

ASSESSMENT REPORT OF WORK DONE:

**MAPPING AND PROSPECTING
(AUGUST 29 – SEPTEMBER 11, 1998)**

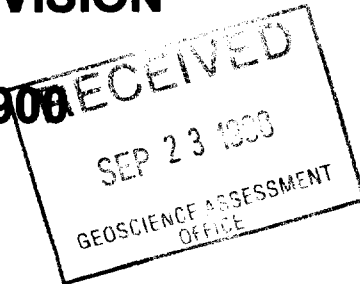
**ON CLAIMS
1184526 - 1184528 INCLUSIVE**

**EMERALD LAKE AREA
(AFTON TOWNSHIP)**

2.18895

SUDBURY MINING DIVISION

CLAIM MAP G-2908



**PREPARED BY: KEVIN G. MURPHY B.A.,B.Sc.
Canmine Resources Corp.**

September, 1998

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2.18895



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Introduction

Canmine Resources Corporation of London, Ontario undertook a mapping and prospecting program on its Emerald Lake claims between August 23 and September 13, 1998 (Dates include travel time). The property includes three contiguous and three discontiguous claims. The mapping and prospecting was conducted by Kevin G. Murphy, B.A., B.Sc. (Geology), of Canmine Resources Corporation's Winnipeg office. This report deals with claims 1184526 to 1184528 inclusive.

Location and Access

The Emerald Lake cobalt-copper prospect (MDI-41116NW-00054, Mineral Deposit Inventory, Ontario Ministry of Northern Development and Mines) is located about 60 kilometers northeast of Sudbury, Ontario in Afton Township (Fig. 1).

The property is accessible by road year round by taking Highway 539 west at Sturgeon Falls to Highway 805 north at River Valley. Highway 805 continues north to the northern tip of Emerald Lake, giving complete access to the lake. The Property is transected by Highway 805 (Fig.2).

The claims are situated across the southern-most peninsula north of the southeast bay of Emerald Lake and along the east side of the lake, immediately east of Highway 805 (Fig. 3).

Property Status

The property consists of three claims in Afton Township (G-2900), Sudbury Mining Division, Province of Ontario, all within NTS 411-16NW (Emerald Lake).

All three claims were staked on September 17, 1996; the claim stakers were in the employ of Vytal Exploration Services. The holder of the claims is recorded as William Ferreira, Suite 1605-275 Dundas St., London ON, N6B 3L1. The claims are owned 50-50% by Canmine Resources Corporation and Red Engine Resources Corporation and is a contiguous group of claims held in the area by the above two companies.

1. Claim 1184526, staked by Robert Ducharme of Nelson House, Manitoba;
2. Claim 1184527, staked by Robert Ducharme of Nelson House, Manitoba;
3. Claim 1184528, staked by Ewan Downie of Thunder Bay Ontario.

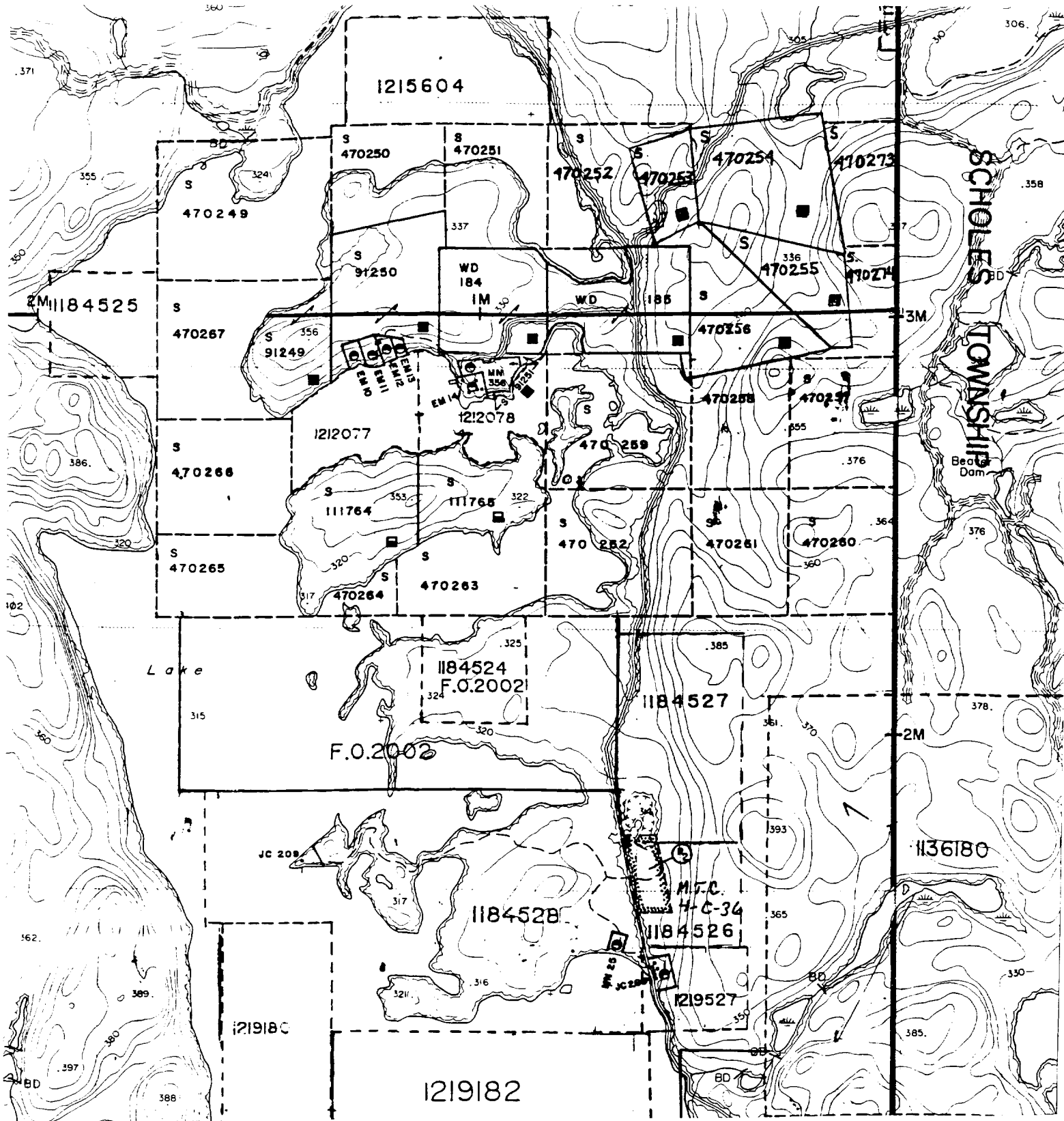


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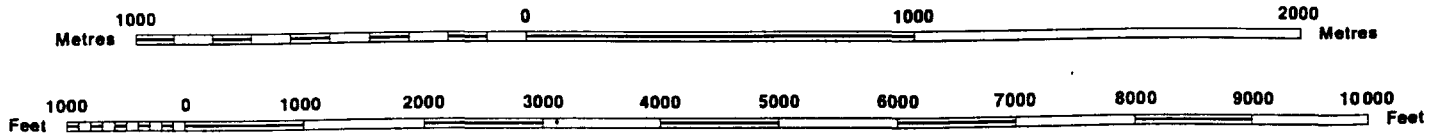
Figure 1



Figure 2



Scale 1:20 000



Contour Interval 10 Metres

Figure 3. Claim location Map.

Exploration History

The exploration history of the claim is summarized in Table 1.

Table 1: Summary of Exploration History

Year	Company	Type of Work	Comments
1934		2 DDH "Limited" trenching	
1947	X-Ray Prospecting Syndicate	Magnetometer Survey	Drilling recommended: No assessment work Filed.
1956	Wabico Mines Ltd.	7DDH (2868 ft.) Geological mapping Geochemical survey Resistivity survey	
1962	Hanna Mining Company	Geological survey Magnetic survey Stripping, trenching Chip sampling 1 DDH (164)	Iron ore exploration: under option from Wabico Mines, Ltd.

In 1934, two diamond drill holes and "a limited amount of trenching" were carried out on the Emerald Lake prospect (Mineral Deposit Inventory File).

In 1947, X-Ray Prospecting Syndicate carried out a magnetometer survey, and recommended diamond drilling. No further work was filed for assessment (O.G.S. Report 170).

