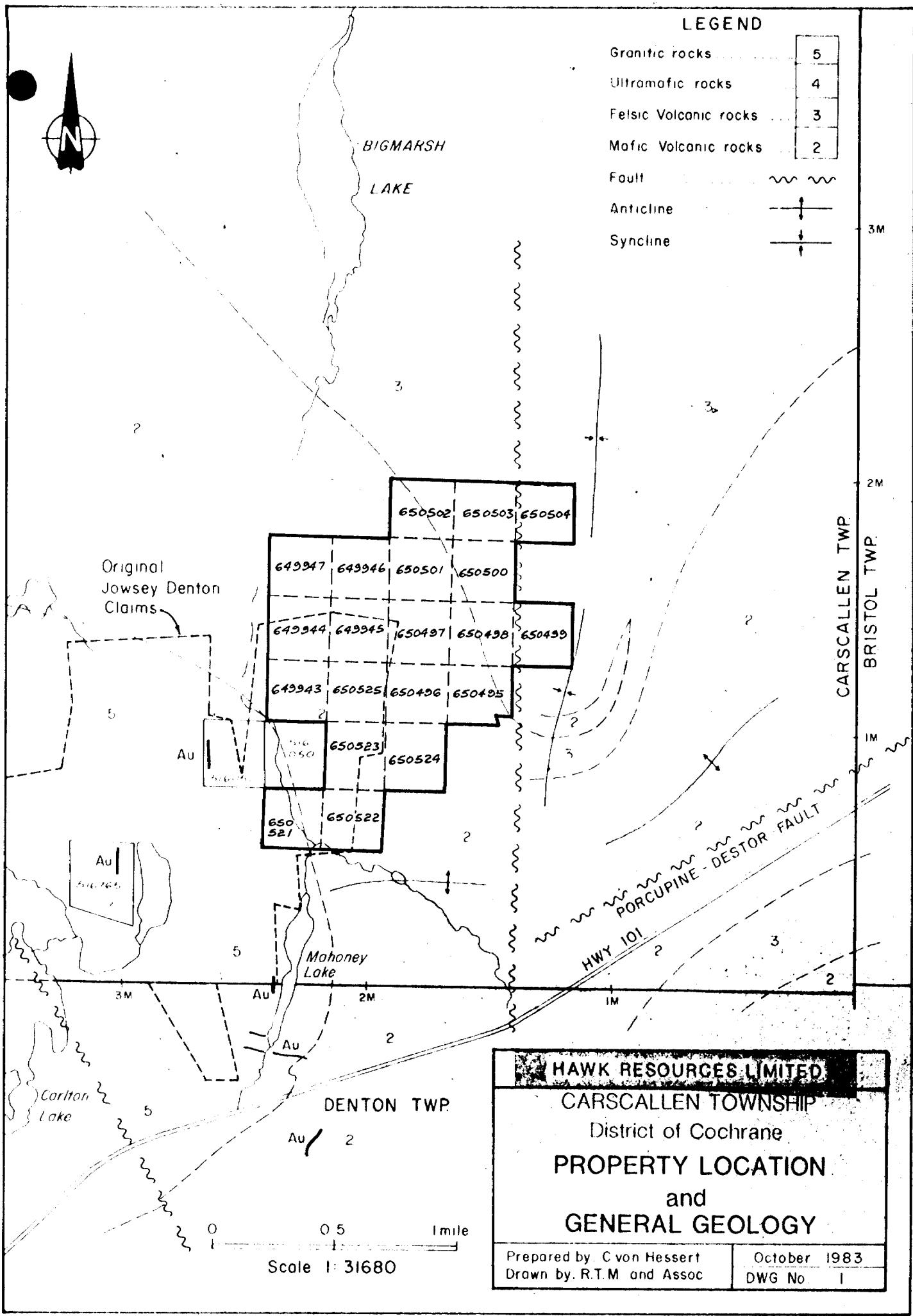
Basal till and bedrock fragments (when available) were assayed for gold. One sample returned 110 parts per billion gold and represents an anomaly coincident with weak gold in soil anomalies outlined in 1983. A shallow, three hole diamond drill fence directed across the presumed bedrock strike in the vicinity of the overburden drill anomaly is recommended to explore for gold mineralization.

### 3. PROPERTY DESCRIPTION

The Hawk Resources Inc. property consists of 20 contiguous unpatented mining claims located in southern Carscallen Township, District of Cochrane, City of Timmins, Ontario.

The claims are numbered as follows;

P649943-P649945  
P554946-P654947  
P650521-P650525  
P650495-P650504



The claim group is easily accessible by a main haulage road of the Mallette Lumber Company which connects with Highway 101, seventeen miles west of downtown Timmins (see Dwg. No. 1, Property Location Map). Leading from this main haulage road is a network of secondary roads which transgress the Hawk claims.

The claims are covered by a thick secondary growth of poplar which has sprung up following extensive clear cut logging.

Rock outcrop is sparse and confined to a relatively small area in the southern tier of claims. Approximately the north one-third of the claim group is wet and marshy and has not been logged.

#### 4. REGIONAL GEOLOGY

Rocks underlying the Hawk Resources claims are Precambrian in age and belong to the Abitibi supergroup of volcanics and associated granitic intrusives. The geology may be viewed on the Cote-Eldorado Sheet, Ontario Department of Mines Map P118 or Map 359 and P23 also published by the Ontario Department of Mines (Ontario Geological Survey). The scale of these maps ranges from 1 inch to 1/4 mile to 1 inch to 1 mile. A lack of detail makes these maps poor guides to local geology. Broadly speaking, the claims appear to be underlain by acid volcanics, mafic volcanics, iron formation and greywacke.

Carscallen Township lies at the west end of the Porcupine-Destor Fault at the point where it eventually disappears. This structural feature is of considerable economic importance because many of the gold mines in the Timmins camp lie on, or within a few kilometers

of the fault and are thought to be genetically related to it.

Late Precambrian diabase dykes striking roughly north-south and crosscutting both volcanic and granitic intrusives are common in Carscallen Township and the entire Timmins camp.

## 5. GEOPHYSICAL SURVEYS:

### a) Magnetic

A total field ground magnetic survey was conducted over five miles of fill-in lines cut on the Hawk Resources Inc. property in 1986. Readings were taken at one hundred foot intervals except in those areas where steep magnetic gradients required additional stations. Data were corrected for diurnal variations and integrated with similar 1983 data. Results are plotted on drawing number 4.

