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OP90-504

R.J. GRAHAM

PROSPECTING FOR GOLD IN THE HURONIAN

SCADDING TOWNSHIP

SUDBURY MINING DIVISION

ONTARIO

NOVEMBER 7 1990

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SUMMARY

55 days of prospecting during the period July 22 - October 30 1990 in west-central Scadding Township located four gold showings.

Work included traditional traversing, grubbing stripping, trenching by blasting, and probing through shallow overburden using a recently invented electronic device "Gold spear". A gold pan was routinely used to test areas of interest. Of 15 assays by Temiskaming Testing Labs, 7 returned interesting results, from 0.19 to 0.46 O.P.T. gold in quartz veins and diatreme breccias in Huronian sediments and Nipissing diabase. The site of an ancient gold mill was rediscovered and its source of feed was identified. A new theory was proposed to define favourable areas in the Huronian, and plans to use self potential (short-wire) surveying in Phase II were made. 5 claims were staked at a later date.

INTRODUCTION.

OGS REPORT 213 1982,
B.O. DRESSLER,
PAGE 118.

SUGGESTIONS FOR FURTHER EXPLORATION

"Further detailed studies on the contact zones of the Nipissing gabbro with rocks of the Huronian Supergroup should be carried out to investigate the possibility of gold and gold-copper-quartz carbonate vein mineralization"

Intrigued by the highly favourable geology, numerous gold showings, large areas of unstaked land together with an idle 200 ton per day gold mill (Otafio Resources Ltd.) the undersigned picked Scadding Township as his 1990 O.P.A.P. project location.

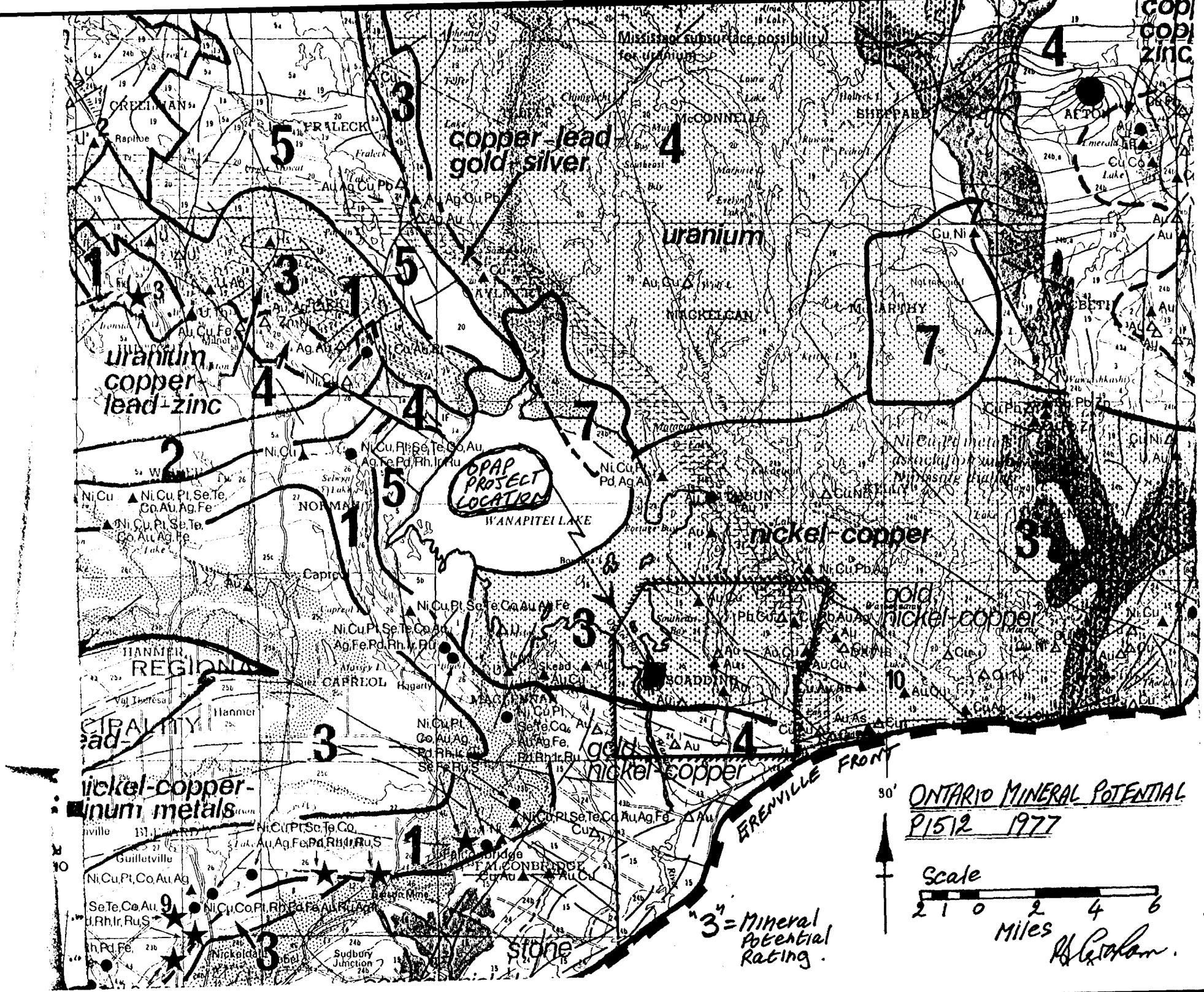
The plan to carry out Phase I of this work by simple prospecting was based on 35 years of successful gold exploration by the undersigned who strongly believes in the basic field methods used by "old time" prospectors.

LOCATION AND ACCESS TO PROJECT AREA

The project area was in west-central Scadding township. (See location map attached).

Access was via Highway 17 West from North Bay to the village of Awrey, (some 25 miles east of Sudbury) where the Kukagami gravel road branches north past the tracks and the Orofino Gold Mine and Mill to a smaller bush road running west to the Hydro Dam at the south end of Lake Wanapitei.

This road has recently been improved to facilitate extensive repairs presently being carried out on the Dam.

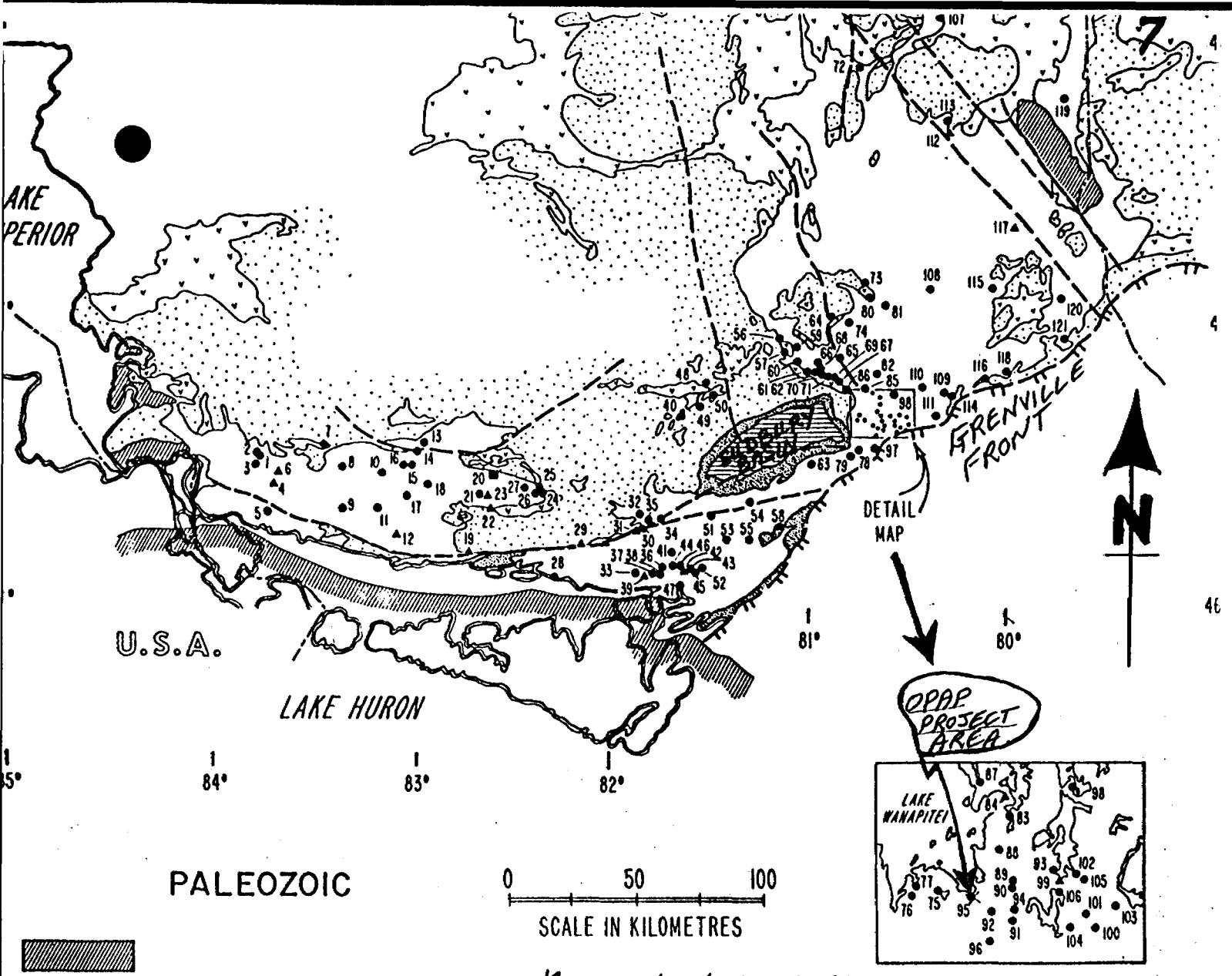

Mississagi subsurface possibility for uranium
copper-lead gold-silver
uranium
uranium copper-lead-zinc
nickel-copper
gold nickel-copper
nickel-copper-platinum metals
gold nickel-copper
stone
GRENVILLE FRONT
GPAP PROJECT LOCATION
WANAPITEI LAKE
McCONNELL
FRALECK
CRELLMAN
NORMAN
CAPREOL
HANMER
REGIONAL
MACKELCAN
McCARTHY
SCADDING
AFTON
DUBUN
FALCONBRIDGE
Sudbury Junction
Nickeldale
Guilletville
Ni,Cu,Pt,Co,Au,Ag
Ni,Cu,Pt,Se,Te,Co,Au,Ag,Fe
Ni,Cu,Pt,Se,Te,Co,Au,Ag,Fe,Pd,Rh,Ir,Ru
Ni,Cu,Pt,Se,Te,Co,Au,Ag,Fe,Pd,Rh,Ir,Ru,S
Ni,Cu,Co,Pt,Rh,Pd,Fe,Au,Ru,Ag
"3" = Mineral Potential Rating.
ONTARIO MINERAL POTENTIAL
P1512 1977
Scale
2 1 0 2 4 6
Miles

REGIONAL GEOLOGY AND EXPLORATION POTENTIAL

The region is underlain by an easterly trending belt of Huronian sediments derived from the weathering and breakdown of Keewatin series volcanics and other mineralized rocks. These sediments have been intruded by Nipissing diabase. To the west, immediately around the Sudbury complex, the diabase is steep and dykelike. In Scadding township the diabase occurs as undulating sills, often with granophyric phases. The regional geology is dominated by the meteor crater of Lake Wanapitei, surrounded by evidence of impact fractures. The area is also rife with diatreme breccias which concentrated minerals already present in the Huronian as base and/or precious metal paleoplacers. These diatremes are accompanied by intense bright orange soda metasomatism which provides a useful visual prospecting target.