Wabico Mines, Ltd. held eleven unpatented mining claims in the Emerald Lake area in 1956. Geo-Scientific Prospectors Limited optioned the claims and carried out a geological, geochemical, and electrical resistivity surveys, and drilled seven holes ("WA-1" through "WA-7, inclusive) totaling 2868 ft. (1778 m) on former claim S 91055 (the southern peninsula in Emerald Lake) in 1956 (M.R.C. Circular No. 12). Claim 1184528 currently covers former claim S 91055. These drill holes are summarized in Table 2. The Mineral Deposit Inventory summarizes mineralization from these drill holes as Temiskaming-type sediments with (1) "Large areas of disseminated Pyrrhotite with minor pyrite and chalcopyrite. Assays up to 0.5 % copper from diamond drill core" and (2) Small lenses of "heavy" cobalt and copper mineralization exposed in trenches (Mineral Deposit Inventory File 4116NW deposit 00054).

In 1962, the property was optioned to Hanna Mining Company, who carried out a geological and magnetic survey, stripping, trenching and chip sampling in a search for iron ore. Wabico Mines Limited drilled one additional hole (DDH W-1 164 feet; 50.0 m) (Meyn, 1977).

Table 2: Wabico Mines Ltd. – Drill Hole Summary

DDH No.	Bearing	Initial Dip of DDH	Thickness of Overburden (ft.)	Total Length of Hole (ft.)	Mineralization Noted in Log	Year Drilled
WA-1	180	45	40	750	Py,po,cpy,ep	1956
WA-2	180	45	12	900	Py, po, sp	1956
WA-3	203	45	12	173	Cpy, po, py, Cobaltite	1956
WA-4	250?	?	?	?	No log	1956
WA-5	9	45	20.5	454	Cpy,py,po,asp	1956
WA-6	360	45	6	337	Py, po, cpy	1956
WA-7		90	8	254	Py, po, cpy	1956

No assays were filed for assessment.

The area was part of the Lake Temagami Skyline Reserve for more than twenty years (since 1973), during which staking and mineral exploration rights were withdrawn by ministerial order. The area was reopened for staking September 17, 1996.

Regional Geology

The Emerald Lake property is located about 60 kilometers northeast of the large Sudbury Basin nickel ore bodies and about 70 kilometers southwest of the Cobalt, Ontario, Cobalt-Silver Mining Camp. The property occurs within a small volcanic-sedimentary sequence that is surrounded by the Nipissing Diabase Intrusions. The Golden Rose Gold Mine (145,589 tones @ 0.30 oz/ton Au) is located about 1 kilometer north of the property in the same volcanic-sedimentary sequence.

The property occurs within an outlier of the Temagami Greenstone Belt, Neo- to Mesoarchean (2.5 to 3.4 Ga.) rocks of the Western Abitibi Subprovince (Ontario Geological Survey, 1991). These rocks consist of flow and fragmental metavolcanic rocks, ranging from rhyolite to basalt, chert, iron formation, minor metasedimentary and intrusive rocks, and related migmatites. These rocks have been intruded by coeval tholiitic pyroxenite-gabbro-anorthosite sills, a layered komatiitic dunite-peridotite-gabbro plug, calc-alkalic diorite and quartz diorite sills. Later intrusions include tonalite and granite batholiths, and lamprophyre and pyroxenite dykes (Jackson and Fyon, 1991).

Rocks are generally metamorphosed to greenschist facies, with the exception of rocks near granitoid batholiths, which are metamorphosed to amphibolite facies (Jackson and Fyon, 1991). Rocks of the outlier of the Temagami Greenstone Belt occur in the Emerald Lake area generally strike east-west with near vertical dips, and an easterly penetrative foliation. Block faulting affected the region from Early to Late Precambrian time, and is considered by Meyn (1977) to be the "most important structural element" in the area. Meyn (1977) defines four groups of block faults:

- 1) N20 degrees E to N40 degrees E trending, the most prominent.
- 2) North-south trending.
- 3) Small faults N30 degrees W to N50 degrees W trending.
- 4) S50 degrees E to S70 degrees E, parallel to diabase dykes.

The later set are considered to be late tensional features (Meyn, 1977).

Outliers of the Temagami Greenstone Belt generally are considered different fault blocks; defined stratigraphic-structural assemblages have not been traced from the main Temagami Greenstone Belt proper.

Most of the rocks in the larger Afton Township region are part of the Huronian Supergroup of Paleoproterozoic metasedimentary rocks, specifically the Upper Huronian Cobalt Embayment assemblage, and Paleoproterozoic Nipissing sills. The Cobalt group was deposited between 2200 and 2450 Ma, and unconformably overlies the Lower Huronian Quirke Lake and Hough Lake Groups (Ontario Geological Survey, 1991). Metamorphic facies in the Huronian Supergroup in this area is subgreenschist facies with diagenetic and epigenetic zones, near a metamorphic facies boundary with low to middle greenschist facies with chlorite and biotite zones. Nipissing sills are 2219 Ma diabase sills, dykes and related granophyres that cover a large part of the Lake Temagami area (Ontario Geological Survey, 1991).

Outliers of the Temagami Greenstone Belt, such as that at Emerald Lake, are several and not well understood. They have alternatively been hypothesized as ancient topographic hills and as small blocks upfaulted through the thick Huronian sedimentary succession; their origin remains unknown (pers. comm. between K. Ferriera/W. Meyer).

The shaded total field magnetic map of the area shows a prominent ovoid magnetic anomaly directly to the northeast of the Sudbury magnetic anomaly (Gupta, 1991). This other prominent anomaly is similar in size and shape to the Sudbury structure, and mimics the Sudbury structure in its magnetic characteristics; it has plan dimensions of approximately 60 km x 20 km. This second anomaly is known as the Wanapitei structure, and a hypothesis of a magnetically responsive intrusion at depth is not supported by gravity data (pers. comm. Between K.Ferriera, Canmine Resources Corporation/W. Meyer, Ontario Geological Survey). The Wanapitei anomaly is too large, too regional, and too poorly understood to bear a direct cause-effect relationship with the Emerald Lake cobalt

occurrence. It is, however, undoubtedly a magnetically prominent structure that is the subject of some scientific and exploration interest because of its similarities with the Sudbury structure.

Most of the Afton Township area consists of Precambrian bedrock either exposed or with only a discontinuous, thin layer of glacial drift (Barnett *et al.*, 1991).

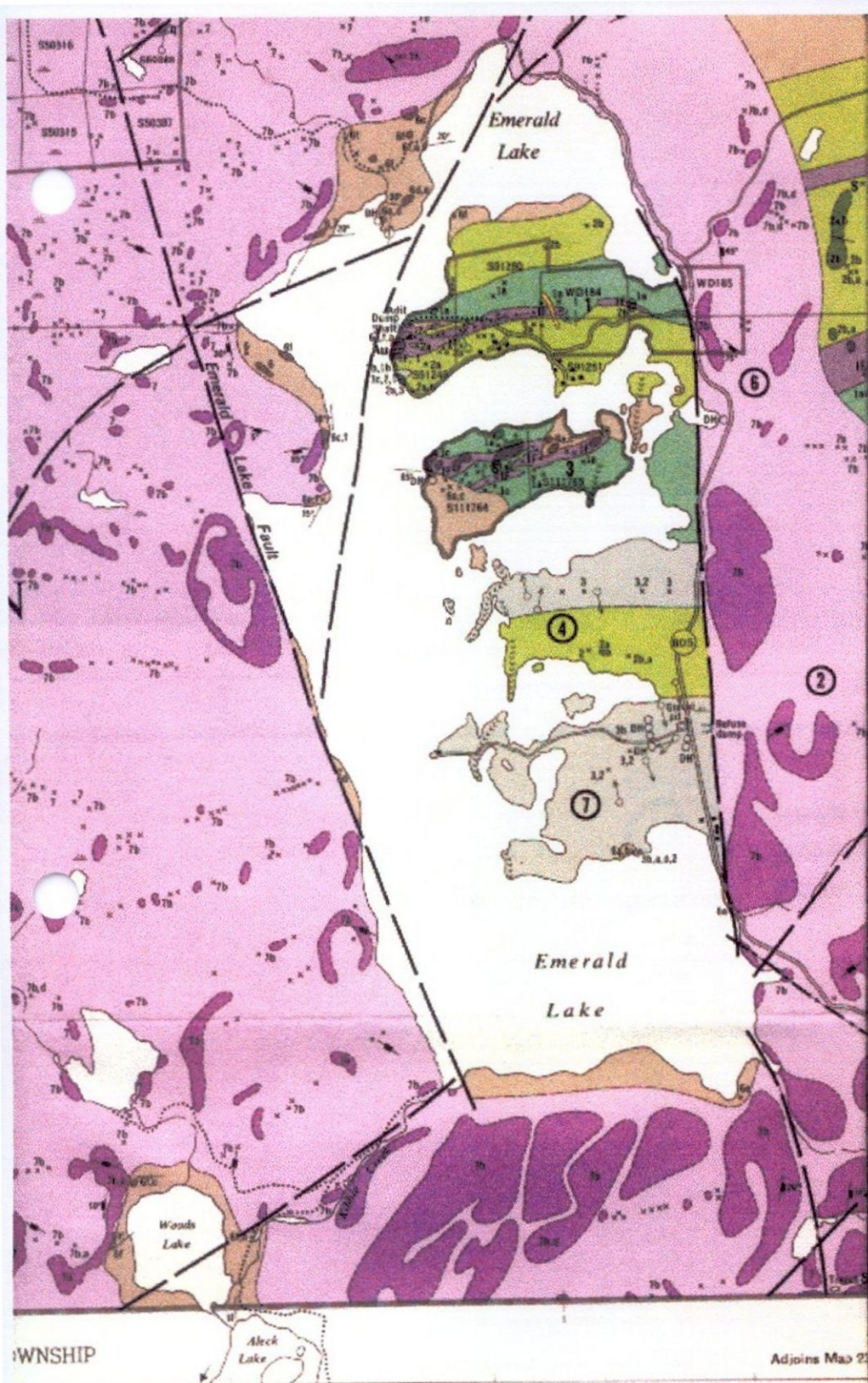
In the Emerald Lake area, historically known mineralization includes the New Golden Rose Gold Mine, located at the extreme western point of the northernmost peninsula on the east side of Emerald Lake. The New Golden Rose Mine produced 43,359 ounces of gold and 8,296 ounces of silver from 145,589 tons of ore from 1937 to 1941. Gold is associated with pyritized oxide-facies iron formation at this deposit. The iron formation is folded, faulted and brecciated in the vicinity of the former mine (Meyn, 1977).