### b) Horizontal Loop

A horizontal loop electromagnetic survey was conducted over eleven miles of fill-in lines cut on the Hawk Resources property in 1986. A 100 metre length cable was utilized and readings were taken every 100 feet at 44, 888, and 1777 hertz on an Apex Max-Min II. The data are plotted on drawings 1, 2 and 3. In general, the Max-Min survey results are disappointingly noisy and difficult to interpret. Several weak conductors are evident which probably correlate with graphitic pelites. Conductor traces are integrated with all data available and are plotted on drawing number 5, a compilation map.

The magnetic and EM surveys are consistent with an underlying geology comprised of a suite of steeply dipping generally north south trending volcanics, weak iron formation and pelitic rocks

with sufficient graphite or pyrite to be conductors relative to their surrounding rocks. Magnetic contours and a 1983 VLF-EM survey suggest that these rocks are offset by northwest southeast trending shears which may be appropriate sites for vein type gold mineralization, particularly when they intersect iron formation.

## 6. OVERBURDEN DRILLING

During the period August 18 through August 27th, 1986, a two stage overburden drilling program was undertaken on the Carscallen Township property of Hawk Resources. Targets were selected on the basis of a 1983 field program composed of soil sampling, geologic mapping, and ground geophysics supplemented by 1986 fill-in geophysics.

Quite early in the program it became evident that the reverse circulation drill chosen for the job was inadequate because in several locations, although outcrop was very sparse, overburden was too thin to allow sample return. Moreover, there were other areas on the claims which were inaccessible to heavy equipment due to swampy ground. As a result, only eighteen holes of a total of thirty nine holes drilled with the reverse circulation drill returned samples. In the course of drilling with this drill, a total of 1020 feet were completed.

Subsequently, a portable Wacker drill was employed to collect samples from those locations where the reverse circulation drill could not function. A total of thirty four sites were tested with the Wacker drill for a total of 221 feet. Unlike the reverse circulation drill which returns a continuous sample and can drill into bedrock for short distances, the Wacker drill only collects a two foot sample from the bottom of the hole and under ideal conditions is capable of retrieving only a small chip of bedrock.

In total, 73 samples were collected and sent to Swastika laboratories for gold fire assay. No attempt was made to perform a size analysis or to separate heavy metals.

Seven samples returned assays greater than nil. A single sample returned an assay of 120 parts per billion gold from a site which is in the vicinity of other relatively low, but anomalous soil gold anomalies discovered in 1983. Because high grade gold is known to occur on the neighbouring Jowsey-Denton claims in a geologic environment thought to be similar to Hawk property, a limited diamond drill program is recommended.

## 7. CONCLUSIONS AND RECOMMENDATIONS

On the basis of the recently completed overburden drill program and work carried out on adjacent properties from the 1920's to the present day, it can be concluded there exists the possibility that the Hawk claims host vein-type iron formation gold.

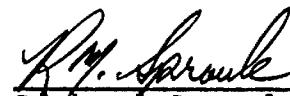
Gold occurs on the former Jowsey-Denton (claims 516050 and 51605 shown on drawing number 1.) in association with calcite and quartz gash veins crosscutting iron formation (the wire gold occurrence) and with associated sulfide iron formation.

Overburden drill logs indicate that calcite fragments are present in the till on the Hawk claims. In addition, weak soil gold anomalies and a single overburden drill anomaly suggest that the source may be local.

It is, therefore, recommended that diamond drill holes be placed at the following grid locations 55+75 N., 15+45 W. and at 53+75 N., 16+45 W. with two holes being drilled from each location. The holes would trend north 30° E so as to best intersect the hosting formations and would have an attitude of -45 and -65 degrees.

The program will require a minimum of 750 feet of drilling and is estimated to cost approximately \$30,000 including drilling costs, mobilization and demobilization, supervision, assaying, report preparation and travel expenses.

October 31, 1986

  
Richard Sproule, FGAC

8. REFERENCES CITED

Skimming - 1981, Report on the Property of G.M. Ventures Ltd.,  
Carscallen Township Claims, District of Cochrane  
Ontario

Skimming - 1981, Report on the Property of All Star Resources Ltd.  
Carscallen Township Claims, District of Cochrane,  
Ontario

Skimming - 1983 Report on the Property of Cleyo Resources Inc.,  
Carscallen Township Claims, Ontario.

von Hessert - 1983 Report on the 1983 Summer Prospecting Program  
on the George Martin Properties, Carscallen  
Township, Timmins, Ontario.

von Hessert - 1983 Report to Cleyo Resources on their 1983  
Summer Prospecting Program, Carscallen Town-  
ship, Timmins, Ontario.

von Hessert - 1984 Summary of 1983 Drill Results for Cleyo  
Resources Inc. on their Big Marsh Property  
Carscallen Township, Porcupine Mining District,  
Ontario.

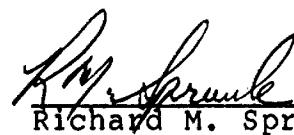
Geology of the Keefer-Eldorado Area, ODM 47th Annual Report, Vol.  
XLVII, Part IV, 1938

## 9. CERTIFICATE OF QUALIFICATIONS

I, Richard Sproule, of the Town of Beamsville, Regional Municipality of Lincoln, in the province of Ontario, Canada, do hereby certify that:

1. I am a consulting geologist, an associate of the firm of C. von Hessert & Associates Ltd., with an office located at 306-45 Richmond St. West, Toronto, Ontario.
2. I am a graduate of Dalhousie University, Halifax, Nova Scotia, having received the degree of Bachelor of Science (Geology) in 1979. I have practised in the field of mineral exploration since 1976.
3. I am a fellow of the Geological Association of Canada.
4. I conducted and supervised the exploration program carried out on Hawk Resources' Carscallen Township property.
5. I have no interest, direct or indirect, in the properties or securities of Hawk Resources Inc.

October 31, 1986

  
Richard M. Sproule

Dual 5930  
J.

**APPENDIX: ASSAY DATA AND OVERBURDEN DRILL LOGS**



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 64091

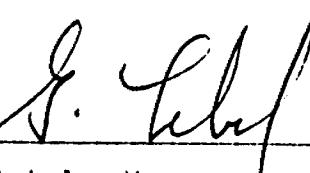
Date: September 3rd, 1986

Received August 25th, 1986      39      Samples of Till

Submitted by Hawk Resources, Vancouver, B.C.

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2573	Nil	2593	10
2574	Nil/Nil	2594	Nil
2575	Nil	2595	Nil
2576	Nil	2596	Nil
2577	Nil	2597	Nil
2578	Nil	2598	Nil
2579	Nil	2599	Nil
2580	Nil	2600	Nil
2581	Nil	2601	Nil
2582	Nil	2602	Nil
2583	20	2603	Nil
2584	110/120	2604	Nil
2585	Nil	2605	Nil
2586	Nil	2606	Nil
2587	Nil	2607	Nil
2588	Nil	2608	Nil
2589	20	2609	Nil
2590	Nil	2610	30
2591	10	2611	60/60
2592	10		

Per



G. Lebel - Manager

ESTABLISHED 1928



# SWASTIKA LABORATORIES LIMITED

P.O. BOX 10, SWASTIKA, ONTARIO P0K 1T0

TELEPHONE: (705) 642-3244

ANALYTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## Certificate of Analysis

Certificate No. 64128

Date: September 5th, 1986

Received August 29th, 1986      34

Samples of Till

Submitted by Hawk Resources Ltd., Vancouver, B.C.