These diatremes are usually cemented by a network of mineralized vuggy quartz, occasionally with significant gold values, but without any silver. Production by Northgate on the Groundstar property in Davis township (adjacent to the east side of Scadding) amounted to 10,600 oz gold and 990,000 lbs of copper from 63,000 tons and there was negligable silver. The same was true at the Northgate (Corfis) Scadding Gold Mine, which milled 108,700 tons for 15,300 oz gold, strengthening the writers' belief that the gold has a paleoplacer source. Mossman and Harron in 1983 tabulated gold occurrences in the Hurnian (including Scadding township) and their map and tabulation are included here for the record.

The number of gold showings in Scadding township, despite the scarcity of outcrops generates optimism that economic gold deposits remain to be discovered.



PALEOZOIC

0 50 100

SCALE IN KILOMETRES

MOSSMAN & HARRON 1983
"ORIGIN & DISTRIBUTION OF GOLD IN THE HURONIAN SUPERGROUP"

APHEBIAN

FELSIC AND MAFIC INTRUSIVES

WHITEWATER GROUP METASEDIMENTS

HURONIAN SUPERGROUP METASEDIMENTS, NIPISSING DIABASE

ARCHEAN

FELSIC PLUTONS AND MIGMATITES

METAVOLCANIC ROCKS

MAJOR FAULTS

GRENVILLE FRONT

POLITICAL BOUNDARIES

MINERAL OCCURRENCES Au OR Au + U

- PROSPECT
- PAST PRODUCER
- ACTIVE MINE

1. Location of Au, Au–U occurrences in the Huronian Supergroup (for details see Table IV) (base map modified after Gordon, 1977).

TABLE IV

List of 121 Au, Au–U occurrences investigated in the Huronian Supergroup. (Cat.) Categories of deposits: P = prospect (•, Fig. 1); PP = past producer (▲, Fig. 1); MP = active mine (■, Fig. 1). (V) vein; (DR) diabase related; (S) stratiform. The most recent available data were used in the present study and every effort made to use the correct information (tons (t) = 2000 lb)

No.	Name	Township	Cat.	Host rock formation	Morphology			Mineral assemblage[c]	Assays, Reports	Reference
					V[a]	DR[b]	S			
1	Hugli L.	McMahon	P	Gowganda	x	x		cpy–py–hem	0.01% Cu, 0.4 oz/t Ag, Tr Au	Chandler, 1973, p. 53
2	Stuart L.	McMahon	P	Gowganda	x			cpy–py–hem	0.21% Cu, 0.02 oz/t Ag, Tr Au	Chandler, 1973, p. 59
3	Kirk	Aberdeen	P	Diabase	x	x		py	no record	Ferguson et al., 1971, p. 18
4	Red Rock	Aberdeen	PP	Gowganda	x	x		py–cpy	0.11–0.51% Cu, Tr Au, Tr Ag/5–45'	Shklanka, 1969, p.14
5	McGregor Rd	Plummer Add	P	Lorrain	x	x		py–hem	0.02 oz/t Au, 0.03% U_3O_8, 0.04% ThO_2	Bennett and Leahy, 1979, p. 99
6	Havilah	Galbraith	PP	Mississagi	x	x		cpy–py	0.16 oz/t Au, 0.03 oz/t Ag in 6600 t	Ferguson et al., 1971, pp. 18–19
7	Burden L	Otter	P	Diabase	x	x		Co–Ag–Bi–Ni sulphides	1.22 oz/t Au/4'	Giblin and Leahy 1979, p. 94
8	Rothsay	Gould	P	Gowganda	x	x		cpy–py–hem	0.62% Cu, 0.01 oz/t Au	Siemiatkowska, 1977, p. 49
9	Lot 1, con III	Wells	P	Gowganda	x	x		cpy–py	0.02 oz/t Au	Shklanka, 1969, p.105
10	Ridgefield	Nouvel	P	Gowganda	x			cpy–py	0.05% Cu, 0.02 oz/t Au/2'	Shklanka, 1969, p.98
11	Corbold L	Montgomery	P	Bruce			x	cpy	0.24% Cu, 0.05 oz/t Au	Shklanka, 1969, p.102
12	Brady	Patton	PP	Gowganda	x	x		cpy–py	3.6–4.9% Cu, 0.08–0.22 oz/t Au	Robertson, 1963; p.61
13	Stanford	Albanel	P	Lorrain	x	x		cpy–py	15.6% Cu, 0.24% Zn, 0.36 oz/t Ag, 0.02 oz/t Au	Siemiatkowska, 1978, p.69
14	Ventures	Albanel	P	Diabase	x	x		Cu–Pb–Zn–Co–Bi sulphides	1.56% Cu, 0.63% Pb, 0.26% Zn, 0.1% Co, 0.05% Bi, 3.46 oz/t Ag, 0.1 oz/t Au	Siemiatkowska, 1978
15	Copper Prince	Kamichisitit	P	Gowganda	x			cpy–py	4.1% Cu, 0.03 oz/t Au/7.1'	Siemiatkowska, 1978, pp. 66–67
16	Pathfinder	Kamichisitit	P	Gowganda	x			cpy–py	4.1% Cu, 0.01 oz/t Au/3'	Shklanka, 1969, p.95
17	Matinenda L	Juliette	P	Matinenda	x			cpy–py	1.85% Cu, 0.012 oz/t Au	Shklanka, 1969, p.111
18	Picton U	Jogues	P	Mississagi			x	cpy–py–po	1.2% Cu, 0.002 oz/t Au	Robertson, 1963b, pp. 72–73
19	Pronto	Long	PP	Matinenda			x	py–po–RA	0.12% U_3O_8, Tr Au	Robertson, 1970, p.85
20	Denison	Bouck	MP	Matinenda			x	py–RA	0.08–1.73% U_3O_8, 0.07–0.3% ThO_2, 0.005–0.032 oz/t Au	Roscoe, 1969, Appendix C
21	Silvermaque	Gunterman	P	Bruce and Mississagi			x	py–RA	0.01 oz/t Au	Robertson, 1968a, p.136
22	Nordic	Gunterman	PP	Matinenda			x	py–RA	0.01 oz/t Au, 0.06 oz/t Ag	Robertson, 1968a, p.101
23	Stanleigh	Gunterman	PP	Matinenda			x	py–RA	0.043–0.63% U_3O_8, 0.007–0.18% ThO_2, 0.005–0.03 oz/t Au	Roscoe, 1969, Appendix C
24	Payton	Galashk	P	Mississagi	x			py–aspy–cpy	0.74 oz/t Au/2 1/2'	Robertson, 1962, pp. 76–77
25	B.C. Exploration No. 2	Galashk	P	Matinenda			x	py–RA	0.006% U_3O_8, 0.02 oz/t Au/1'	Robertson, 1962, pp. 70–71
26	Whitefish	Galashk	P	Mississagi	x	x		py–cpy	2.0% Cu, 0.16 oz/t Au	Robertson, 1962, pp. 88–89
27	McCool L	Galashk	P	Serpent	x	x		cpy–py	1.5% Cu, 0.02–0.04 oz/t Au+Ag	Robertson, 1962, pp. 85–86
28	Frechette Is.	(L.Huron)	P	Diabase	x	x		cpy–po–py	0.94% Cu, 0.145 oz/t Au/1.9'	Robertson, 1976, p.104
29	Massey	Salter	PP	Pecors	x	x		cpy–py	2.5% Cu, 0.5 oz/t Ag, 0.02 oz/t Au in 20 000 t	Robertson, 1976, pp. 111–116
30	White	Shakespeare	P	Matinenda	x	x		po–cpy	0.06% Cu, 0.06% Ni, 0.29 oz/t Ag, 0.01 oz/t Au	Shklanka, 1969, p.282
31	Shakespeare	Shakespeare	PP	Matinenda	x			cpy–po–aspy	1.12–1.85 oz/t Au/3-5 9000 t mined	Card and Palonen 1976, pp. 39–40
32	Noranda	Shakespeare	P	Matinenda	x			po–py–cpy–gal	1.55–8.45% Cu, Tr–0.02 oz/t Au	Card and Palonen 1976, p.41
33	Tough	McKinnon	P	Serpent	x			py–cpy–aspy	0.17 oz/t Au/8.5'	Gordon et al., 1979, p.73
34	Cons. Moncleg	Baldwin	P	Mississagi			x	py–RA	0.008% U_3O_8, 1.01% Cu, 0.01 oz/t Au	Robertson, 1968t p.67

TABLE IV (*continued*)