Property Geology

The geology of the area is reproduced in Figure 4, part of a map by H.D. Meyn of the Ontario Geological Survey (1997). The description of the property geology is summarized from O.G.S. Report 170 by Meyn (1997).

The Emerald Lake cobalt-copper prospect is hosted by metasedimentary and felsic to intermediate metavolcanic rocks. Argillaceous metasediments occur in the vicinity of the old trenches. Archean limestone has been identified at the southernmost part of the peninsula that contains the Emerald Lake cobalt-copper prospect. Rhyolite, dacite, quartz and feldspar porphyry and felsic pyroclastic rocks occur to the north of the trenches and old drill holes. Thick beds of oxide-facies and sulphide-facies iron formation, mafic to intermediate metavolcanic rocks, and minor rocks of Huronian Gowganda sedimentary formation are present on other peninsulas and islands in Emerald Lake (Meyn, 1977).

The archean rocks are inferred to be mostly in intrusive contact, although fault contacts occur, with extensive two-pyroxene gabbro of the younger Nipissing Diabase Intrusions. Granophyric and pegmatitic phases resulted from late-stage deuteritic alteration (Meyn, 1977).



LEGEND

PHANEROZOIC

CENOZOIC^a

QUATERNARY

RECENT

Fluvial gravel, sand, silt, clay, and swamp deposits.

PLEISTOCENE

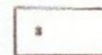
Clay, sand, gravel, and till.

UNCONFORMITY

PRECAMBRIAN^b

LATE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS^c



3a Diabase.
3b Olivine diabase.

INTRUSIVE CONTACT

MIDDLE PRECAMBRIAN

MAFIC INTRUSIVE ROCKS

NIPISSING DIABASE



7 Unsubdivided.
7a Diabase.
7b Gabbro
7c Felsite.
7d Pegmatitic diorite.

INTRUSIVE CONTACT

HURONIAN SUPERGROUP

COBALT GROUP

GOWGANDA FORMATION

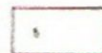


8 Unsubdivided.
8a Paraconglomerate.
8b Orthoconglomerate.
8c Mudstone, siltstone.
8d Laminated mudstone, laminated siltstone.
8e Pebbly mudstone, pebbly sandstone.
8f Greywacke, sandstone, grit.
8g Arkose.

CONFORMABLE CONTACT, FAULTING

HOUGH LAKE GROUP

MISSISSAGI FORMATION^d



5 Unsubdivided.
5a Orthoconglomerate.
5b Greywacke, quartzite, arkose.
5c Mudstone, siltstone.

UNCONFORMITY

EARLY PRECAMBRIAN

MAFIC INTRUSIVE ROCKS



4 Metadiabase, diabase.

INTRUSIVE CONTACT

METAVOLCANICS AND METASEDIMENTS

METASEDIMENTS



3 Unsubdivided.
3a Greywacke, quartzite.
3b Argillaceous metasediments.
3c Conglomerate.^e
3d Limestone.

FELSIC TO INTERMEDIATE METAVOLCANICS



2 Unsubdivided.
2a Rhyolite, dacite, quartz and feldspar porphyry.
2b Pyroclastic rocks.

MAFIC TO INTERMEDIATE METAVOLCANICS



1 Unsubdivided.
1a Flows.
1b Schist.
1c Pyroclastic rocks.
1d Metagabbro, metadiabase, metadiorite.



1F Iron Formation.

Figure 4: Geology of Emerald Lake area (Meyn, O.G.S. 1977).

Archean limestone skarn has been mapped approximately 2.25 km to the south of Emerald Lake at "Iron Mountain" at the north end of Manitou Lake. This skarn assemblage consists of tremolite-actinolite-diopside, andradite garnet, and antigorite (Meyn, 1977).

Drill core intersected by the "WA-" holes drilled by Wabico Mines, Limited included siliceous and cherty "greenstone"; diabase, part with quartz-feldspar veinlets; brecciated diabase; breccia (described in parts of the drill logs as "mineralized breccia" or "ore breccia"), parts with carbonate, notably cerussite; banded and brecciated argillite; quartzitic lenses; greywacke; sandstone; and slate. In the area west of hole WA-3, trenches prospected yielded graphitic schist that occurs parallel to the local east-west trend.

Work Done

11 days were spent mapping and prospecting on these three contiguous claims. This work was carried out by Kevin G. Murphy of Canmine Resources Corporation's Winnipeg office. On claims 1184526 (Fig. 5) and 1184527 (Fig.6) the claim boundaries and internal traverses spaced 100 meters apart were mapped to provide a base map for prospecting and sampling. Prospecting activity consisted of intense scrutiny of all available outcrop in an attempt to locate sulphide mineralization. Samples were taken where appropriate.

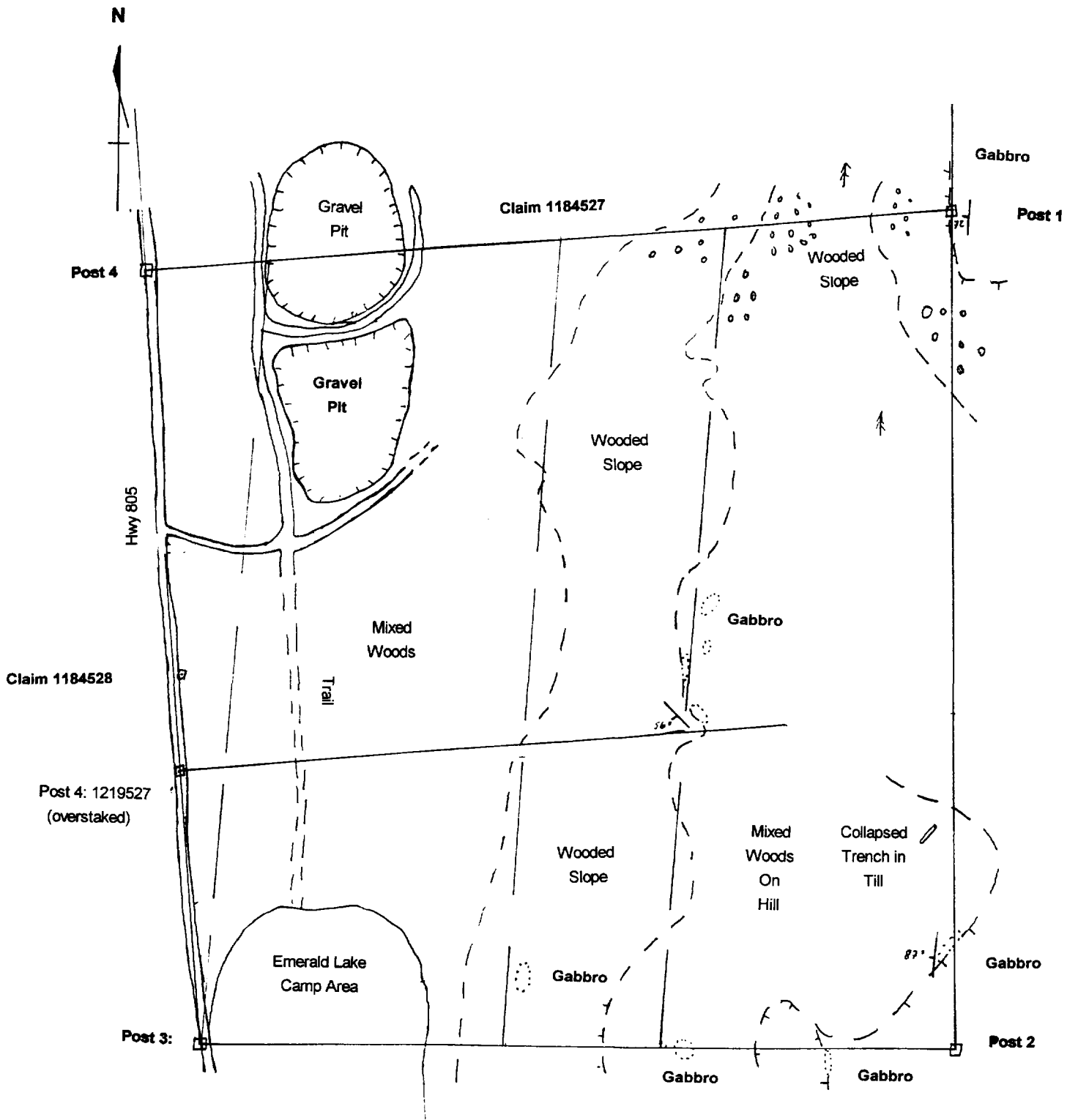
While traversing the claim lines, old blazes were freshened up and new ones added to maintain the integrity of the claim boundaries. Claim post locations were more precisely located using a GPS, and are recorded on the accompanying maps.