SAMPLE NO.	GOLD PPB	SAMPLE NO.	GOLD PPB
2612	Nil	2629	Nil/Nil
2613	Nil	2630	Nil
2614	Nil	2631	Nil
2615	Nil	2632	Nil
2616	Nil	2633	Nil
2617	Nil/Nil	2634	Nil
2618	Nil	2635	Nil
2619	Nil	2636	Nil
2620	Nil	2637	Nil
2621	Nil	2638	Nil
2622	Nil	2639	Nil
2623	Nil	2640	Nil
2624	Nil	2641	Nil
2625	Nil	2642	Nil
2626	Nil	2643	Nil/Nil
2627	Nil	2644	Nil
2628	Nil	2645	Nil

Per \_\_\_\_\_

G. Lebel - Manager

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-1Property: CARSCHLLENLocation: LN 74N 81WTotal Depth: \_\_\_\_\_  
Sheet 1 of 1

DEPTH Feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-14	- - - - -	SAND & SILTY CLAY		
14-28	- - - - -	SILTY CLAY WITH COBBLES = 1 FT THICK OF GRANITE QUARTE & MAFIC VOLCANICS		
28-38	- - - - -	SANDY CLAY		
38-43	- - - - -	APPLE GREEN INTERMEDIATE VOLCANIC ROCK WITH EPIDOTE & CALCITE & QUARTE VIGNETS		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-2Property: CARSCHALENLocation: LN 72N 20+50WTotal Depth: 8 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-4	<u>Tire w/ CABLES</u>	Mud & Boulders ≤ 2ft Diam. No RETURN		
4-8	<u>Rock COMP?</u>	Bed Rock? No RETURN		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-3

Property: CARS CALLEN

Location: LN 68N 19W

Total Depth: 3 feet  
Sheet 1 of 1

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-1 ft	TILL Rock Comp?	Soil SANDY LOAM No Return		
1-3 ft		BED Rock? No RETURN REACHED INTO HOLE & PULLED OUT. DIORITE CHIPS		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-4

Property: CARSCHALEN

Location: LN 64N 18W

Total Depth: 11 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-9	TILL	TILL No Return		
9-11	Rock Comp?	Bed Rock? ,no Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

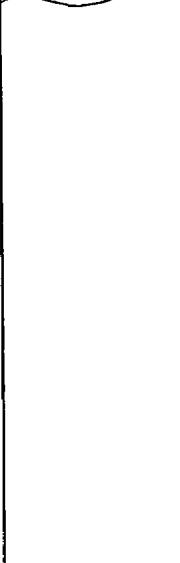
Drill Hole No.: HR-5

Property: CARSCALLEN

Location: LN 64N 111 75W

Total Depth: 42 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 39		SANDY CLAY WITH GRANITE QUARTZ & INTERMEDIATE TO MNFIC VOLCANIC BOULDERS .5-2 FEET DIA. @ 12-14 FEET & 24-34 FEET EPIDOTIZED (APPLE GREEN) INTERMEDIATE TO FERASIC VOLCANICS FROM 40-42 FEET. QUARTZ VENGETS COMMON. THIS ZONE ALSO CONTAINS 1-2% PYRITE		
39-39 42				

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

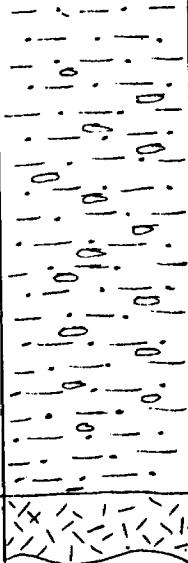
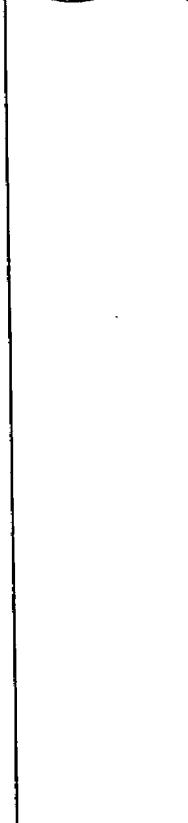
Drill Hole No.: HR - 6

Property: CARSCALLEN

Location: LN 60N 161 50W

Total Depth: 29 feet

Sheet 1 of 1

<u>DEPTH</u> feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 26		TILL SANDY CLAY FROM 4-24 FT COBBLES OF GRANITE & MAFIC VOLCANICS ARE FREQUENTLY PENETRATED		
26 - 29		INTERMEDIATE VOLCANICS WITH THIN QUARTZ LIGNS & MINOR <<1% AMOUNTS OF PYRITE		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-7

Property: CARSCALLEN

Location: LN 60 N 18W

Total Depth: 34 feet

Sheet 1 of 1

<u>DEPTH</u> feet	<u>GRAPHIC LOG</u>	<u>DESCRIPTION</u>	<u>SAMPLE NO.</u>	<u>Depth</u>
0-30	.....	TILL SANDY CLAY 24-30 FT COBBLES ≤ 1 FT DIA COMMON COBBLES ARE GRANITIC INTERMEDIATE TO BASIC VOLCANIC INTERMEDIATE TO BASIC VOLCANIC		
30-34	.....	No Quartz Veining = 1% PYRITE		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-8Property: CARSCALLONLocation: Lu 56N 15WTotal Depth: 42 FeetSheet 1 of       

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 24	- - - - -	TILL POOR RETURN TO 14 FEET 14-24 FEET GRANITE & FELSIC VOLCANIC COBBLES ≤ 1 FT COMMON		
24 - 28 ft	- - - - -	SAND		
28 - 30 ft	- - - - -	SANDY CLAY		
30 - 32 ft	- - - - -	SANDY CLAY WITH FINE GRAVEL		
32 - 38	- - - - -	CLAYEY SAND TO SANDY CLAY		
38 - 41	- - - - -	SAND GRADING TO CLAYEY SAND BY 41 FEET		
41 - 42	- - - - -	GRANODIORITE MILKY QUARTZ 40% BLACK FERRO MAGNESIAN MINERALS 40% <sup>50%</sup> PYRITE ≤ 1%		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR 9