No.	Name	Township	Cat.	Host rock formation	Morphology V[a]	Morphology DR[b]	Morphology S	Mineral assemblage[c]	Assays, Reports	Referen
35	S[illegible]ger	Baldwin	P	Mississagi	x	x		cpy—py—po	0.93% Cu, 0.08 oz/t Au	Shklanka, 1969, p.231
36	Fox L	Mongowin	P	Serpent + Gowganda	x			py—cpy—aspy	1.91% Cu, 0.94 oz/t Ag, 0.83 oz/t Au	Ferguson et al., 1971, p.76
37	Majestic	Mongowin	P	Gowganda	x	x		py—cpy—aspy	no records	Card, 1976a, pp. 56—57
38	Jo-Ami	Mongowin	P	Gowganda	x			py—aspy	0.52—14.1 oz/t Au/1—3'	Card, 1976a, p.57
39	McMillan	Mongowin	PP	Gowganda	x			py—po—cpy—aspy	0.18 oz/t Au in 60 140 t	Card, 1976a, pp. 54—55
40	Lot 7, Con V	Hart	P	Espanola	x	x		gal—sph—py—cpy	7.32% Ni, 16.9% Co, 3.3% Bi, 0.03% Cu, 0.06 oz/t Au	Sergiades, 1968, p.55
41	Stratton L	Foster	P	Serpent	x			py—po—aspy	0.04 oz/t Au	Card, 1976a, p.58
42	Bosquet	Curtin	PP	Gowganda	x	x		py—cpy—aspy	0.27 oz/t Au in 17 400 t	Card, 1976a, pp. 51—52
43	Bridger	Curtin	P	Gowganda	x			py—aspy	0.07 oz/t Au	Card, 1976a, pp. 52—53
44	Pond	Curtin	P	Gowganda	x			py—aspy	0.19 oz/t Au/18'	Card, 1976a, p.53
45	Howry Crk.	Curtin	P	Gowganda	x	x		py—aspy	0.08—0.51 oz/t Au/1 1/2'	Card, 1976a, p.55
46	Upsala	Curtin	P	Gowganda	x			py—cpy—gal	0.4% Cu, 0.11 oz/t Au	Card, 1976a, p.57
47	Iroquois Is.	I.R. 4	P	Espanola	x			po—py—cpy—aspy	0.01—0.07 oz/t Au/4'	Card, 1976b, p.51
48	B and M Exploration	Munster	P	Gowganda	x	x		py	0.14% Zn, 0.01% Pb, 0.01% Cu, 0.002 oz/t Ag, 0.002 oz/t Au	Card and Innes, 1981, pp. 104—10
49	Hess L.	Hess	P	Espanola			x	mag—cpy—gal	0.5% Pb, 0.12% Cu, 0.18 oz/t Ag, 0.002 oz/t Au	Card and Innes, 1981, pp. 103—104
50	Central Hess	Hess	P	Espanola	x			sph—gal—py—cpy	10.6% Zn, 4.95% Pb, 0.97% Cu, 1.6 oz/t Ag, 0.002 oz/t Au/15'	Card and Innes, 1981, pp. 97—98
51	Turpeinen	Lorne	P	Mississagi	x			cpy—py	3.48% Cu, 0.02 oz/t Au	Ginn, 1965, p.38
52	Harwood L.	Roosevelt	P	Gowganda	x			py—aspy	0.88 oz/t Au/28"	Gordon et al., 1979, p. 81
53	Chellew	Dieppe	P	Espanola	x			py—cpy	0.5% Cu, 0.001 oz/t Au/40'	Card et al., 1975, p.56
54	Simpson	Graham	P	McKim	x			py	0.35 oz/t Au	Gordon et al., 1979, p.101
55	L. Panache	I.R.6	P	Mississagi	x			py—po—cpy—aspy	no records	Card et al., 1975, p.59
56	Roberts L.	Roberts	P	Mississagi			x	py—RA	0.19% U_3O_8, 0.02 oz/t Au	Meyn and Matthews, 1980, p.196
57	Nordic	Roberts	P	Mississagi			x	py—RA	0.11% U_3O_8, 0.02 oz/t Au	Meyn and Matthews, 1980, p.196
58	Long Lake	Eden	PP	Mississagi	x			py—po—aspy—cpy	0.26 oz/t Au in 221 000 t	Gordon et al., 1979, pp. 61—62
59	Leslie	Creelman	P	Mississagi			x	py—RA	0.05% U_3O_8, 0.003 oz/t Au	Meyn and Matthews, 1980, p.196; Meyn, 1971
60	North Hutton	Hutton	P	Mississagi			x	py—RA	0.44% U_3O_8, 0.003 oz/t Au	Meyn and Matthews, 1980, p.196
61	Central Hutton	Hutton	P	Mississagi			x	py—RA	0.17% U_3O_8, 0.01 oz/t Au	Meyn and Matthews, 1980, p.196
62	Banagan L.	Hutton	P	Mississagi			x	py—RA	0.19% U_3O_8, 0.003 oz/t Au	Meyn and Matthews, 1980, p.196
63	La Salle	McKim	P	McKim	x	x		py	0.77% Cu, 0.13% Ni, 0.18 oz/t Ag, 0.001 oz/t Au	Innes, 1978
64	C.J.M.	Grigg	P	Mississagi			x	py—RA	0.009% U_3U_8, 0.01 oz/t Au	Meyn, 1972, p.11
65	Towers	Fraleck	P	Diabase	x	x		gal—cpy—py—aspy	12.9% Pb, 1.5% Cu, 1.49 oz/t Ag, 0.91 oz/t Au	Dressler, 1979b, p.43
66	Flesher L.	Parkin	P	Mississagi			x	py—RA	0.004% U_3O_8, 0.002 oz/t Au	Meyn and Matthews, 1980, p.196
67	Mataris	Parkin	P	Bruce	x			py—aspy	no records	Gordon et al., 1979, p.113
68	Powerline Rd.	Parkin	P	Serpent			x	py—RA	0.015% U_3O_8, 0.001 oz/t Au	Meyn and Matthews, 1980, p.196
69	Parkin	Parkin	P	Bruce	x			py—gal	0.34 oz/t Au/5'	Gordon et al., 1979, p.114
70	Bouma	Parkin	P	Mississagi			x	py—RA	0.002% U_3O_8, 0.0003 oz/t Au	Meyn and Matthews, 1980, p.196

TABLE IV (*continued*)

No.	Name	Township	Cat.	Host rock formation	Morphology V[a]	Morphology DR[b]	Morphology S	Mineral assemblage[c]	Assays, Reports	Reference
71	Aro	Parkin	P	Mississagi	x			po	6.21 oz/t Ag, 0.08 oz/t Au	Meyn, 1970, pp. 51—52
72	British-Matachewan	Powell	P	Gowganda	x			py	0.09 oz/t Au	Gordon et al., 1979, p.163
73	Solace L.	Selkirk	P	Gowganda	x			gal—py—cpy	10.2% Pb, 4.08 oz/t Ag, 0.06 oz/t Au	Card et al., 1973, p.99
74	C.J.M.	Stobie	P	Mississagi			x	py—RA	0.021—0.08% U_3O_8, 0.005 oz/t Au	Meyn, 1972, p.32
75	Bonanza	Maclennan	P	Mississagi	x	x		py	0.04 oz/t Au	Thomson, 1961, p.28
76	Skead	Maclennan	P	Mississagi	x			py—cpy	0.62% Cu, 0.27 oz/t Au/6.1'	Thomson, 1961, p.27
77	Sheppard	Maclennan	P	Mississagi	x			py	0.23 oz/t Ag, 5.43 oz/t Au	Gordon et al., 1979, pp. 108—10
78	Falcon	Falconbridge	P	Serpent	x			py	0.32 oz/t Au in 18 000 t reserve	Phemister, 1939, p.20
79	Copper Prince	Falconbridge	P	Mississagi	x			py—cpy	no records	Shklanka,1969, p.275
80	W R 90	Turner	P	Gowganda	x	x		gal—sph—cpy	4.2% Pb, 0.24% Zn, 1.1% Cu, 0,22 oz/t Au	Card et al., 1973, pp. 93—94
81	T. Saville	Turner	P	Mississagi			x	py—RA	0.06% U_3O_8, 0.01 oz/t Au	Card et al., 1973, p.113
82	Wolfe L.	Mackelcan	P	Lorrain	x			py	0.002—2.25 oz/t Au	Dressler, 1978b, 1979a,
83	Comstock	Rathburn	P	Gowganda	x			py	3.5—12.9 oz/t Au	Gordon et al., 1979, p.80
84	Crystal	Rathburn	PP	Gowganda	x	x		py—cpy	0.53 oz/t Au in 730 t	Gordon et al., 1979, pp. 80—81
85	McVittie	Rathburn	P	Diabase	x	x		py—cpy	0.01—0.42 oz/t Au/3—10'	Dressler, 1978a
86	Bennett	Rathburn	P	Gowganda	x			py	no records	Dressler, 1978a
87	Rathburn L.	Rathburn	P	Diabase	x	x		py—po—cpy	14.3% Cu, 2.86% Ni, 0.61% Pt, 0.83% Pd, 0.28 oz/t Ag, 0.16 oz/t Au	Shklanka, 1969, p.261
88	Alwyn Porcupine	Scadding	P	Gowganda	x	x		py—cpy	1.11% Cu, 0.085 oz/t Au/6 1/2'	Thomson, 1961, p.28
89	Mid Continental	Scadding	P	Diabase	x	x		py	0.14 oz/t Au/15'	Kindle, 1933, p.4
90	Red Rock	Scadding	P	Gowganda	x	x		py—aspy	no records	Thomson, 1961, p.29
91	Northgate	Scadding	P	Serpent	x			py—po—cpy—aspy	0.26 oz/t Au in 260 750 t reserve	Martins et al., 1980, pp. 111—11
92	Alkins	Scadding	P	Gowganda	x	x		py	no records	Kindle, 1933, p.44
93	Midas	Scadding	P	Gowganda	x	x		gal—cpy—py	0.02—0.07% Cu, 0.04—0.36 oz/t Ag, 0.0—0.66 oz/t Au	Dressler, 1979b, p.112
94	Wanapitei	Scadding	P	Serpent	x			py	0.37 oz/t in 42 000 t reserve	Gordon et al., 1979, p.82
95	Potvin	Scadding	P	Espanola	x	x		py	0.09 oz/t Au	Gordon et al., 1979, p.117
96	Scadding	Scadding	P	Bruce	x			py	no records	Gordon et al., 1979, p.118
97	McVittie	Street	P	Mississagi	x			py—cpy	1.12% Cu, 0.01 oz/t Au	Shklanka, 1969, p.282
98	Kukagami L.	Kelly	P	Gowganda	x	x		py—cpy—gal	0.73% Cu, 5.18% Pb, 1.0 oz/t Ag, 0.09 oz/t Au	Shklanka, 1969, pp. 251—252
99	Mac-Auer	Davis	PP	Gowganda	x			py—cpy	0.87 oz/t Au in 7 700 t reserve	Gordon et al., 1979, p.58
100	McLeod	Davis	P	Gowganda	x	x		py—aspy	0.50 oz/t Au/4 1/2'	Thomson and Card, 1963, p.16
101	Norstar	Davis	P	Gowganda	x			py—cpy—aspy	1.5% Cu, 0.41 oz/t Au in 275 000 t reserve	Thomson and Card, 1963, pp. 16—16
102	Taylor	Davis	P	Gowganda	x	x		py	no records	Gordon et al., 1979, p.59
103	Washagami	Davis	P	Gowganda	x	x		py—cpy	10% Cu, 0.04 oz/t Au	Gordon et al., 1979, p.98
104	Crerar	Davis	P	Gowganda	x			py—cpy	4.09% Cu, 0.09 oz/t Au	Gordon et al., 1979, p. 97
105	Tecumseh	Davis	P	Gowganda	x	x		py—cpy	Au over 20"	Thomson and Card, 1963, p.18
106	Handy	Davis	P	Gowganda	x			py	no records	Thomson and Card, 1963, p.17
107	Tomlinson	Bompass	P	Gowganda	x			py—cpy—gal	no records	Gordon et al., 1979, p.192
108	Delhi-Pacific	Delhi	P	Gowganda	x	x		gal—py—cpy	7.13% Pb, 5.58 oz/t Ag, 0.25 oz/t Au in 54 000 t reserve	Gordon et al., 1979, pp. 59—60