On claim 1184528 (Fig. 7) short traverses were run at 50 meter intervals in the vicinity of known trenches to accurately locate and map them. Detailed sketches of the trenches were made with sample locations noted. Trench locations were more precisely located using a GPS and are recorded on the accompanying maps.

Historically several holes were drilled on the claims and attempts were made to locate these drill hole locations.

Results of Work Done

The area in general is strongly till covered with limited outcrop available for detailed scrutiny. On claims 1184526-27 most of the claim area is covered with mixed woods on till. The eastern sides of these claims somewhat parallel a north trending and near vertical dipping fault. The exposed cliffs are comprised exclusively of fine to medium grained gabbro. A wooded bouldery slope dips off to the west. Detailed investigation of both the uplifted faulted gabbro and boulders on the western slope of the fault yielded no discernable sulphides on fresh surface. Attempts were made to locate sulphides in the till and wooded overburden with the same results.



Claim 1184526

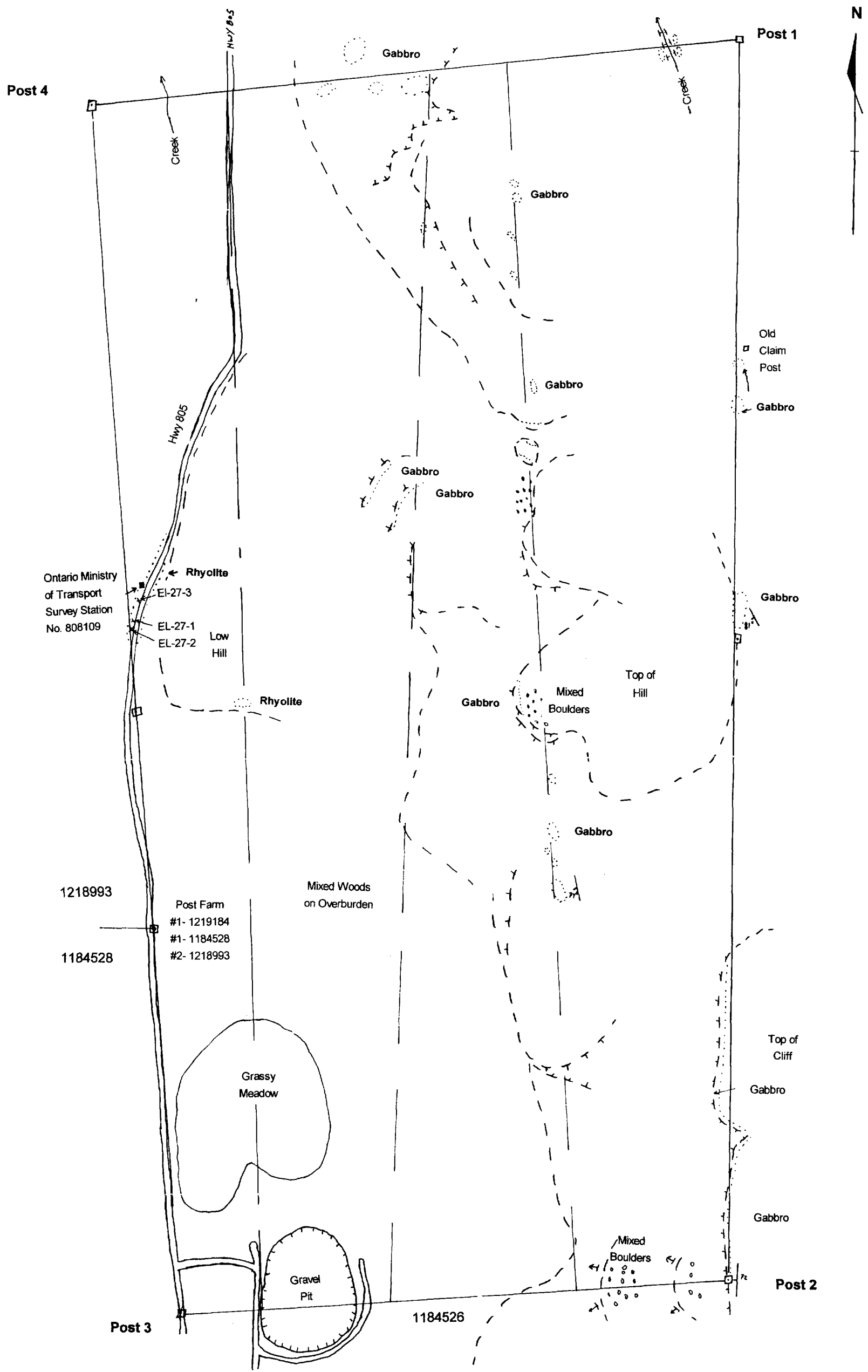
- Post 1:** N 46 Degrees 54.586 Minutes
W 80 Degrees 18.025 Minutes
- Post 2:** N 46 Degrees 54.596 Minutes
W 80 Degrees 17.958 Minutes
- Post 3:** N 46 Degrees 54.438 Minutes
W 80 Degrees 18.182 Minutes
- Post 4:** N 46 Degrees 54.585 Minutes
W 80 Degrees 18.298 Minutes



Scale: 1 Cm = 25 m

- Outline of outcrop
- Strike and dip
- Contour of Hill or slope
- Direction of slope
- Claim post
- Boulders
- Swamp
- * EL-24-1 Sample location
- Traverse lines

Figure 5. Clm. 1184525 Geology Map



Post 1: N 46 Degrees 55.044 Minutes
 W 80 Degrees 17.922 Minutes

I Post: N 46 Degrees 54.821 Minutes
 W 80 Degrees 17.904 Minutes

Post 2: N 46 Degrees 54.596 Minutes
 W 80 Degrees 18.035 Minutes

Post 3: N 46 Degrees 54.585 Minutes
 W 80 Degrees 18.298 Minutes

I Post: N 46 Degrees 54.834 Minutes
 W 80 Degrees 18.289 Minutes

Post 4: N 46 Degrees 55.023 Minutes
 W 80 Degrees 18.312 Minutes

Claim No 1184527



Scale: 1 Cm = 25 m

- Outline of outcrop
- Strike and dip
- Contour of Hill or slope
- Direction of slope
- Claim post
- Boulders
- Swamp
- * EL-24-1 Sample location
- Traverse lines

Figure 6: Clm. 1184527 Geology Map

On the west side of claim 1184527 along Highway 805 some lightly mineralized rhyolitic outcrop was located. Trace pyrite and chalcopyrite were visible in grab samples. Attempts were made to trace this lithology to the east but was soon lost in overburden. Three samples were taken in this area. Sample EL-27-1 yielded an anomalous copper value of 0.15%.