Property: CARSCHALEN

Location: LN 54 N 14 W

Total Depth: 1 foot

Sheet 1 of \_\_\_\_\_

DEPTH Feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - .5 ft		Soil No Return		
.5 - 1 Ft		FELSIC VOLCANIC No Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

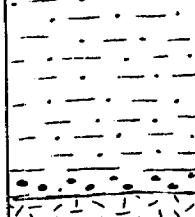
Drill Hole No.: HR-10

Property: CARSCALLEN

Location: LN 54N 16W

Total Depth: 12 feet

Sheet 1 of \_\_\_\_\_

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0- 11 ft		TILL 0-10 ft SANDY CLAY 10-11 ft GRAVELY ZONE		
11- 12 Ft		INTERMEDIATE VOLCANICS WITH ~ 20% QUARTZ CHIPS LOST RETURN		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-11

Property: CARSCHUEN

Location: N 50 N 13 W

Total Depth: 13 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 12		TILL No RETURN		
12 - 13	TILL	Rock No RETURN		
	<i>Rock Comp?</i>			

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-12

Property: CARSCHLLEN

Location: LN 48 N 12 W

Total Depth: 3 feet

Sheet 1 of \_\_\_\_\_

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 2 ft	TILL Rock Comp?	TILL No RETURN		
2 - 3 ft		Rock No RETURN		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-13

Property: CARSCALLON

Location: LN 44N 16W

Total Depth: 0.3 feet

Sheet 1 of 1

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 2 ft		Till No Return		
2 - 3 ft		Rock No Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-14

Property: CARSCALLEN

Location: LN 34 N 7W

Total Depth: 11 feet

Sheet 1 of \_\_\_\_\_

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 7		TILL No Return		
7 - 11		Rock No Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-14a

Property: CARSCALLON

Location: LN 48 N 8W

Total Depth: 1 ft

Sheet 1 of \_\_\_\_\_

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
		TRIED TO MOVE ON SETE TO WGT GOT DRILL STUCK		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-15Property: CARSCALLENLocation: LN 32N 7WTotal Depth: 42 ftSheet 1 of 1

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 39		TILL 0-29 COARSE MIXED SAND & CLAY 22-23 INTERMEDIATE TO FELSIC VOLCANIC Boulder 23-39 SANDY CLAY GRANITE & MAFIC VOLCANIC CUBBLES ≤ 1 FT DIA COMMON FROM 24-30 FT INTERMEDIATE TO FELSIC VOLCANIC		
39 - 42		Lost Return @ 40 ft		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

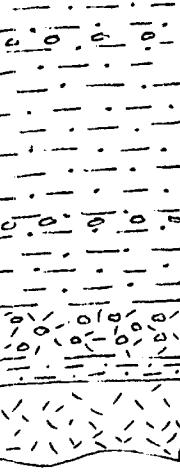
Drill Hole No.: HR-15a

Property: CARSCALLEN

Location: LN 30N 11+50W

Total Depth: 24 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-24		TILL 0-16 ft SANDY CLAY FELSIC VOLCANIC COBBLES ≤ 1 FT @ 14-12 ft 16-19 Ft GRANITE (PINK) BOULDER 19-20 Ft SANDY CLAY WITH GRANITE INTERMEDIATE VOLCANIC PEBBLES		
20-24		INTERMEDIATE VOLCANIC WITH MINOR QUARTZ VIGNING		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-16

Property: 4W 32N 10W

Location: N32W 10W

Total Depth: 23 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-23	○ ○ ○ ○ ○ ○	TILL VIRTUALLY NO RECOVERY TO 18 ft MANY CAVES 1-2 ft. SANDY CLAY 18-21 ft ROCK LOST RECOVERY @ 21 ft		
21-23	Rock Comp?			

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

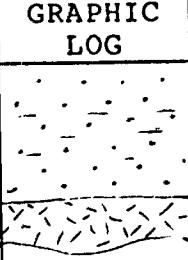
Drill Hole No.: HR-19

Property: CARSCHOLLEN

Location: LN 36N 6W

Total Depth: 9 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 7		SANDY TILL		
7 - 9		MAFIC VOLCANIC WITH 20% PYRITE LOST RETURN @ 9 FEET		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-20

Property: CARSCHALEN

Location: LN 36N 8W

Total Depth: 7 feet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 6		TILL		
6 - 7		Rock No Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-21 Property: CARSCALLEN

Location: LN 38N 7+50W Total Depth: 11 ft

Sheet 1 of 1

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 10 ft		TILL NO RETURN		
10 - 11 ft		ROCK NO RETURN		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-22Property: CARSCALLENLocation: B0 In 55NTotal Depth: 46 ft

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 14	.	COARSE SAND (GRANITIC & VOLCANIC GRAINS)		
14 - 24	.	No RETURN COARSE SAND? & BOULDERS >> 1 FT Dia		
24 - 32	.	COARSE SAND & GRAVEL (FINE) Few BOULDERS		
32 - 34	.	CLAY & SANDY CLAY		
34 - 42		No RETURN		
42 - 44		SILTY CLAY		
44 - 46		FELSIC VOLCANIC.		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR - 23Property: CARSCALLENLocation: LN 56N 3ETotal Depth: 113 feetSheet 1 of 2

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-24	.	SAND WITH MINOR AMOUNTS OF CLAY COBBLES ± 1 FT ENCOUNTERED BELOW 14 FT		
24-34	.	MEDIUM GRAINED SAND ONLY 2 BOUNDERS ENCOUNTERED 1 GRANITIC 1 BIOTITE GRANITES		
34-48	.	COARSE SAND CONTAINING NUMEROUS COBBLES OF VARIOUS LITHOLOGY ie GRANITIC INTERMEDIATE VOLCANIC, SANDSTONE, ♀ QUARTZ SILTY CLAY		
48-49	.			
49-60	.	COARSE SAND		
60-62	.	CLAY TO SILTY CLAY		
62-64.5	—	BOULDER GRANITIC TO 64 64-64.5 SANDY CLAY		
64.5-68	—	PYRITIC VOLCANIC TUMBLE		
68-74	—	SANDY CLAY ONLY 1 QUARTZ COBBLER INTERSECTED		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-23 Property: CARSTENZ

Location: \_\_\_\_\_

Total Depth: 113 feet

Sheet 2 of 2

DEPTH Feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
74 - 80	- : - : -	SANDY CLAY		
80 - 82	- - - - -	CLAY		
82 - 84	- : - : -	SANDY CLAY		
84 - 87	- - - - -	CLAY		
87 - 89	: - : - -	INTERMEDIATE VOLCANIC Boulders		
89 - 94	- : - : -	SANDY CLAY		
94 - 95.5	- : - : - : -	INTERMEDIATE VOLCANIC Boulders		
96 - 100	- : - : -	SANDY CLAY		
100 - 104	- : - : -	SAND		
104 - 113	- - - - -	Pyritic Clay & SAND ROOTS JAMMED IN THE CLAY @ 113 HAD TO ABANDON THE HOLE		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR 24