109	T. Saville	McNish	P	Mississagi			x	py	no records	Dressler, 1979b, pp. 81—82
110	A[redacted]erome	McNish	P	Gowganda	x	x		py—po—cpy—sph—gal	2.98% Cu, 0.53% Zn, 1.88 oz/t Ag, 0.02 oz/t Au	Dressler, 1979b, p.76
111	P.C.E.	Janes	P	Diabase	x	x		cpy—po	0.77% Cu, 0.28% Ni, 0.035 oz/t Au/15′	Shklanka, 1969, p.251
112	Paramount	Tudhope	PP	Diabase	x	x		cpy—py	Cu, Ag, Au in 43 t	Shklanka, 1969, p.373
113	Sauve	Tudhope	P	Gowganda	x	x		cpy—hem	1.56% U_3O_8 with Cu, Au	Shklanka, 1969, p.373
114	Pickle Crow	Pardo	P	Mississagi			x	py	0.028% U_3O_8, 0.05 oz/t Au	Gordon et al., 1979, p.24
115	Hardie	Cynthia	P	Gowganda	x	x		py—cpy—po	2.16% Cu, 0.14 oz/t Ag, 0.14 oz/t Au	Simony, 1964, p.23
116	Wright	Vogt	P	Mississagi			x	py—RA	0.052% U_3O_8, 0.40 oz/t Au/2′	Grant, 1964, pp. 20—21
117	Cobalt-Kittson	Kittson	PP	Gowganda	x	x		Co—Ni—Fe arsenides	0.08 and 0.20 oz/t Au	Johns, 1979, p.114
118	Cross Lake	Torrington	P	Gowganda	x			py—cpy—gal	5.03% Cu, 2.30% Pb, 3.26 oz/t Ag, 0.03 oz/t Au	Grant, 1964, p.21
119	Marshall	Ingram	P	Gowgand[redacted]	x	x		cpy—py—gal	0.36% Cu, 0.24% Pb, 0.41% Co, 1.72 oz/t Ag, 0.98 oz/t Au	Gordon et al., 1979, p.140
120	E D 61	Cassels	P	Diabase	x	x		py—aspy	1.08 oz/t Au/4″	Gordon et al., 1979, p.27
121	Rabbit L.	Askin	P	Gowganda	x			Co—Ni sulphides	0.44 oz/t Au	Gordon et al., 1979, p.27

[a]Vein, refers to quartz or quartz and carbonate veins.
[b]Diabase related refers to mineralization in or adjacent to diabase dykes.
[c]Abbreviations py = pyrite; po=pyrrhotite; cpy=chalcopyrite; gal=galena; sph=sphalerite; hem=hematite; mag=magnetite; RA=radioactive minerals.

GEOLOGY OF THE PROJECT AREA

Detailed interpretation of the geology is difficult as most of the bedrock is masked by the extensive but generally shallow overburden.

O.G.S. Geology Terrain Data Base Map 5001 (Capreol) shows the project area to be covered by peat and muck overlying a sandy outwash plain resulting from torrential glacial melt-water pouring from the east into Lake Wanipitei.

Outcrops occur on narrow north-trending ridges with local relief to 30 feet and comprise Bruce Conglomerate and greywacke, Espanola Formation calcareous mudstones and greywacke intruded by irregular sheets of non-magnetic Nipissing diabase.

The O.G.S. G.D.I.F. Geological Data Inventory Folio 317, Map 2 shows a strong linear aeromagnetic high anomaly striking southeast through the north part of the

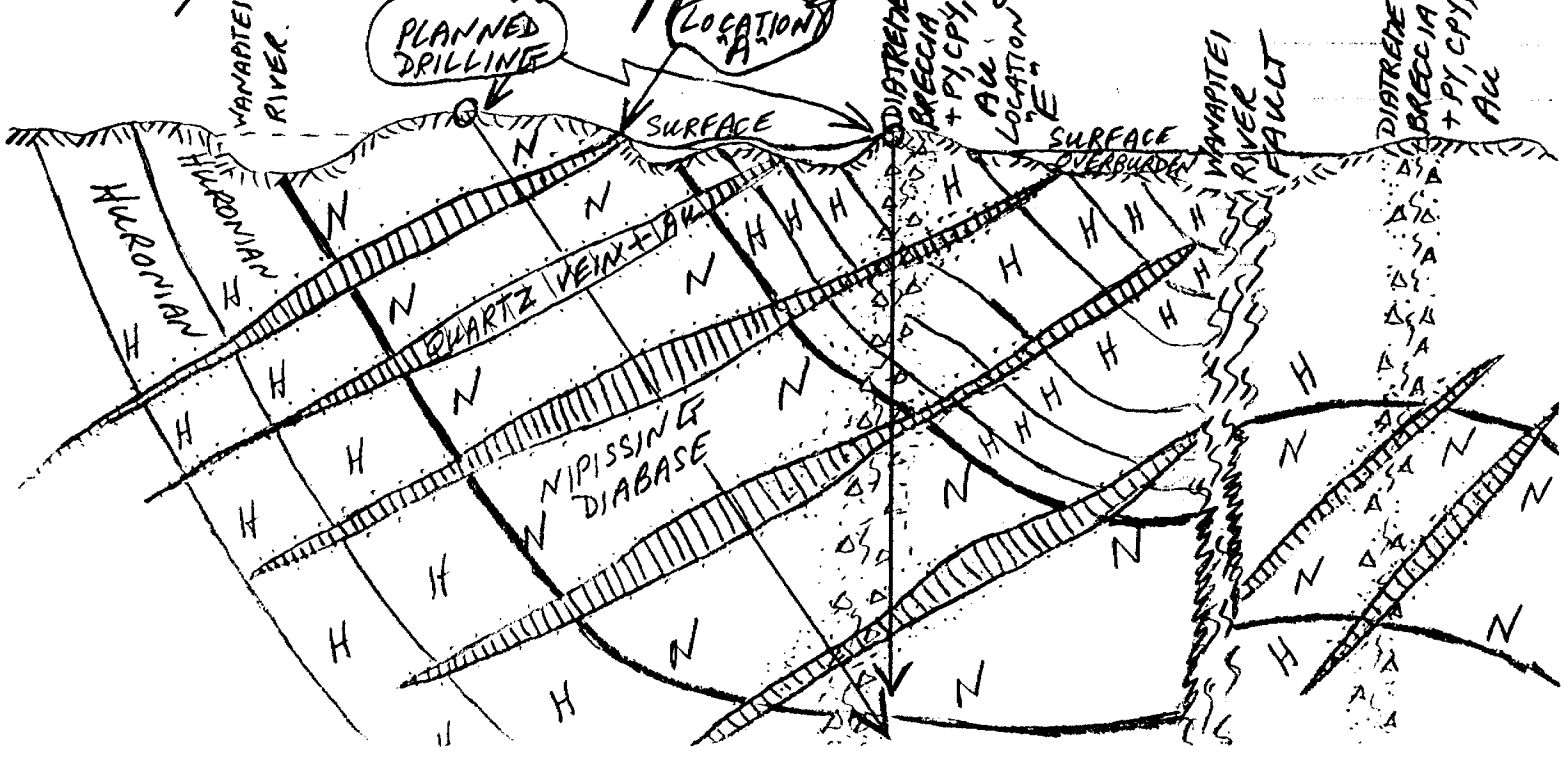
project area. This reflects a strongly magnetic, steeply dipping olivine diabase dyke which passes through the immediate vicinity of the Otto Gold Mine in central Scadding township, which produced 15,300 ounces of gold from 108,700 tons between September 1987 and July 1990 for a recovered grade of 0.14 oz gold per ton.

The major Wanapitei River fault strikes due south just east of the Hydro Dam, and is covered by swamps.

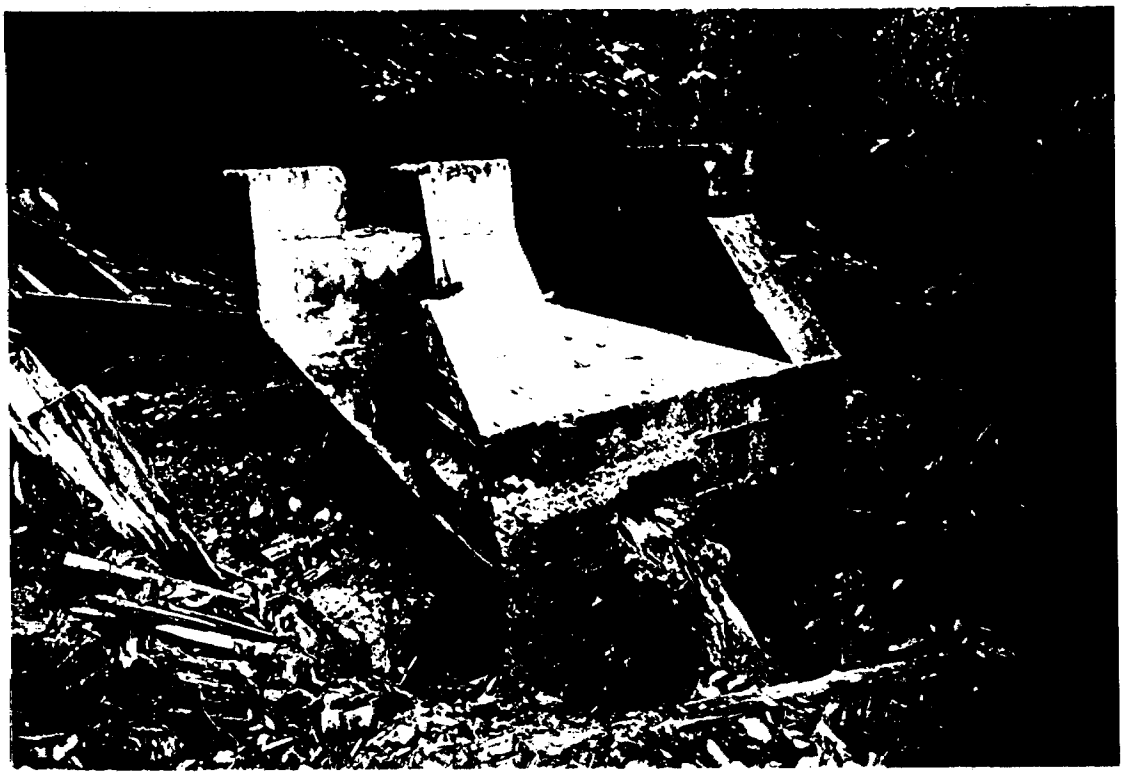
Several diatreme breccias, well mineralized with pyrite and vuggy quartz were found in four areas shown on the attached prospecting map, also a large quartz vein trending a little east of north, dipping at about 30° to the west in Nipissing diabase. A broken quartz muckpile of some 100 tons was the source of float to the ancient

gold mill just south of the dam. Use of the Gold Spear located gold particles which were verified by panning. Three grab samples of the finer muck returned a best assay of 0.30 oz gold per ton, the others ran 0.01 and 0.001.

The writer believes there are swarms of these flatly-dipping quartz veins and that they relate also to the diatreme breccias. Similar structures are common in the Temagami gold area and elsewhere but have never been explored properly because of the pronounced "nugget effect" of the gold distribution.



This idealized section shows the writer's picture of potential structures and gold bearing mineralization together with the format for drilling. The sulphide zones associated with alteration around the diabases and quartz veins will be readily tracked by short-wire self potential surveys planned for 1991 when the groundwater conditions are best, probably mid summer, after the Spring runoff which causes variations in potential differences. The best targets for gold exploration will be at the junction of diabases and quartz veins in the Huronian and Nipissing diabase. The excellent assays from locations "A", "E", "F", "G" will all be given detailed attention in 1991 Phase II work. It is clear from the erratic nature of the gold distribution that bulk sampling will be required to properly assess the economic potential of the discoveries.



CONCRETE BALL MILL FOUNDATIONS AND DIESEL (DEUTZ) ENGINE AT RUINS OF ANCIENT GOLD MILL, E. BANK OF WANAPITEI RIVER JUST SOUTH OF HYDRO DAM. (BELIEVED TO HAVE BEEN BUILT + OPERATED BY A. POTVIN.)