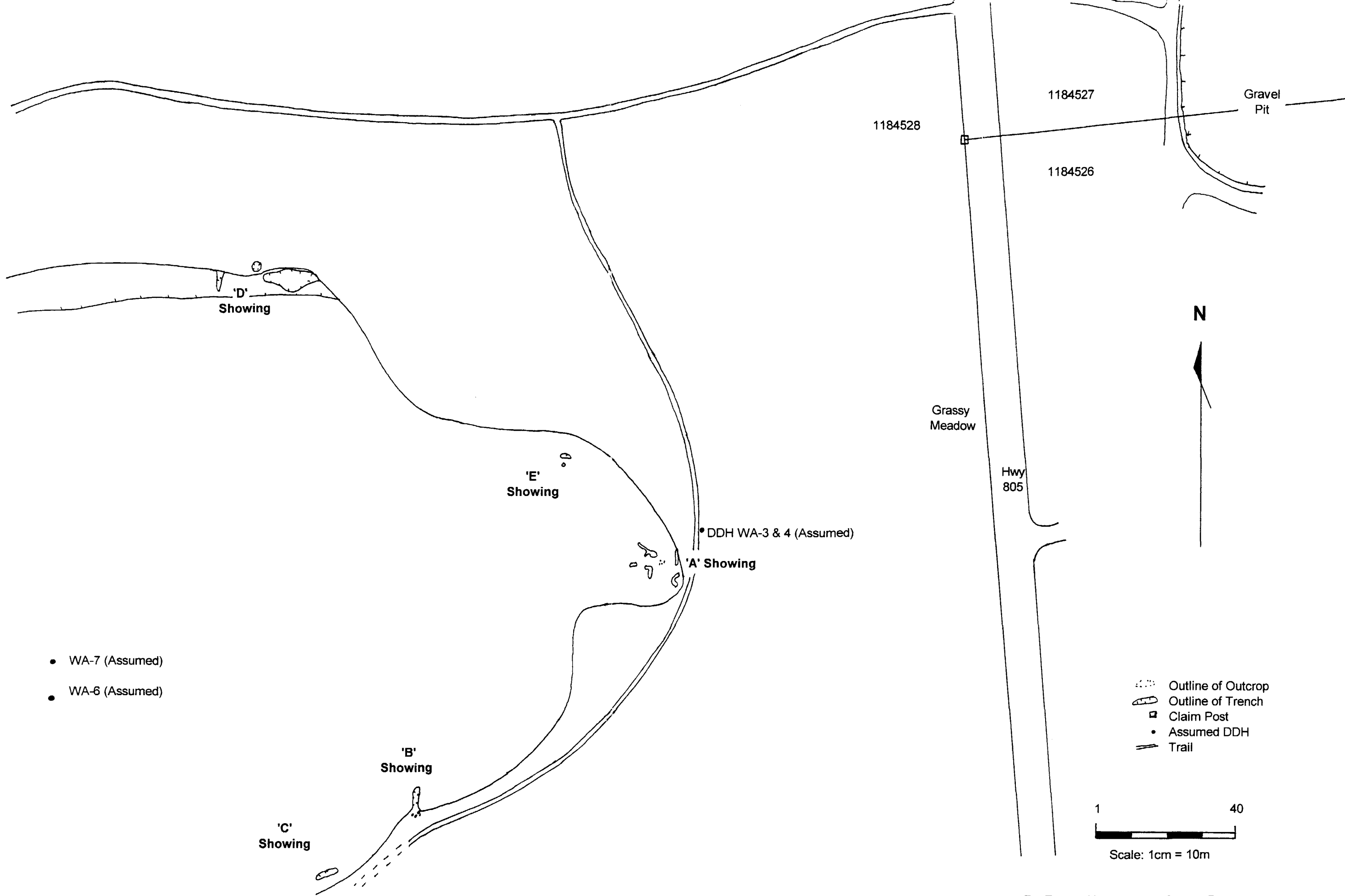
The Emerald Lake Cobalt-Copper Prospect occurs on claim 1184528 proper. A number of small trenches were found to occur on this claim (Fig. 7), most notably on the cobalt showing (Fig. 8) at the eastern margin of an east-west trending wooded rise. Some of these trenches located on outcrop were mucked out and limited tree cover removed to gain access to the outcrop. Overburden trenches were not mucked out but the locations were noted. A rusted length of drill collar was found on the trail adjacent to the showing roughly in the area where holes WA-3 and WA-4 are believed to have been situated. An attempt was made to locate drill collars in the overburden by digging with a shovel to no avail. The most easterly of the cobalt showing trenches was found to contain erythrite (cobalt bloom) and up to 5% pyrite. The outcrop exposed in the trenches is strongly weathered and rusty, as is the extensive shot rock in the vicinity of the trenches. Up to 40% pyrite and visible erythrite was noted in some shot rock. Rhyolite is the predominant lithology represented in the trenches, with one trench to the west appearing to cut greywacke. The extensive weathering makes for difficult lithologic determination.

Four samples were taken at the cobalt showing proper. Sample EL-28-1 yielded 0.13% cobalt and 0.01 oz/t gold. Sample EL-28-3 yielded 0.44% cobalt and 0.07 oz/t silver. Sample EL-28-4, a shot rock sample containing 40% sulphides yielded 0.25% copper, 0.05% nickel, and 0.07 oz/t silver.

Showing 'B' (Fig. 9) and 'C' (Fig. 10) are located to the south-west of showing 'A', on the south flank of the wooded rise. Three samples numbered EL-28-5 to EL-28-7 were taken in the showing 'B' trench. The exposed rock is very deeply weathered, but was found to contain up to 10% pyrite. No significant assays were returned in this trench. The showing 'C' trench further to the southwest of trench 'B' also contained significant pyritization. Two samples numbered EL-28-8 to EL-28-9 were taken but returned no significant assays.

Showing 'D' (fig.11) is located on the northern flank of the wooded rise, due north of showing 'C'. This showing consists of two trenches. The more easterly of the two is of a significant size and is again deeply weathered. The units cut by the trenching consist of weathered rhyolite and a graphitic schist. Up to 10% coarse grained pyrite occurs in the large trench. Three samples were taken here numbered EL-28-10 to EL-28-12, and Samples EL-28-10 and EL-28-11 returned 0.14% zinc and 0.06% zinc respectively. Samples were taken from both shot rock (EL-28-13 and EL-28-14) and the small western trench (EL-28-15) but encountered no significant assays.

The 'E' (Fig.12) showing trench is located between the 'A' and 'D' trenches on the northeast flank of the wooded rise. The trenching cut a rusty andesitic unit containing 1% disseminated pyrite. Sample EL-28-16 returned no significant assays.



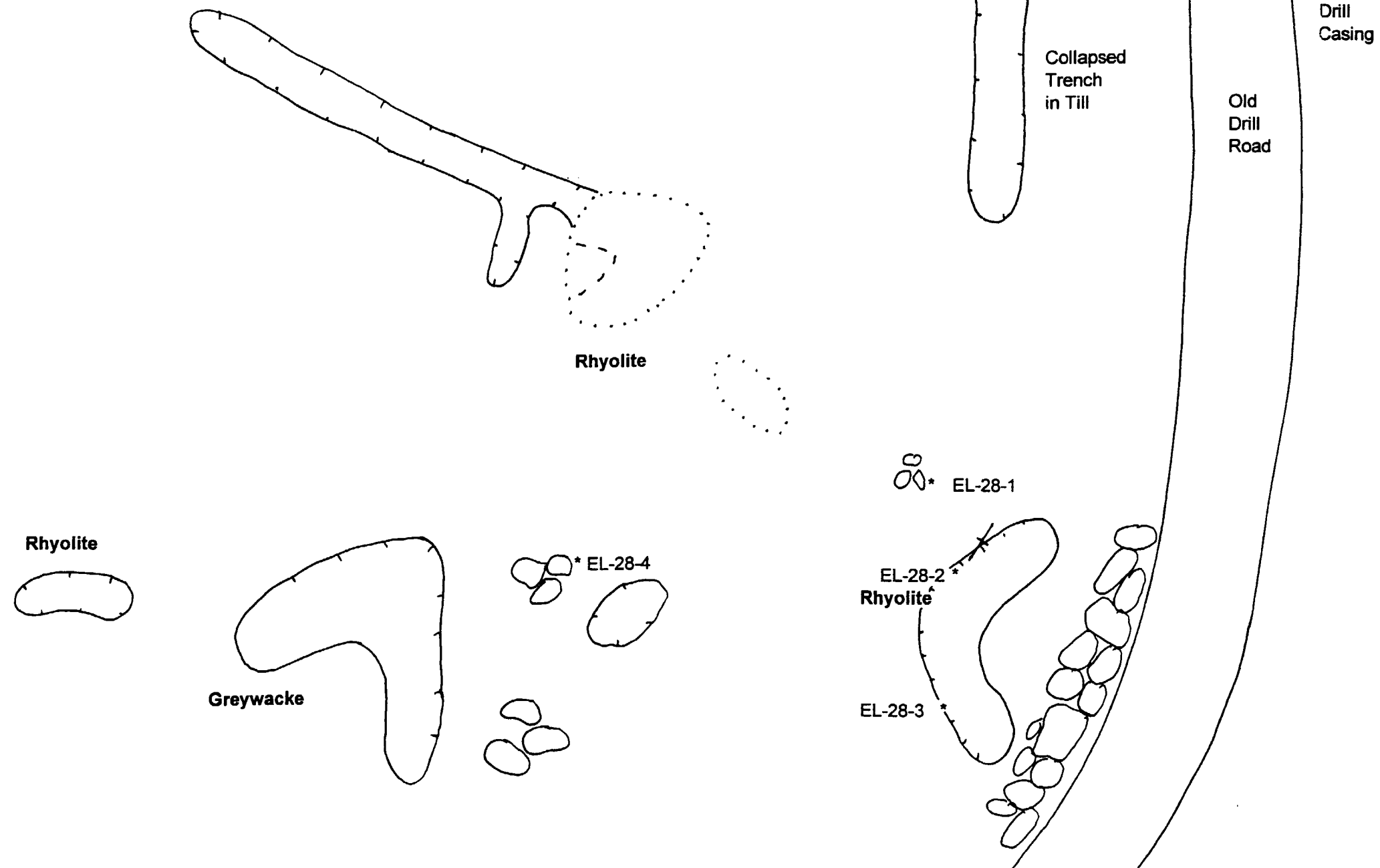
- WA-7 (Assumed)
- WA-6 (Assumed)