Property: CARSCALLEN

Location: LN 60 N 2° E

Total Depth: 114 ft

Sheet 1 of 2

<u>DEPTH feet</u>	<u>GRAPHIC LOG</u>	<u>DESCRIPTION</u>	<u>SAMPLE NO.</u>	<u>Depth</u>
0-14	.....	SANDY CLAY Poor Return		
14-24		No Return		
24-34	.. .. .. .. .. .. .. .. ..	VERY LITTLE RETURN MAINLY SILT & VERY FINE GRAINED SAND		
34-40		No Return		
40-42	.....	GRAY GRAY SAND		
42-43	.....	CORRSE QUARTZ BIOTITE SAND		
43-44	.....	SANDY CLAY		
44-52	.....	CORRSE GRAVEL		
52-54	.....	SANDY CLAY		
54-58	.....	SANDY SILTY CLAY		
58-59	.....	QUARTZ BIOTITE & GRANITE COBBLES		
59-70	.....	SILTY SANDY CLAY		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR 24

Property: CARSCALLEN

Location: W 60 N 2700 E

Total Depth: 114 feet

Total Depth: 114 feet  
Sheet 2 of 2

DEPTH Feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
70 - 71	— — —	CLAY		
110	— — —	SANDY CLAY THROUGH OUT EXCEPT FOR THE 74 - 84 FT INTERVAL WHERE 4 INTERMEDIATE VOLCANIC STONES << 1 FT DIAMETER WERE INTERSECTED		
— 117	— — —	GRAY STICKY CLAY BOUND ROCKS HAD TO ABDONNE HOLE		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-25Property: CARSCALLENLocation: LN 60 N @ 80Total Depth: 86 feetSheet 1 of 2

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-24		No Return		
24-25	.....	Very Fine Grained Sand		
25-26	.....	Lost Recovery		
26-27	.....	Fine Grained Sand & Silt		
27-44	.....	Sandy Silty Clay from 34-44 foot Numerous Granite & Basic Volcanic Cobble L. 0.5 ft intersected		
44-80 ft	.....	Sandy Clay 44-74 Cobbles of Granite Quartzite & Basic Volcanic Common from 64-74 ~1% Pyrite found in the Major Heelite Volcano.		
70 ft	→			

**C. VON HESSERT & ASSOCIATES LIMITED**

**CLIENT:** Hawk Resources

Drill Hole No.: HR-25

Property: CARSCALLEN

Location: W 60 N @ B.C.

Total Depth: 86 ft

Total Depth: 86 ft Sheet

Sheet 2 of 2

DEPTH Feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
44 - 80	- - - .			
80 - 82	- - - .			
82 - 83	- - - .	INTERMEDIATE VOLCANIC BOULDER SANDY CLAY		
83 - 86	X X X	PYRITIC QUARTZITE		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR 26

Property: CARSCALLEN

Location: LN 64N 1+50W

Total Depth: 122 feet

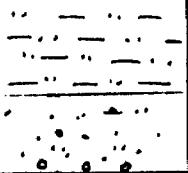
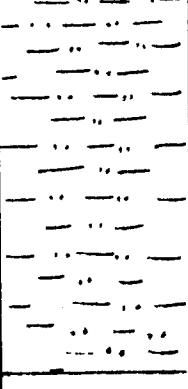
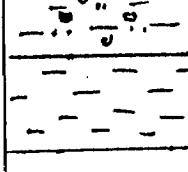
Sheet 1 of 2

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-14		NO RETURN		
14-24	.	FINE TO MEDIUM GRAINED SAND		
24-50	.	COARSE SAND		
50-54	— — — — — —	CLAYY SAND GRADING TO SANDY CLAY BY 52 ft.		
54-80	— — — — — —	SLTY CLAY NUMEROUS CORBLES 54-64 ft. BASALT & PYRITIC DIORITE Py ≤ 1% 64-74 ft Few CORBLES		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-26Property: CARSCALLENLocation: LN 64N 1+50WTotal Depth: 122 ft

Sheet 2 of 2

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
80-84		A Mix of SILT SAND & FINE GRAVEL		
84-104		SILTY CLAY WITH NUMEROUS COBBLES OF VARIED LITHOLOGY		
104-114		COARSE SAND w/ COARSE GRAVEL		
114-119		SILTY CLAY WITH FINE GRAVEL		
119-122		CLAY RODS STUCK HAD TO ABANDON HOLE		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR- 27 Property: CARSCALLENLocation: LN 64N 12E Total Depth: 55 ft Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-14	.	SAND & SILT WITH FINE GRAVEL		
14-24	.	FINE GRAVEL & COARSE SAND		
24-34	.	COARSE SAND CHANGING TO SANDY CLAY BTF 34 ft		
34-49	-	SANDY CLAY VERY FEW COBBLES / GRANITE BONDER INTERSECTED 45-46 ft		
49-50	-	CLAY		
50-54	-	SANDY CLAY <sup>COBBLES</sup> RUMMERS COMMON 52-54 ft USUALLY MARIC VOLCANIC & QUARTZ BIOTITE COMPOSITION		
54-55	X X X X X X X X	QUARTZITE COULD ONLY DRILL 1 FOOT INTO THIS WHEN BIT WORE OUT. ABANDONED HOLE		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-28

Property: CARSCALLON

Location: LN 76N 22R00W

Total Depth: 14

Sheet 1 of 1

DEPTH	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - 12		OVERBURDEN No Return		
12-14		Bed Rock ? No Return		

C. VON HESSERT & ASSOCIATES LIMITED

CLIENT: Hawk Resources

Drill Hole No.: HR-29

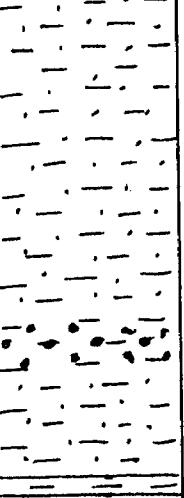
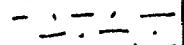
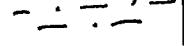
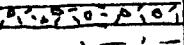
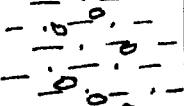
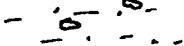
Property: CARSCALLI

Location: Lat 72N 17°00'W

Total Depth: 46 feet

Total Depth: 46 feet  
Sheet

Sheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0 - <del>27</del> 27		0-27 ft PRIMARILY SANDY CLAY ONE GRAVEL ZONE 20-22 ft		
27-28		CLAY		
28-33		SANDY CLAY		
33-34		GRANITE Boulders		
34-43		SANDY CLAY COBBLES COMMONLY INTERSECTED GENERALLY MAFIC TO INTERMEDIATE VOLCANIC COMPOSITION		
43-46		INTERMEDIATE TO MAFIC VOLCANIC		