R.J. Graham 1990.

POTVIN'S MILL

On the east side of the Wanapitei River, just south of the Hydro Dam and about 50 feet from the water are the ruins of a small gold mill believed to have been operated by a Sudbury area prospector A. Potvin early this century. Little remains but a concrete base for a ball mill and parts of a Deutz diesel motor with a large cast-iron flywheel. Some 500 lbs of broken muggy quartz with minor pyrite lies on the hillside. Probing with the Gold Spear around the ball mill foundation and in the muckpile located numerous gold indications, and panning returned many "colors" and pinhead sized nuggets.

Mill feed came from an open-cut on a large quartz vein in Nipissing diabase about 1000 feet due south of the mill, where several pits

● and a stockpile of over 100 tons of broken quartz exists. Panning of these fines probed with the Gold Spear returned scattered colours and three samples assayed 0.30, 0.01 and 0.001 oz gold per ton. The mill has now been covered over by brush and trees dumped by the construction workers repairing the Heydon Dam. The attached photos of the mill were taken just before land to record this rather historic site.

24

Ministry of Northern Development and Mines
Ontario

Temiskaming Testing Laboratories

P.O. Box 799
Presley St.
Cobalt, Ontario
P0J 1C0
(705) 679-8313

Report Number

CB 11532

Laboratory Report

Date Oct. 5, 1990

Issued To: Mr. Robert Graham, 979 Leask Ave., North Bay, Ont. P1A 1V3

Sample Number	Gold ~~Oz.~~ Ppb ~~Per Ton~~	~~Gold~~ ~~Silver~~ Oz. Per Ton	
#59265	1440	.04	Loc. "B" Potvin's Mill - White qtz <1% PY
59266	13063	.38	" "B" pulverized qtz around mill <1% PY
59267	9909	.29	" "B" " " " " " "
59268	14469	.42	" "B" " " " " " "
59269	197	.01	Loc. "C" 14" White qtz vein + 2" WR. + 2% PY
59270	18	.001	Loc D Rusty qtz <1% PY 4' rep grab
59271	664	.02	Loc. E " " 2% PY 2' " "
59272	264	.01	Loc F " " 1% PY 1' " "
59273	234	.01	Loc. G " " 3% PY Tr CPY
59274	29	.001	Loc. "A" White qtz <1% PY 5Lb muck grab
59275	10389	.30	Loc. "A" " " " " " " " "
59276	404	.01	Loc. "A" " " " " " " " "
59277	15703	.46	Loc E Rusty qtz, 1-3% PY, CPY, Vuggy 24" chip
59278	10182	.30	Loc F Diatreme BX. qtz 1% PY, Vuggy 12" chip.
59279	6343	.19	Loc G Rusty qtz <1% PY, 3', muck grab.

Fees Received Receipt #A855635

L. Owsiacki
Manager
(Acting)

PROJECT WORK AND DISCOVERIES

Routine, traditional compass traverses were made around the boundaries of 5 selected "open" claims and also within them, using a "Hipchain" and "topofil". All rusty or other areas of merit were subjected to probing with a "Gold Spear" designed to detect gold particles down to 300 mesh in size (48pm). Panning was used constantly to verify any gold located by the "Gold Spear". Quartz veins and diatreme breccias were checked for Scheelite using a short-wave ultra-violet lamp in the field using a blanket. Grubbing was used to clear areas of interest, and shallow rock trenches were blasted in selected areas (See attached map.) to provide material for sampling. 15 samples were selected for gold assaying by Temiskaming Testing Laboratories. Assays ranged from .001 to 0.46 O.P.T. gold with 7 assays from 0.19 to 0.46 O.P.T. gold. (See GET 11532

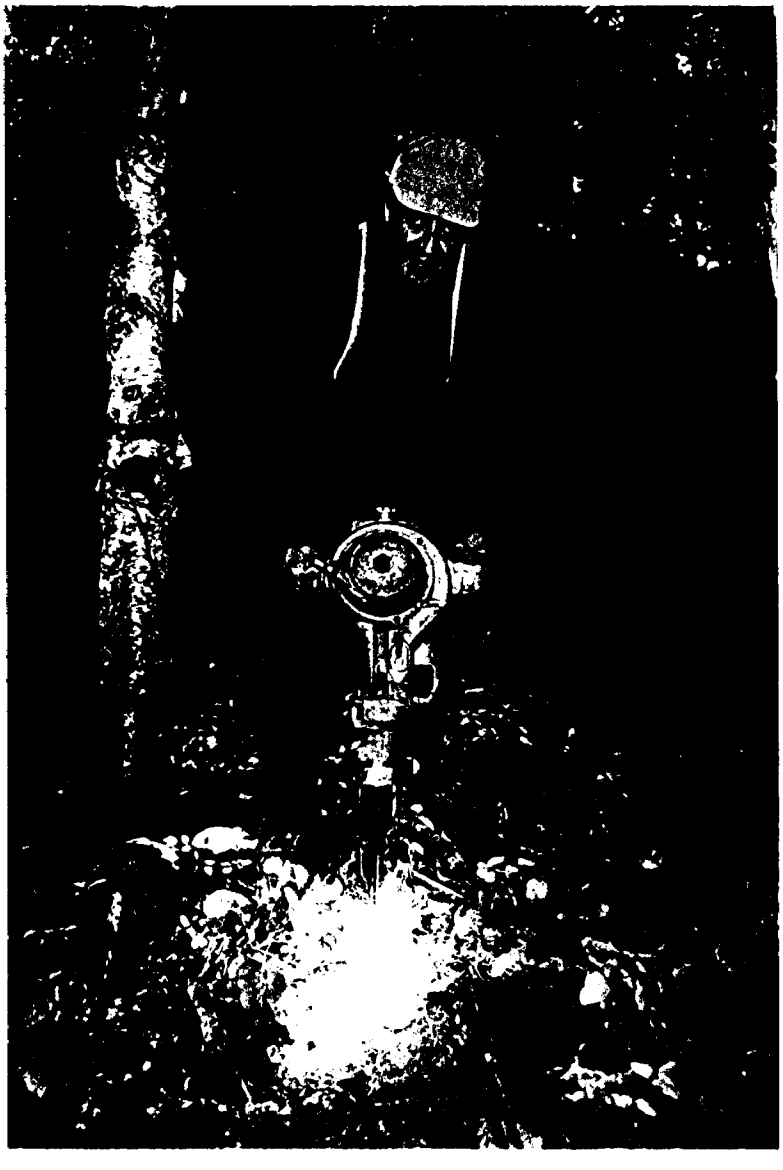
and attached map for sample locations and mineralogical descriptions.) No scheelite was located with the u.v. lamp. Four gold showings of interest were discovered, all of which warrant further work. The site of an ancient gold mill was discovered on the edge of the Waraputei River just south of the Hydro Dam and the feed source was determined to be from a large gold-bearing quartz vein about 1000 feet to the south, where a sizeable quartz muckpile remains.

The diatreme breccias showed extreme soda-metasomatism, with typical brilliant orange colouring. Pyrite was commonly disseminated in the alteration zones, with occasional chalcopyrite. Roasting of a panned pyrite concentrate followed by grinding in a steel pan released occasional colours, but most of the gold appears to occur as discrete wires or specks

(especially in the vuggy quartz) as "free" gold. It is clear that the nugget effect of gold distribution negates regular sampling techniques, and the only way to properly assess grade is by bulk sampling (several hundred pounds at a time) and test milling with a small mill.

The size of the quartz veins (up to 4 feet) and the wide pyrite distribution together with the strength and size of the alterations (+25 feet in width) bodes well for Phase II work in 1991, starting with detailed follow-up of the excellent results from areas A, E, F and G which carry gold values to 0.46 opt. gold over 2.0 ft.

HYDRO DAM ON WANAPITEI RIVER, SCADDING TOWNSHIP. (LOOKING NORTH)



R.J. GRAHAM DRILLING A SHOWING, SCADDING TOWNSHIP.

POPPING A SHOWING FOUND WITH THE GOLDSPEAR.

~ 4' QTZ VEIN + AR

100 TON MUCKPILE ON BIG QUARTZ VEIN FORMER CLAIM 990758. SOURCE OF FEED FOR THE OLD GOLD MILL JUST SOUTH OF THE HYDRO DAM.

USING THE GOLDSPEAR ON A SHOWING.

LENSY QUARTZ VEIN
FORMER CLAIM 990757

QUARTZ + PYRITE
DIATREME BRECCIA
FORMER CLAIM
990755

Highly Altered Wallrock +QTZ veining & PY.

← 4' QTZ VEIN

BIG QUARTZ VEIN IN NIPISSING DIABASE FORMER CLAIM 990758. USING "GOLDSPEAR" TO DETECT GOLD IN THE BROKEN FINES.

PROSPECTING, DAILY LOG.