- ⋯ Outline of Outcrop
- ⊂ Outline of Trench
- Claim Post
- Assumed DDH
- Trail

1 40
 Scale: 1cm = 10m

Figure 7: Emerald Lake Cobalt-Copper Prospect

'A' Showing Trenches

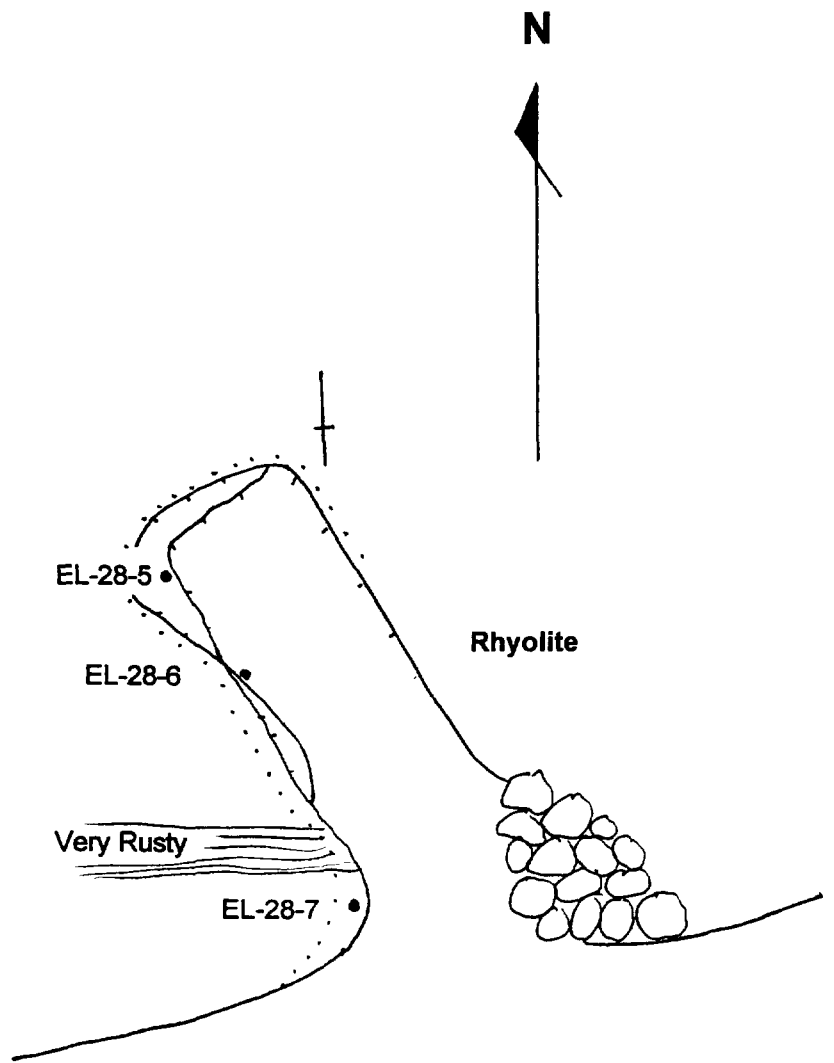


GPS Co-ordinates:
N 46 Degrees 54.526 Minutes
W 80 Degrees 18.331 Minutes

- Outline of Outcrop
- Strike and Dip
- Outline of Trench
- Shot rock Piles

1 4
Scale: 1cm = 1m

Figure 8: Emerald Lake Cobalt-Copper Prospect



GPS Co-ordinates:
 N 46 Degrees 54.475 Minutes
 W 80 Degrees 18.317 Minutes

- ⋯ Outline of Outcrop
- Strike and Dip
- ⌒ Outline of Trench
- Shot rock Piles
- Sample Locations