## C. VON HESSERT &amp; ASSOCIATES LIMITED

CLIENT: Hawk ResourcesDrill Hole No.: HR-30Property: CARSCALLENLocation: LN 68N 15+00WTotal Depth: 36 feetSheet 1 of 1

DEPTH feet	GRAPHIC LOG	DESCRIPTION	SAMPLE NO.	Depth
0-10		No Return		
10-14	- - - - - / - - - - -	SANDY, SILTY CLAY		
14-26	- - - - - / - - - - -	SILTY CLAY		
26-32	- - - - - / - - - - -	SANDY CLAY WITH COARSE SAND LAYERS		
32-36	- - - - - / - - - - -	INTERMEDIATE TO BASIC VOLCANIC WITH CALLITE VENSLETS ( $\frac{1}{2}$ - $\frac{1}{4}$ INCH THICK) AND MINOR AMOUNTS OF PYRITE ( $\leq 1\%$ )		

**Wacker Drill Program Results**  
**Hawk Resources' Carscallen Twp. Property**

Sample Number	Sample Location	Type of Sample	Bed rock chip	Depth of Hole	Assay Value ppb. gold
2612	Ln 36N 6W	sand	none	7 ft.	Nil
2613	36N 7W	sand+silt	"	9.5 "	Nil
2614	36N 8W	silt+sand	none	4.5 "	Nil
2615	36N 9W	sand	Qtzite	4 "	Nil
2616	Ln 38N 10W	sand	M. volc.	8 "	Nil
2617	38N 9W	clay+sand	diabase	8 "	Nil/Nil
2618	38N 8W	sand	none	9.5 "	Nil
2619	38N 7W	sand	diorite?	12 "	Nil
2620	Ln 40N 7W	clay+sand	none	12 "	Nil
2621	40N 8W	sand+silt	grywcke	3 "	Nil
2622	40N 9W	clay+silt	M. volc.	8 "	Nil
2623	40N 990W	Loam	M. volc.	2 "	Nil
2624	Ln 42N 10W	Loam	diabase	1 "	Nil
2625	42N 11W	sand	quartz	1 "	Nil
2626	LN 44N 11W	sand+silt	F. volc.	6.5 "	Nil
2627	44N 12W	silt+loam	diabase	1 "	Nil
2628	44N 13W	silt+sand	M. volc.	2 "	Nil
2629	44N 14W	sand+silt	F. volc.	5 "	Nil/Nil
2630	44N 15W	sand+silt	granite	5 "	Nil
2631	44N 16W	clay+silt	quartz	2 "	Nil
2632	Ln 46N 12W	sand+silt	quartz	1 "	Nil
2633	46N 14W	sand+silt	none	1.5 "	Nil
2634	46N 15W	clay+silt	Int. volc.	1 "	Nil
2635	46N 16W	loam	Int. volc.	1.5 "	Nil
2636	Ln 48N 8W	clay+sand	Int. volc.	22 "	Nil
2637	48N 12W	sand+silt	F. volc.	5.5 "	Nil
2638	Ln 50N 13W	silt+sand	none	12 "	Nil
2639	Ln 54N 14W	sand	none	9 "	Nil
2640	Ln58N 1550W	clay+silt	none	24 "	Nil
2641	Ln 62N 17W	sand	none	4 "	Nil
2642	Ln 64N 18W	sand	none	8 "	Nil
2643	Ln66N 1850W	sand	none	1 "	Nil/Nil
2644	Ln 68N 19W	sand+clay	Int. volc.	7 "	Nil
2645	Ln72N 2050W	sand+moss	Int. volc.	12 "	Nil



42A05NE0317 2.9532 CARSACLEN

900

## Type of Survey(s)

HORIZONTAL LOOP EM AND OVERTURDEN DRILLING

## Claim Holder(s)

HAWK RESOURCES

## Address

805 - 475 Howe St VANCOUVER B.C. V6C 2B3

## Survey Company

C. VON HESSERT &amp; ASSOCIATES LIMITED

## Name and Address of Author (of Geo-Technical report)

RICHARD SPROUT &amp; C. VON HESSERT &amp; ASSOCIATES LTD 306 45 RICHMOND ST. W. TORONTO

## Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other MAX H.W.	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	
Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits	Electromagnetic	Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Magnetometer	
	Radiometric	

## Expenditures (excludes power stripping)

Type of Work Performed	Sect. 6 (1)(i)		
CLOTHURDEN DRILLING			
Performed on Claim(s)			
649943, 649944, 649945, 649947			
650497, 650522, 650523, 650525			
Calculation of Expenditure/ Days Credits			
Total Expenditures	Total Days Credits		
\$ 23,606.32	=	15	= 1579
Instructions:	Other expenditures may be apportioned at the claim holder's discretion number of days credits per claim selected Claims at right.		

Date NOV 12 1986 Recorded Holder or Agent (Signature)

NOV 12 1986 J.M. SPROUT

Certification Verifying Report of Work

I certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

## Name and Postal Address of Person Certifying

RICHARD M. SPROUT &amp; C. VON HESSERT &amp; ASSOCIATES LTD 306 45 Richmond St. W.

FAX 604 685 1200

1362 (ST 3)

For Office Use Only	
Total Days Cr.	Date Recorded
Recorded	1986.12.16
1400	Date Approved as Recorded
	Branch Director

Date Certified 1986.12.16 Certified by (Signature)

April 24, 1987

Your File: 348/86  
Our File: 2.9532

Mining Recorder  
Ministry of Northern Development and Mines  
60 Wilson Avenue  
Timmins, Ontario  
P4N 2S7

Dear Sir:

RE: Notice of Intent dated April 3, 1987  
Geophysical (Electromagnetic) Survey  
and Overburden Drilling on Mining  
Claims P 649943, et al, in Carscallen 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,

J.C. Smith, A/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

DK/mc

cc: Hawk Resources  
Suite 305  
475 Howe Street  
Vancouver, B.C.  
V6C 2B3

Resident Geologist  
Timmins, Ontario

C. von Hessert & Associates Ltd  
Suite 306  
45 Richmond Street West  
Toronto, Ontario  
M5H 1Z2  
Attention: Mr. Richard M. Sproule

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

Encl.