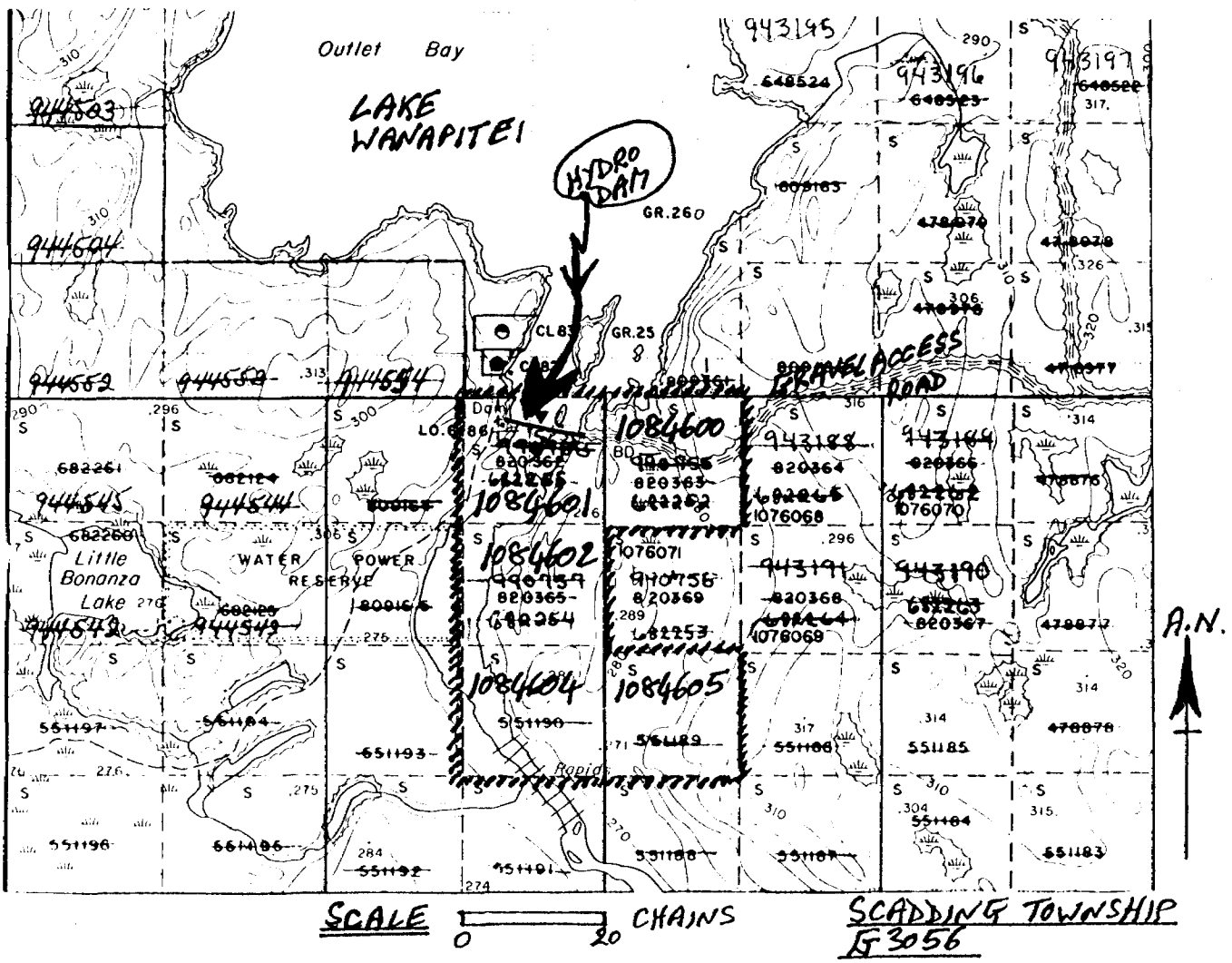
PROJECT AREA SCADDING TOWNSHIP SUDBURY M.E. DIVISION

DATE	WORK PERFORMED.
July 22 '90	Prospecting former claim 990755 along & between claim lines.
23	〃 〃 〃 〃 〃 〃 〃 〃
24	〃 〃 〃 〃 〃 〃 〃 〃
25	〃 〃 〃 〃 〃 〃 〃 〃
27	〃 〃 〃 〃 〃 〃 〃 〃
29	〃 〃 〃 〃 〃 〃 〃 〃
30	Prospecting former claim 990758 as above
31	〃 〃 〃 〃 〃 〃
Aug 3	〃 〃 〃 〃 〃 〃
6	〃 〃 〃 〃 〃 〃
7	〃 〃 〃 〃 〃 〃
8	Prospecting former claim 990757 as above
13	〃 〃 〃 〃 〃 〃
14	〃 〃 〃 〃 〃 〃
15	〃 〃 〃 〃 〃 〃
16	〃 〃 〃 〃 〃 〃
17	Prospecting former claim 990756 as above
22	〃 〃 〃 〃 〃 〃
29	〃 〃 〃 〃 〃 〃
Sept 4	〃 〃 〃 〃 〃 〃
5	Prospecting former claim 551190 as above
6	〃 〃 〃 〃 〃 〃
7	〃 〃 〃 〃 〃 〃
8	〃 〃 〃 〃 〃 〃
9	Prospecting former claim 551189 as above
10	〃 〃 〃 〃 〃 〃
11	〃 〃 〃 〃 〃 〃
17	〃 〃 〃 〃 〃 〃
20	〃 〃 〃 〃 〃 〃
25	〃 〃 〃 〃 〃 〃

DATE	WORK PERFORMED
Sept 26	Drilling, blasting, sampling gold showings A-E
27	" " " " " "
28	" " " " " "
29	" " " " " "
Oct 1	" " " " " "
2	" " " " " "
3	Digging & panning around Potvin's old mill.
4	" " " " " "
5	Working along E. bank of river below dam to rapids
6	" " " " " "
7	" " " " " "
8	Working along W. bank of river below dam to rapids
9	" " " " " "
12	" " " " " "
13	" " " " " "
16	Checking around old pits using "Goldspear" & pan.
17	" " " " " "
20	" " " " " "
22	" " " " " "
23	" " " " " "
24	" " " " " "
25	Grubhoe work & using "Goldspear" from claim 990758
27	" " " " " "
29	" " " " " " 990757
30	" " " " " "
NOV 1	Working on Report & Map etc.
2	" " " " "
3	" " " " "
4	" " " " "
5	" " " " "
6	" " " " "
7.	" " " " "

STAKING CARRIED OUT AFTER PROJECT COMPLETION

Following the discovery during the OPAP Project period of several gold showings with intense alteration and widespread sulphide mineralization, the undersigned staked five contiguous claims each of about 40 acres as shown on the attached claim map. Further staking may be carried out as work progresses.



CONCLUSIONS

The results of the work by the undersigned are most encouraging and verified the writes belief that more gold deposits remain to be discovered in the area.

The number of surface gold showings, the strength and widespread nature of mineralization and quartz stockworks, together with the complete absence of drilling give the project excellent exploration potential.

The extensive shallow overburden is well suited to the use of Self Potential surveying to define areas of sulphide concentration which may be gold-bearing and better target further work.

PLANS FOR PHASE II in 1991

The discovery of several gold showings in extensively altered and pyritized areas of Nipissing diabase and Huronian sediments is most encouraging. The widespread occurrences in the face of extensive but shallow overburden cover indicate the suitability of geophysics for Phase II exploration.

Plans to explore and define large, low-grade gold-bearing quartz veins/breccias/pyrite areas include short-wire (100 foot) self-potential surveying.

Significant anomalies will be subjected to probing with the "Gold Spear" to outline gold-bearing areas of merit. A prospectors "try bar" will then be used to define reachable sub-crop which will be stripped by hand for sampling and assaying. Bulk sampling will be attempted to overcome the nugget effect.

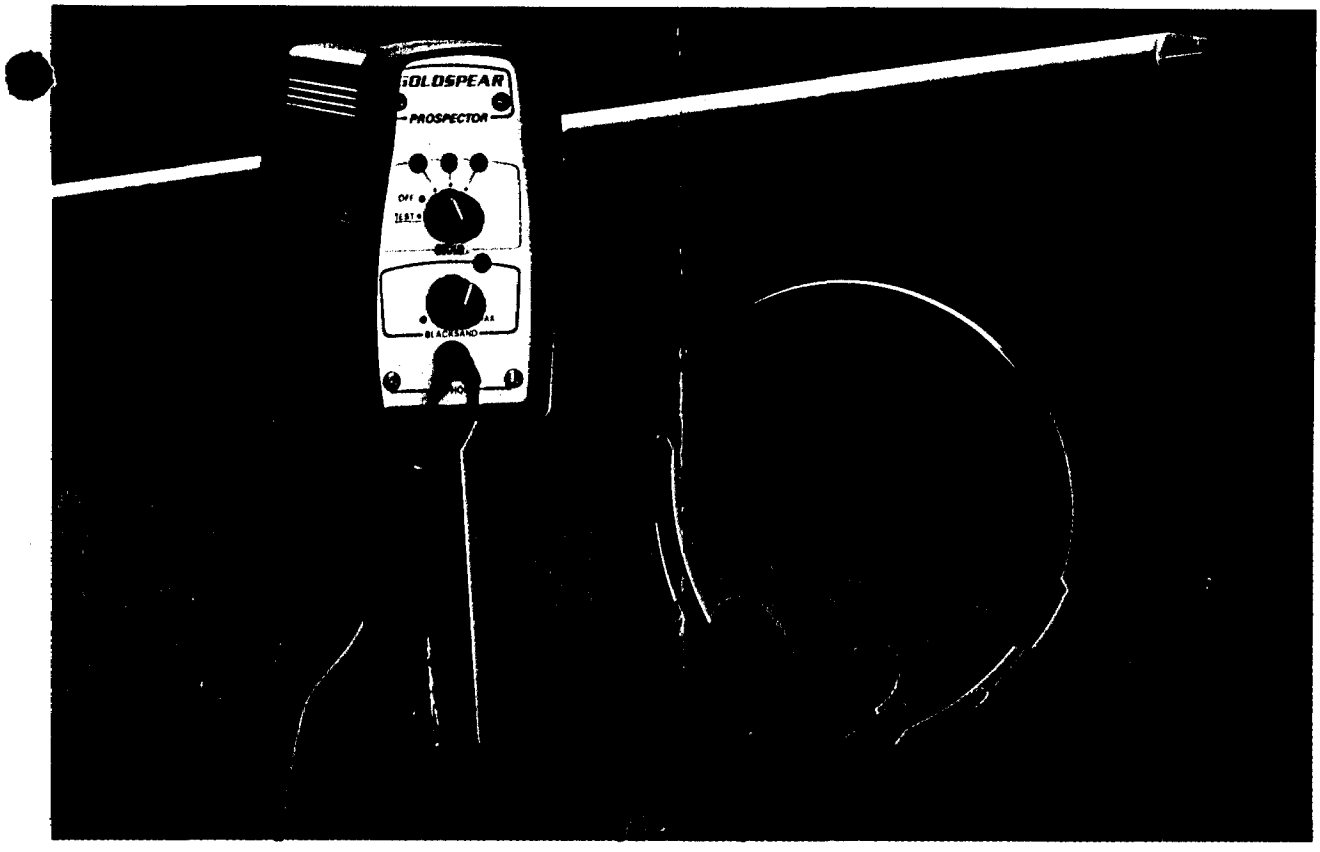
REFERENCES.

1990 Claim map Scadding township G3056
1990 Pertinent Assessment Files, Sudbury.
1986 O.G.S. GDIF 317
1984 O.G.S. Map 2491 Scale 1:50,000
1983 Mossman & Harron "Origin & Distribution of Gold in the Huronian".
1983 O.G.S. Map 2603 Easton Part, Scale 1:50,000.
1982 O.G.S. Report 213 and Map 2451
1981 O.G.S. Sudbury Data Series Maps P2448, P2444, P2445.
1980 Topographic Map "Capreol" 41 I/10 Scale 1:50,000.
1980 O.G.S. Map P2228, Scale 1" = 1/4 mile.
1980 O.G.S. Map 2440 Scale 1:1,600,000.
1979 OGS Mineral Deposits Circular 18 Part 2
1978 Terrain Data Base Map 5001, Scale 1:100,000.
1977 Air Photos, Scale 1" = 1/4 mile.
1977 O.G.S. Map 2393, East Central, Scale 1" = 16 miles.
1974-89 Selected references to exploration and production by Gulf Minerals, Northgate, Orofino, Groundstar.

1965 G.S.C. Aeromagnetic map 5111G, Scale 1" = 1 mile.
1963 O.D.M. Report No 15 and Map 2037, Scale 1" = 1/2 mile.
1961 O.G.S. Report No 2 and Map 2009, Scale 1" = 1/2 mile.
1959 O.G.S. Map P53 Scale 1" = 1/4 mile.
1939 O.D.M. Report Volume XLVIII Part I and map 48m, Scale 1" = 1/2 mile.

ADDENDUM

GOLDSPEAR



NEWS FLASH PROSPECTING GOLD IN ALLUVIAL SOIL

GOLDSPEAR — putting a golden opportunity within your grasp. The **Goldspear Prospector** consists of extendable earth probes with a measuring unit and headphone.

It works on a simple principle. The sensor in the spearhead registers Gold and black sand in the soil, river beds and where Gold is likely to be found.