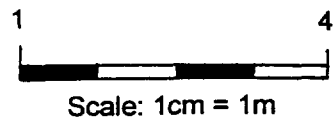


Figure 9: Trench 'B' Emerald Lake Cobalt-Copper Prospect

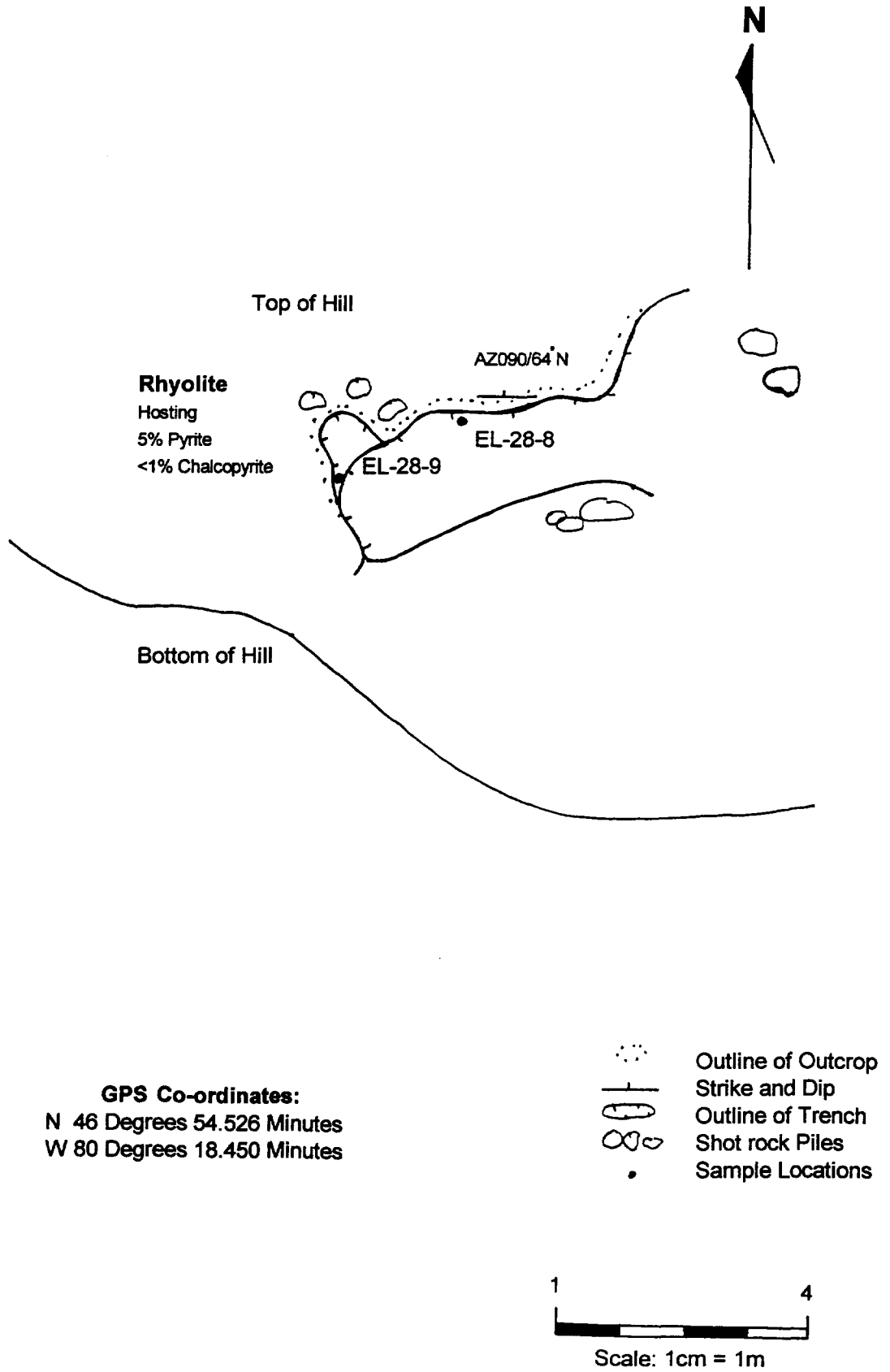
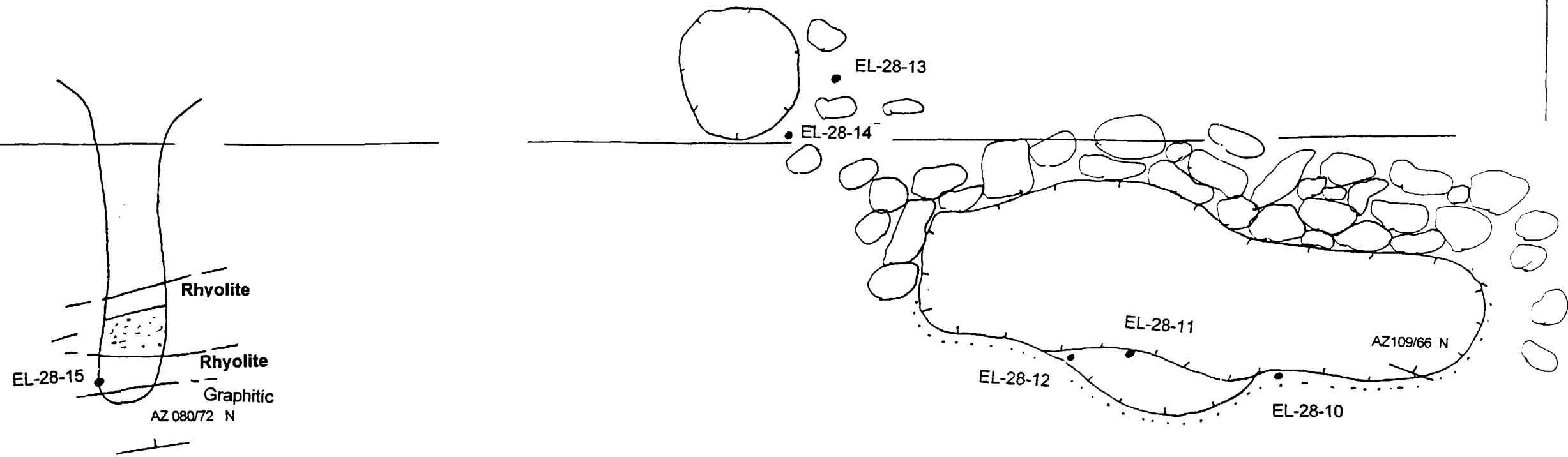


Figure 10: 'C' Trench Emerald Lake Cobalt-Copper Prospect

N



GPS Co-ordinates:
 N 46 Degrees 54.587 Minutes
 W 80 Degrees 18.439 Minutes

- ⋯ Outline of Outcrop
- Strike and Dip
- Outline of Trench
- ⊗ Shot rock Piles
- Sample Locations



Scale: 1cm = 1m

Figure 11: 'D' Trench Emerald Lake Cobalt-Copper Prospect

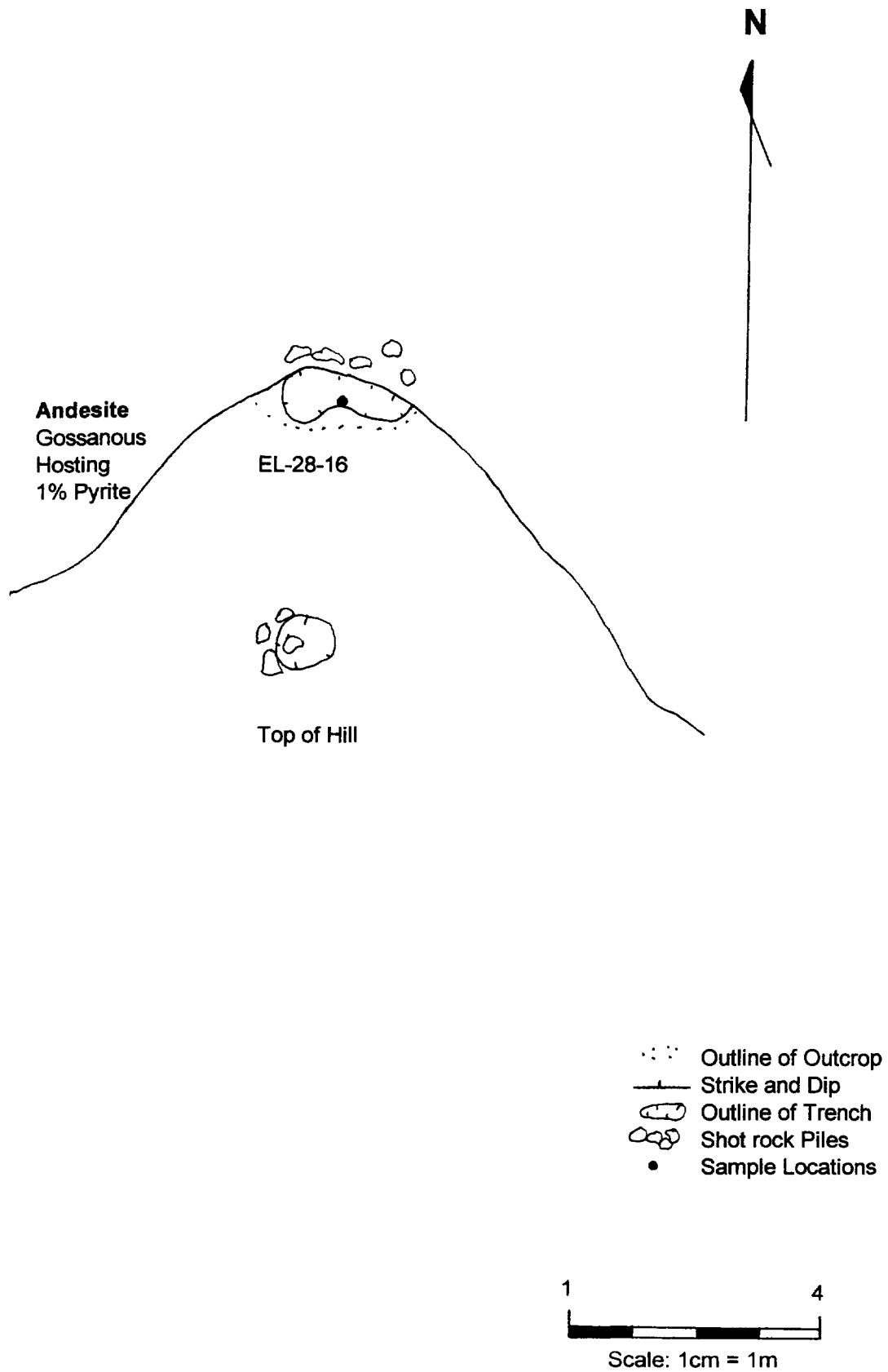


Figure 12: 'E' Trench Emerald Lake Cobalt-Copper Prospect

Attempts were made to locate holes WA-1, WA-6 and WA-7 based on the location of showing 'A' and the rusted drill collar found in the area. Compass and chaining was used to try and locate these two holes, but no collars were located. There is evidence of past logging in the area which may have destroyed the collars.

Recommendations

While there is some outcrop exposed on the property, much of the area is overlain by a covering of till. Historically geophysics has been used to locate potential drill targets. It is this approach that is recommended. A grid should be cut over the property at 50 meter line spacings and a magnetometer survey be conducted to locate targets for drilling.