Ministry of  
Northern Development  
and Mines

Ontario

Technical Assessment  
Work Credits

File

2.9532

Date  
April 3, 1987

Mining Recorder's Report of  
Work No.  
348/86

Recorded Holder

HAWK RESOURCES

Township or Area

CARSCALLEN TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ days	\$23,686.32 SPENT ON ANALYSES OF SAMPLES TAKEN FROM MINING CLAIMS:
Magnetometer _____ days	P 649943 to 45 inclusive
Radiometric _____ days	649947
Induced polarization _____ days	650497
Other _____ days	650522-23
	650525
Section 77 (19) See "Mining Claims Assessed" column	
Geological _____ days	
Geochemical _____ days	1579 ASSESSMENT WORK DAYS ARE ALLOWED WHICH MAY BE GROUPED IN ACCORDANCE WITH SECTION 76(6) OF THE MINING ACT.
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input type="checkbox"/>	Ground <input type="checkbox"/>
<input type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey

insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.



Ministry of  
Northern Development  
and Mines

Technical Assessment  
Work Credits

File

2.9532

Date

April 3, 1987

Mining Recorder's Report of  
Work No.

348/86

Recorded Holder

HAWK RESOURCES

Township or Area

CARSCALLEN TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
<b>Geophysical</b>	
Electromagnetic _____ 15 days	P 649943 to 47 inclusive 650497 to 99 inclusive 650521 -22
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Other _____ days	
Section 77 (19) See "Mining Claims Assessed" column	
<b>Geological</b> _____ days	
<b>Geochemical</b> _____ days	
Man days <input type="checkbox"/>	Airborne <input type="checkbox"/>
Special provision <input checked="" type="checkbox"/>	Ground <input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims	
--	--

not sufficiently covered by the survey

insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

C. VON HESSERT & ASSOCIATES LTD.  
SUITE 306 - 45 RICHMOND STREET WEST  
TORONTO, ONTARIO M5H 1Z2

(416) 863-6796

March 23, 1987

Mr. Dennis Kinvig  
Ministry of Northern Development  
and Mines  
Mining Lands Section  
Room 6610  
Whitney Block  
Queen's Park  
Toronto, Ontario  
M7A 1W3

Dear Mr. Kinvig

Re: your file No. 2.9532

As you requested in your letter of February 20, 1987, find enclosed a sheet containing sample numbers, grid location, claim No., and depth of sample, for sample numbers 2573 to 2611 inclusive.

I trust that I have not overlooked any other particulars in the report. However, if I have please do not hesitate to contact me at the above address.

Sincerely,

Richard M. Sproule

**RECEIVED**

MAR 24 1987

**MINING LANDS SECTION**

Hawk Resources Carscallen Twp.  
Reverse Circulation  
Sample Locations

Sample #	Hole #	Location	Claim No.	Sample depth Ft.
2573	HR 1	74 N, 21 W	P. 649947	24 - 34
2574	HR 1	"	"	34 - 44
2575	HR 4	64 N, 18 W	649944	0 - 11
2576	HR 5	64 N, 11+75W	649944	24 - 34
2577	HR 5	"	"	34 - 42
2578	HR 6	60 N, 16+50W	649944	14 - 24
2579	HR 6	"	"	24 - 29
2580	HR 7	60 N, 18 W	649944	24 - 30
2581	HR 7	"	"	30 - 34
2582	HR 8	56 N, 15 W	649943	34 - 40
2583	HR 8	"	"	40 - 42
2584	HR 10	54 N, 16 W	649943	0 - 12
2585	HR 11	50 N, 13 W	649943	0 - 13
2586	HR 15	32 N, 7 W	650523	34 - 39
2587	HR 15	"	"	39 - 40
2588	HR 15A	30 N, 11+50W	650522	14 - 22
2589	HR 15A	"	"	22 - 24
2590	HR 16	32 N, 7 W	650523	0 - 14
2591	HR 16	"	"	14 - 24
2592	HR 17	32 N, 10+25W	650523	0 - 14
2593	HR 19	36 N, 6 W	650523	0 - 9
2594	HR 20	36 N, 8 W	650523	0 - 7
2595	HR 22	BL 0, 55 N	650525	34 - 44
2596	HR 22	"	"	44 - 46
2597	HR 23	56 N, 3 E	650525	94 - 104
2598	HR 23	"	"	104 - 110
2599	HR 24	60 N, 2 E	649945	94 - 104
2600	HR 24	"	"	104 - 114
2601	HR 25	BL 0, 60 N	649945	74 - 84
2602	HR 25	"	"	84 - 86
2603	HR 26	64 N, 1+50W	649945	104 - 114
2604	HR 26	"	"	114 - 122
2605	HR 27	64 N, 12 E	650497	44 - 54
2606	HR 27	"	"	54 - 55
2607	HR 28	76 N, 22 W	649947	0 - 14
2608	HR 29	72 N, 17 W	649947	34 - 44
2609	HR 29	"	"	44 - 46
2610	HR 30	68 N, 15 W	649944	24 - 34
2611	HR 30	"	649944	34 - 36



Ministry of  
Natural  
Resources

**Report of Work**  
(Geophysical, Geological,  
Geochemical and Expenditures)

The Mining Act

- Instructions: — Please type or print.  
— If number of mining claims traversed exceeds space on this form, attach a list.  
Note: — Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.  
— Do not use shaded areas below.

Type of Survey(s)

HORIZONTAL LOOP EM AND OVERBURDEN DRILLING

Claim Holder(s)

HAWK RESOURCES

Address

805 - 475 HOWE ST VANCOUVER B.C. V6C 2B3

Survey Company

C. von HESSERT & ASSOCIATES LIMITED

Name and Address of Author (of Geo-Technical report)

RICHARD SPROUSE % C. von HESSERT & ASSOCIATES LTD. 306 45 RICHMOND ST. W. TORONTO

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other MAX HIN	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed
CIRCBURNER DRILLING
Performed on Claim(s)
P 649943, 649944, 649945, 649947
650497, 650522, 650523, 650525

Calculation of Expenditure/Days Credits

Total Expenditures		Total Days Credits
\$ 23,686.32	÷ 15	= 1579

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)
Nov 6 / 86	J. M. Hawk

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying

RICHARD N. SPROUSE % C. von HESSERT & ASSOCIATES LTD. 306 - 45 RICHMOND ST. W.  
T. SPARKS C.A.T.

Township or Area

CARSCALLEN

Prospector's Licence No.

T 4674

Date of Survey (from & to)

9 6 86 Day

28 8 86 Day

Total Miles of line Cut

12

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	649943	60			
	649944	60			
	649945	60			
	649946	60			
	649947	60			
	650495	60			
	650496	60			
	650497	60			
	650498	60			
	650499	60			
	650500	60			
	650501	60			
	650502	60			
	650503	60			
	650504	60			
	650521	60			
	650522	60			
	650523	60			
	650524	60			
	650525	60			

NOTE: MAX HIN ONLY ON THE FOLLOWING CLAIMS

P 649943

649944

649945

649946

649947

650497

650498

650499

650501

650521

650522

Total number of mining claims covered by this report of work.