Using computer technology and micro chips, the reading is then transformed to audible signals in the headphones and visual indication on the panel of the instrument.

The **Goldspear** operates two calibrating circuits, one for Gold and a separate circuit for black sand, giving different bleeps so the prospector will instantly know the potential for finding Gold.

The **Goldspear** is extremely sensitive and accurate and registers Gold particles as fine as **300 mesh.**

The frequency of bleeps emitted indicates how much there is to be found — and you know for sure that you have found it.

Specification:

Weight:	Measuring instrument incl. batteries	2 lb
	Prospecting probe with sensor head	1.2 lb
	Standard 4 foot extention probe	1.1 lb
Smallest detectable Gold dust		300 mesh
Lowest Gold grade for detection		1 ppm
Power: Standard battery		9V type PP3
Battery life		Approx. 80 hrs
Water resistance		Splash and rain proof

Design and specifications can be altered without any prior notice.

For the prospecting miner there is no portable instrument in the world that compete with the "GOLDSPEAR PROSPECTOR". Convince yourself by a demonstration at your nearest GOLDSPEAR dealer.

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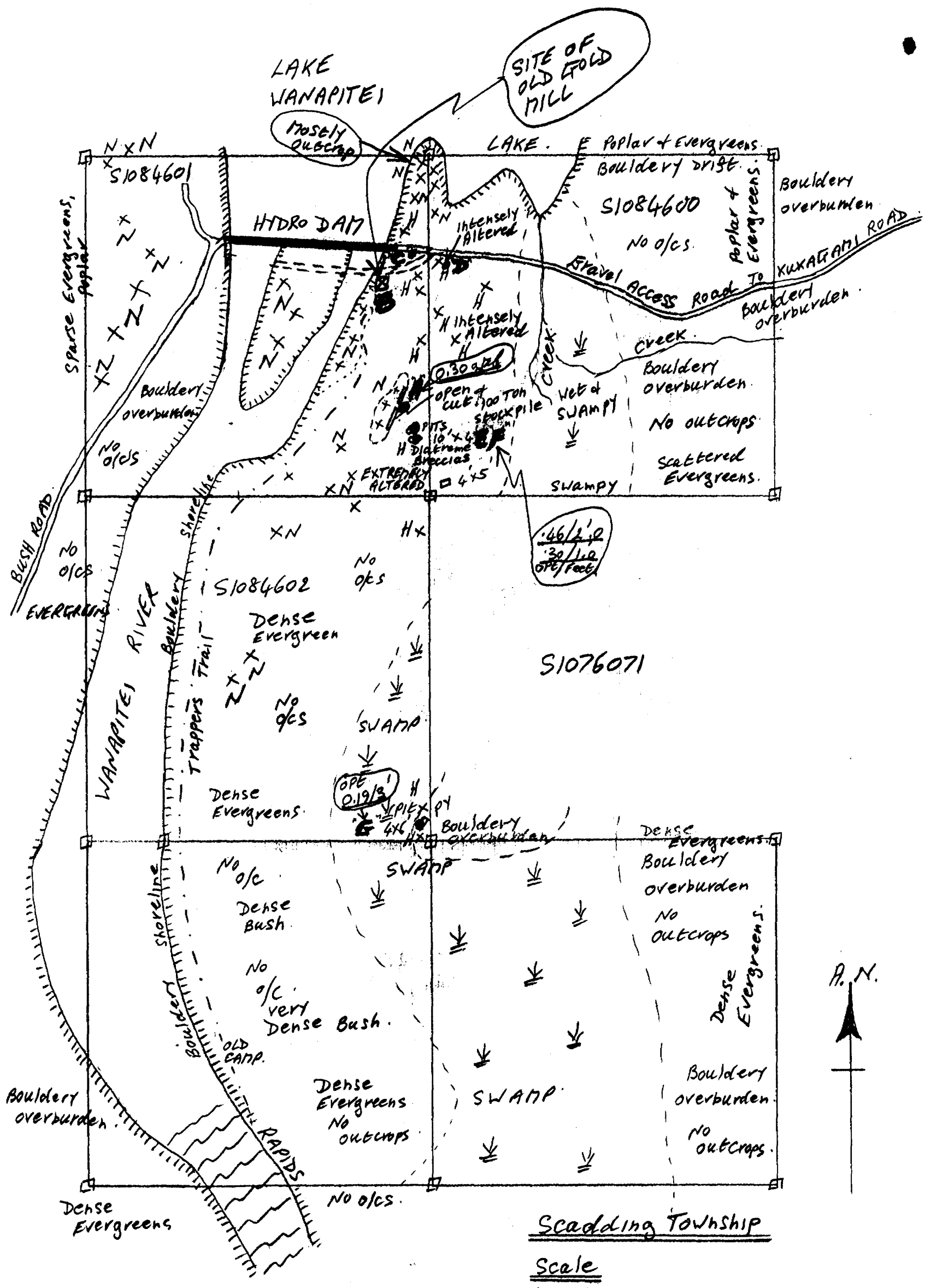
ESM457b Deal No. 2 *Photographed, Designed, Reproduced & Printed in England by Fidelity Colour Printers, Basildon, Essex. Basildon (0268) 44066*


LAKE WANAPITEI
SITE OF OLD GOLD MILL
Mostly Outcrop
LAKE.
E Poplar + Evergreens
Bouldery drift
S1084601
S1084600
No O/cs.
Bouldery overburden
HYDRO DAM
Intensely Altered
Poplar + Evergreens
Gravel Access Road To KUKATAMI ROAD
Sparse Evergreens, Poplar
Bouldery overburden
Creek
Bouldery overburden
No outcrops
Scattered Evergreens.
Swampy
Wet & SWAMPY
Open cut
300 Ton stockpile
3 PITS 10'x4'
H Diatreme breccias
EXTREMELY ALTERED
4x5
No O/cs
BUSH ROAD
EVERGREENS
WANAPITEI RIVER
Shoreline
Bouldery
Trappers Trail
S1084602
Dense Evergreen
No O/cs
S1076071
SWAMP
OPE 0.19/3'
PIT 4x6'
Dense Evergreens.
Bouldery overburden
No O/c
Dense Bush
No O/c very Dense Bush.
OLD CAMP.
Dense Evergreens
No outcrops
SWAMP.
Bouldery overburden.
No outcrops.
RAPIDS
No O/cs.
Dense Evergreens
A. N.
Scadding Township
Scale
0
400
800
Feet
N= NIPISSING DIABASE
H = HURONIAN SEDIMENTS
"A"-"G" = SHOWING AREAS
(SEE PAGE 24 FOR DETAILS.)
OPAP
90-504
R.J. Graham '90

R B Graham
OPAP 90-504

Ministry of Northern Development and Mines
Ontario

ONTARIO GEOLOGICAL SURVEY

EXPLORATION DATA MAP

GEOLOGICAL DATA INVENTORY FOLIO 317

(Map 2 of 2)

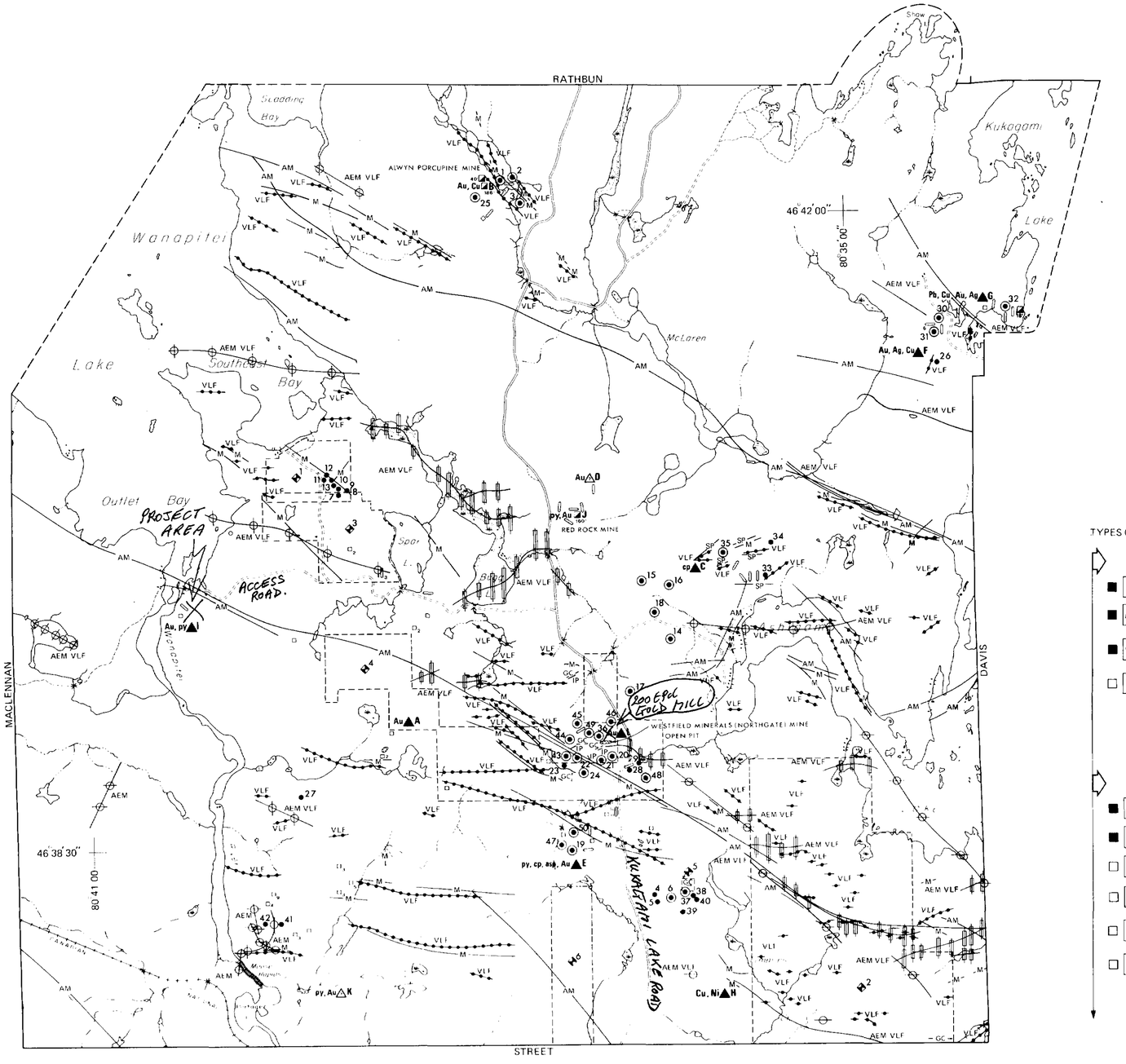
SCADDING TOWNSHIP

DISTRICT OF SUDBURY

Scale 1:31 680

Kilometre 0.5 0 0.5 1 Kilometre

Mile 0.5 0 0.5 1 Mile



TYPES OF DATA SHOWN ON THIS MAP

GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

- Geochemical sample site, with reference number
- Area of geochemical sampling, with reference number
- Age dating material sampling site, with reference number
- GC — Geochemical Anomaly

GEOPHYSICAL ANOMALIES

- AM — Airborne magnetic anomaly
- Airborne electromagnetic anomaly Length of anomaly along flight line
- Airborne electromagnetic anomaly Location of anomaly along flight line
- Airborne electromagnetic anomaly Conductor axis: definite, probable, possible
- ARA — Airborne radiometric anomaly
- M — Ground magnetic anomaly
- VL — Ground electromagnetic anomaly (VL - Vertical loop; HL - Horizontal Loop; VLF - Very low freq; Turam; JEM - Crone Em - 16)
- RA — Ground radiometric anomaly
- IP — Induced polarization anomaly
- SP — Self potential anomaly
- AFMAG — Audio-frequency magnetic anomaly (total intensity)
- R — Resistivity anomaly
- GR — Gravity anomaly

MISCELLANEOUS DATA

- Trenching, pit
- Adit
- Open pit
- Multiple Pits
- Rock quarry
- Sand and/or gravel pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references and abbreviations.

GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES

- cp A. — Mineral occurrence at surface, with reference letter
- Au A. 84' — Mineral occurrence with shaft, depth given with reference letter
- Ag A. — Mineral occurrence reported but exact location uncertain, with reference letter
- cp A. — Mineralized float with reference letter

DRILLHOLE

- Location of single drillhole, with reference number
- Location of closely spaced group of drillholes, with reference number
- Drillhole, exact location uncertain, with reference number
- Property with underground drillholes in this general area, with reference number
- Property with drillholes which have not been plotted on map, with reference number
- Reverse circulation drillhole; churn drilling, with reference number

Ministry of Natural Resources
Ontario

OPAP 90-504

Ontario Geological Survey
Map 2451
Massey Bay

SYMBOLS

- Glacial striae.
- Small bedrock outcrop.
- Area of bedrock outcrop.
- Bedding, horizontal.
- Bedding, top unknown, (inclined, vertical).
- Schistosity, (horizontal, inclined, vertical).
- Gneissosity, (horizontal, inclined, vertical).
- Fracture cleavage, (horizontal, inclined, vertical).
- Geological boundary, observed.
- Geological boundary, position interpreted.
- Fault, (observed, assumed).
- Vein.
- Anticline, syncline, with plunge.
- Drill hole, (vertical, inclined).
- Location of sample exhibiting deformation lamellae in quartz.
- Contact of Pleistocene and Recent rocks.
- Swamp.
- Motor road, Provincial highway number enforced where applicable.
- Other road.
- Trail, portage, winter road.
- Building.
- Township, Indian reserve boundary, meridian approximate position only.
- Surveyed line.
- Mining property, surveyed. Boundary approximate position only.
- Mineral deposit, mining property, unsurveyed, approximate position only.

NOTE

Geological boundaries just east of the Sudbury Nickel Irruptive, i.e. east of Blue Lake and Capre Lake and around Skead, commonly are megabreccia clast boundaries.

SOURCES OF INFORMATION

Geology by B. Dressler and assistants, Ontario Geological Survey, 1977, 1978.
Geology is not tied to surveyed lines.

Assessment Files, Assessment Files Research Office, Ontario Geological Survey, Toronto, and President Geologist's Files, Ministry of Natural Resources, Sudbury Office

Aeromagnetic maps 1511G, 1512G, G.S.C.

Geological Survey of Canada, Map 1948, Wanapitei Lake Area.

Ministry of Natural Resources, Ontario Geological Survey, Map 48m, Ashigumi Lake Area, scale 1 inch to ½ mile, 1:31 680, 1959.
Map 2009, Maclennan and Scadding Townships, scale 1 inch to ½ mile, 1:31 680, 1961.
Map 2037, Kelly and Davis Townships, scale 1 inch to ½ mile, 1:31 680, 1962.
Map 2170, Sudbury Mining Area, scale 1 inch to 1 mile, 1:63 360, 1969.
Map 2361, Sudbury-Cobalt, Geological Compilation Series, scale 1 inch to 4 miles, 1:253 440, 1977.
Preliminary maps, Ontario Geological Survey:
P. 367, Capreol, scale 1 inch to 2 miles, 1:126 720, 1969.
P. 1606, Aylmer Township, scale 1 inch to ¼ mile, 1:15 840, 1977.
P. 1609, Rathbun, Township, scale 1 inch to ¼ mile, 1:15 840, 1977.
P. 2076, Wanapitei Lake Area (Southern Part), scale 1 inch to ¼ mile, 1:15 840, 1978.
P. 2227, Maclennan Township, scale 1 inch to ¼ mile, 1:15 840, 1978.

Cartography by M.G. Sefton and assistants, Surveys and Mapping Branch, 1980.

Base map derived from maps of the Forest Resources Inventory, Surveys and Mapping Branch.

Magnetic declination in the area was approximately 9° West, 1978.

PROPERTIES, MINERAL DEPOSITS

1. Akins, G., and Akins, J.
2. Alwyn Porcupine occurrence.
3. Bennett, W. S.†
4. Bilsky, J. J.†
5. Blanchard, E. (Bonanza Mine)
6. Burton, M.
7. Crystal Gold Mine.
8. Falconbridge Nickel Mines Limited.
9. Gill, J.
10. Glade Exploration Limited. [1973]
11. Gold Nugget and Development Company.
12. Gold Nugget and Development Company, and LaForest, J.
13. Gordon Mine
14. Gulf Minerals Canada Limited. [1972]
15. Handy, J. O.
16. Harris, W. P.
17. Hollinger Mines Limited. [1976]
18. Inco Limited.
19. Inonco Mining and Smelting Limited. [1966]†
20. Kelly-K-Mines Limited.
21. Kenrich Explorations (Canada) Limited. [1970]
22. Last Chance Mine.
23. McBride, E.
24. McChesney Gold Mines Limited†
25. McLean, P. C.
26. McMillan Gold Mines Limited (Red Rock Mine)
27. McVittie, G. E.†
28. Miller, M.
29. Mondeux Mine.
30. Noranda Mines Limited. [1955]
31. Nova Besucage Mines Limited†
32. O'Hara, E. L., and Jansen, N. H.
33. Picton Uranium Mines Limited.
34. Pikeman, E. J.
35. Rathbun Lake occurrence.
36. Tower Financial Corporation Limited, and Hazlett, J. M.
37. Watt, D. H.
38. Wieclaw, E.

Information current to December 31, 1978. Former properties on ground now open for staking are only shown if exploration data is available – a date in square brackets indicates last year of exploration activity. For further information see report.

†*Appears on accompanying Map 2450, Wanapitei Lake Area report.*

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Published 1981

Adjoins Map 2450

Adjoins Map 2037

WANAPITEI LAKE

NORMAN

CAPREOL

MACLENNAN

SCADDING

KELLY

RATHBUN

DAVIS

Ashigami Lake

Kukagami Lake

Boland's Bay

Skead

Massey Bay

Seadding Bay

Portage Bay

Southeast Bay

Outlet Bay

PROSPECT AREA

SUBDIVISION ANNULLED

Lot 3 Lot 2 Lot 1 Lot 12 Spaidal Lot 5

Scale 1 Inch to 50 Miles
N.T.S. reference 41 I /10,15

LEGEND

PHANEROZOIC

CENOZOIC[*]

QUATERNARY

PLEISTOCENE AND RECENT

Gravel, sand, silt, swamps.

UNCONFORMITY

PRECAMBRIAN[§]

LATE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS

14a Olivine diabase.

INTRUSIVE CONTACT

MIDDLE PRECAMBRIAN

SUDBURY NICKEL IRRUPTIVE

13a Sublayer.
13b Norite.
13c Transition zone norite.
13d Micropegmatite.
13e Granitic dike.

INTRUSIVE CONTACT

WHITEWATER GROUP

ONAPING FORMATION

12a Quartzite breccia (basal breccia)
12b Tuff

SUDBURY EVENT

MAFIC INTRUSIVE ROCKS

NIPISSING INTRUSIVE ROCKS

11a Gabbro.
11b Pegmatitic gabbro.
11c Granophyre.
11d Granitic dike rock, pegmatite.
11e Quartz plagioclase porphyry †

INTRUSIVE CONTACT

HURONIAN SUPERGROUP

COBALT GROUP

LORRAIN FORMATION

10b Grey wacke, arkose, subarkose, minor subarkose, wackes and quartz wacke. (10b, c, and d).
10c Pink, pinkish grey.
10c Grey.
10d Greenish-grey, grey.†
10e Quartz wacke to subarkosic wacke.†
10f Arkoses, unsubdivided.†

GOWANDA FORMATION

9a Conglomerate.
9b Arkose.
9c Wacke (not laminated).
9d Laminated wacke.
9e Wacke unsubdivided.†

QUIRKE LAKE GROUP

SERPENT FORMATION

8a Arkose, arkosic wacke, calcareous arkose, minor conglomerate.
8b Dolomite porphyroblastesis.[¶]

ESPANOLA FORMATION

7a Calcareous siltstone, limestone, calcareous wacke.

BRUCE FORMATION

6a Conglomerate, pebbly, wacke, minor arkose, wacke.

HOUGH LAKE GROUP

MISSISSAGI FORMATION

5a Quartz-pebble conglomerate.
5b Arkose, subarkose, arkosic wacke, subarkosic wacke.
5c Silty wacke.

UNCONFORMITY

EARLY PRECAMBRIAN

MAFIC INTRUSIVE ROCKS

4a Diabase
4b Gomerophyric diabase.
4c Porphyritic diabase.

INTRUSIVE CONTACT

FELSIC PLUTONIC ROCKS

3a Granodiorite, diorite.
3b Migmatite.

INTRUSIVE CONTACT

METAVOLCANICS AND METASEDIMENTS

METASEDIMENTS

2a Wacke.
2c Quartz siltstone, arkose.
2c Biotite-plagioclase gneiss, minor hornblende-plagioclase gneiss.
2d Ironstone, ferruginous chert.†

METAVOLCANICS

1a Mafic and intermediate metavolcanics.
1b Amphibolite.
1c Dacite.†
1d Felsic metavolcanics.†

Breccia — Pseudotachylite.

Ag	Silver.	**Pd**	Palladium.
Au	Gold.	**Pt**	Platinum.
carb	Carbonate.	**q**	Quartz.
Cu	Copper.	**S**	Sulphide mineralization.
gn	Galena.	**U**	Uranium.
Ni	Nickel.		

[*]*Unconsolidated deposits. Cenozoic deposits are represented by the lighter coloured and uncoloured parts of the map.*

[§]*Bedrock geology. Outcrops and inferred extensions of each rock map unit are shown respectively in deep and light tones of the same colour. Where in places a formation is too narrow to show colour and must be represented in black, a short black bar appears in the appropriate place.*

[¶]*Age not known, occurs also in Lorrain Formation.*

†*Appears on accompanying Map 2450, Wanapitei Lake Area report.*

Ontario Geological Survey

Map 2451

MASSEY BAY

SUDBURY DISTRICT

Scale 1:31,680 or 1 Inch to ½ Mile

Chains 60 40 20 0 1 2 Miles
Metres 1000 0 1 2 3 Kilometres
Feet 1000 0 5,000 10,000 Feet