20

For Office Use Only	
Total Days Cr. Recorded	Date Recorded
	Mining Recorder
	Date Approved as Recorded
	Branch Director

Date Certified

Nov 6 / 86

Certified by (Signature)

J. M. Hawk

# REFERENCES

## AREAS WITHDRAWN FROM DISPOSITION

M.R.O. — MINING RIGHTS ONLY

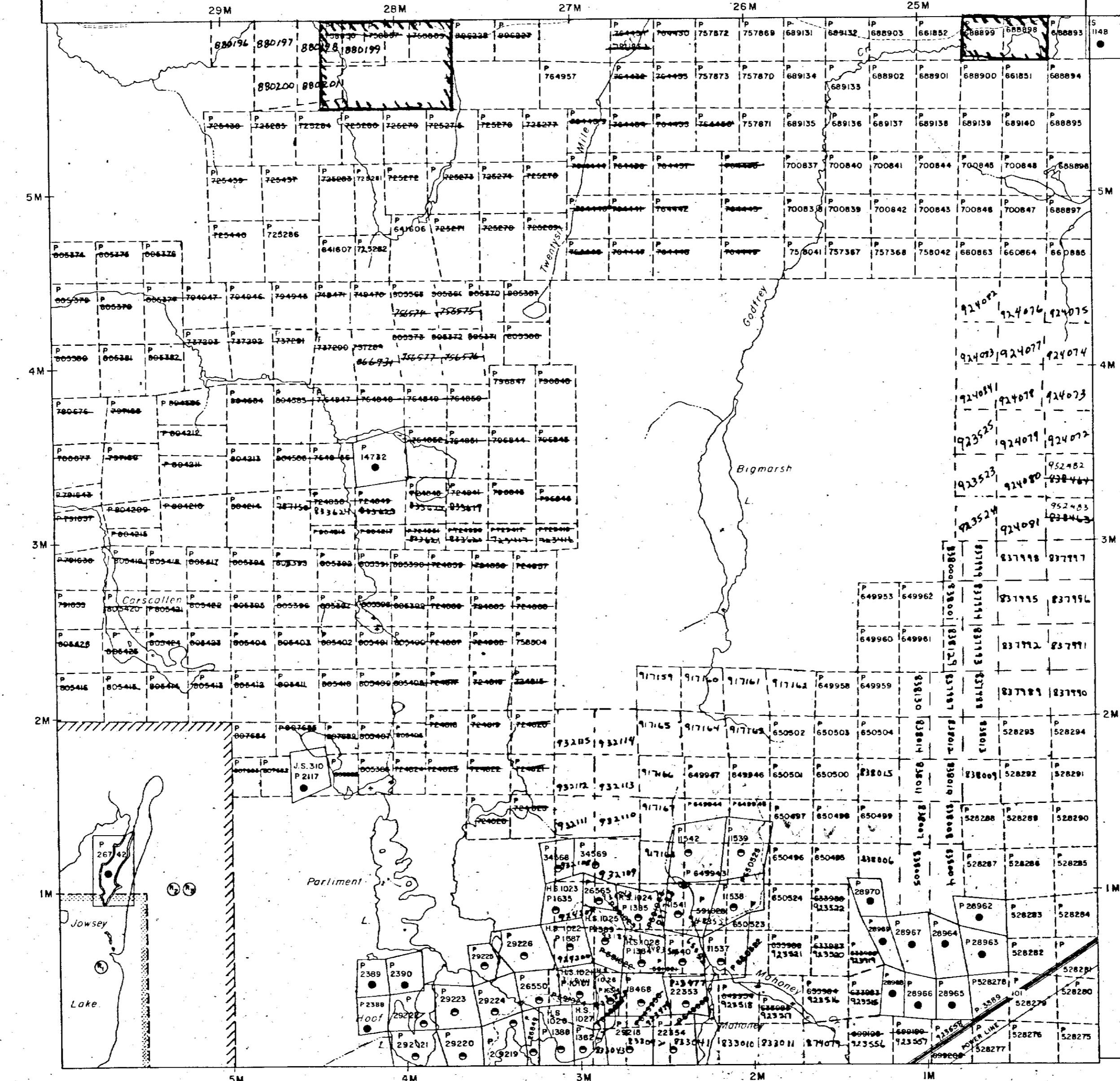
S.R.O. — SURFACE RIGHTS ONLY

M.+S. — MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
Sec 42 (R.8.0 '60)			M+S	171506
			S.R.O.	171506
Sec 36/80	W64/B3		M.R.O.	

# TURNBULL TWP.

WHITESIDES TWP.



DENTON TWP.

BRISTOL TWP.

# LEGEND

HIGHWAY AND ROUTE NO.



OTHER ROADS



TRAILS



SURVEYED LINES:



TOWNSHIPS, BASE LINES, ETC.



LOTS, MINING CLAIMS, PARCELS, ETC.



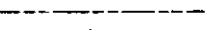
UNSURVEYED LINES:



LOT LINES



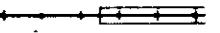
PARCEL BOUNDARY



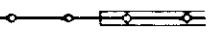
MINING CLAIMS ETC.



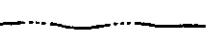
RAILWAY AND RIGHT OF WAY



UTILITY LINES



NON-PERENNIAL STREAM



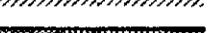
FLOODING OR FLOODING RIGHTS



SUBDIVISION OR COMPOSITE PLAN



RESERVATIONS



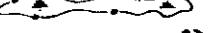
ORIGINAL SHORELINE



MARSH OR MUSKEG



MINES



TRAVERSE MONUMENT



## DISPOSITION OF CROWN LANDS

### TYPE OF DOCUMENT

### SYMBOL

PATENT, SURFACE & MINING RIGHTS



" , SURFACE RIGHTS ONLY



" , MINING RIGHTS ONLY



LEASE, SURFACE & MINING RIGHTS



" , SURFACE RIGHTS ONLY



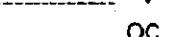
" , MINING RIGHTS ONLY



LICENCE OF OCCUPATION



ORDER-IN-COUNCIL



RESERVATION



CANCELLED



SAND & GRAVEL



NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 38D, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000

METRES 0 200 1000 2000 [2 KM]

POPCUPINE MINING DIVISION  
SUPERINTENDENT MNR  
FEB 27 1987

TOWNSHIP

CARSCALLEN

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

COCHRANE

Ministry of Natural Resources Ontario Land Management Branch

Date SEPTEMBER, 1984 Number

Checked Oct. 3/84 G-3040

Filed