Holes WA-3 and WA-4 drilled by Wabico Mines Limited in 1956 on the cobalt showing encountered significant cobalt assays. As current sampling also implies significant cobalt mineralization these holes should be redrilled on this showing.

References

Meyn, H.D., 1977. Geology of Afton, Scholes, Macbeth, and Clement Townships, Districts of Sudbury and Nipissing; Ontario Geological Survey Report 170, 77p.

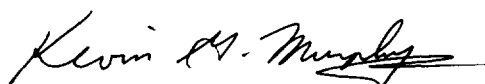
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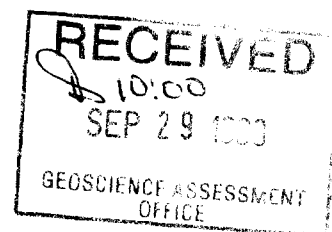
Ontario Geological Survey, 1991. Bedrock geology of Ontario, east-central sheet; Ontario Geological Survey, Map 2543, scale 1:1 000 000.

Ontario Geological Survey, 1992. Chart 3 – Proterozoic tectonic assemblages, plutonic suites and events in Ontario; Ontario Geological Survey, Map 2581.

Respectfully Submitted



Kevin G. Murphy, B.A., B.Sc.



Attempts were made to locate holes WA-1, WA-6 and WA-7 based on the location of showing 'A' and the rusted drill collar found in the area. Compass and chaining was used to try and locate these two holes, but no collars were located. There is evidence of past logging in the area which may have destroyed the collars.

Recommendations

While there is some outcrop exposed on the property, much of the area is overlain by a covering of till. Historically geophysics has been used to locate potential drill targets. It is this approach that is recommended. A grid should be cut over the property at 50 meter line spacings and a magnetometer survey be conducted to locate targets for drilling.

Holes WA-3 and WA-4 drilled by Wabico Mines Limited in 1956 on the cobalt showing encountered significant cobalt assays. As current sampling also implies significant cobalt mineralization these holes should be redrilled on this showing.

References

Meyn, H.D., 1977. Geology of Afton, Scholes, Macbeth, and Clement Townships, Districts of Sudbury and Nipissing; Ontario Geological Survey Report 170, 77p.

Gupta, V.K., 1991. Shaded image of total magnetic field of Ontario, east-central sheet; Ontario Geological Survey, Map 2586, scale 1:1 000 000.

Jackson, S.L. and Fyon, J.A., 1991. The Western Abitibi Subprovince in Ontario; *in* Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 1, p. 405-484.

Ontario Geological Survey, 1991. Bedrock geology of Ontario, east-central sheet; Ontario Geological Survey, Map 2543, scale 1:1 000 000.

Ontario Geological Survey, 1992. Chart 3 – Proterozoic tectonic assemblages, plutonic suites and events in Ontario; Ontario Geological Survey, Map 2581.

Respectfully Submitted

Kevin G. Murphy, B.A., B.Sc.

Appendix I

Statement of costs

Statement of Costs and Expenditures (Pro-rated)

Mapping and Prospecting

Gasoline within Ontario (\$431.79 x 0.75)	\$323.84
Food/Meals within Ontario (\$169.91 x 0.75)	\$127.43
Hotels while in transit in Ontario (\$230.97 x 0.75)	\$173.23
Emerald Lake Camp (15 days @ \$63.16 per day)	\$947.37
Photocopies/ Govt. Reports (\$35.39 x 0.75)	\$26.54
Sample Shipping from Ontario	\$48.90
Sample Assays	\$919.12
Geological Services (mapping, prospecting, report preparation)	<u>\$4400.00</u>
Total	\$6966.43
TOTAL EXPENDITURES FOR WORK DETAILED IN THIS REPORT	\$6966.43

I hereby certify that the foregoing represent expenditures that were made by Canmine Resources Corporation for mineral exploration on claims 1184526-28 inclusive detailed in the foregoing report.



William S. Ferreira
Senior Geologist

Dated September 22, 1998 at Winnipeg, Manitoba

Appendix II

Assays

2020

Assays:

Sample No.	Au oz/t	Ag oz/t	Cu %	Pb %	Zn %	Ni %	Co %	Pt oz/t	Pd oz/t
EL-27-1	<0.001	<0.05	0.15	<0.01	<0.01	<0.01	0.01	<0.0006	<0.0003
EL-27-2	<0.001	<0.05	0.03	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-27-3	<0.001	<0.05	0.02	<0.01	0.01	0.01	<0.01	<0.0006	<0.0003
EL-28-1	0.01	<0.05	<0.01	<0.01	0.01	0.02	0.13	<0.0006	<0.0003
EL-28-2	<0.001	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-3	0.001	0.07	0.01	<0.01	0.01	0.05	0.44	<0.0006	<0.0003
EL-28-4	<0.001	0.07	0.25	<0.01	0.01	0.05	0.02	<0.0006	<0.0003
EL-28-5	<0.001	<0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-6	<0.001	<0.05	0.01	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-7	<0.001	<0.05	0.01	<0.01	0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-8	<0.001	<0.05	0.01	0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-9	<0.001	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-10	<0.001	<0.05	0.01	<0.01	0.14	<0.01	<0.01	<0.0006	<0.0003
EL-28-11	<0.001	<0.05	0.02	<0.01	0.06	0.01	<0.01	<0.0006	<0.0003
EL-28-12	<0.001	<0.05	0.02	<0.01	0.01	0.01	0.01	<0.0006	<0.0003
EL-28-13	<0.001	<0.05	<0.01	<0.01	0.02	<0.01	<0.01	<0.0006	<0.0003
EL-28-14	<0.001	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-15	<0.001	<0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.0006	<0.0003
EL-28-16	<0.001	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.0006	<0.0003

201000



T S L LABORATORIES

DIVISION OF TASSAYERS INC.

2 - 302 - 48th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4

☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Canmine Resources Corporation
200 - 5 Donald Street
Winnipeg, Manitoba
R3L 2T4

REPORT No.
S7914

SAMPLE(S) OF Grab Rock

INVOICE #: 31873
P.O.:

K. Murphy
Project: Temagami

2.18895

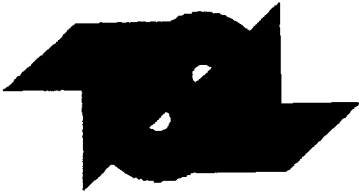
Sample EL-28-4 was not received

	Au ozt	Ag ozt	Cu %	Pb %	Zn %	Ni %	Co %	Pt ozt	Pd ozt
EL-24-1	<.001	<.05	.02	<.01	.01	.01	<.01	<.0006	<.0003
EL-27-1	<.001	<.05	.15	<.01	<.01	<.01	.01	<.0006	<.0003
EL-27-2	<.001	<.05	.03	<.01	<.01	<.01	<.01	<.0006	<.0003
EL-27-3	<.001/<.001	<.05	.02	<.01	.01	.01	<.01	<.0006	<.0003
EL-28-1	.011/.010	<.05	<.01	<.01	.01	.02	.13	<.0006	<.0003
EL-28-2	<.001	<.05	<.01	<.01	<.01	<.01	<.01	<.0006	<.0003
EL-28-3	.001	.07	.01	<.01	.01	.05	.44	<.0006	<.0003
EL-28-5	<.001	<.05	<.01	<.01	.01	<.01	<.01	<.0006	<.0003
EL-28-6	<.001/<.001	<.05	.01	<.01	<.01	<.01	<.01	<.0006	<.0003
EL-28-7	<.001	<.05	.01	<.01	.01	<.01	<.01	<.0006	<.0003
EL-28-8	<.001	<.05	.01	.01	<.01	<.01	<.01	<.0006	<.0003
EL-28-9	<.001	<.05	.02	<.01	<.01	<.01	<.01	<.0006	<.0003

COPIES TO: W. Ferreira, T. Ellwood
INVOICE TO: Canmine Resources - Winnipeg

Sep 15/98

SIGNED _____



T S L LABORATORIES

DIVISION OF TSL/ASSAYERS INC.

2 - 302 - 48th STREET,
SASKATOON, SASKATCHEWAN
S7K 6A4

☎ (306) 931-1033 FAX: (306) 242-4717

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Canmine Resources Corporation
200 - 5 Donald Street
Winnipeg, Manitoba
R3L 2T4

REPORT No.
S7931

SAMPLE(S) OF Grab

INVOICE #: 31891
P.O.:

K. Murphy
Project: Temagami

2.1 01

	Au ozt	Ag ozt	Cu %	Pb %	Zn %	Ni %	Co %	Pt ozt	Pd ozt
EL-28-4	<.001	.07	.25	<.01	.01	.05	.02	<.0006	<.0003
EL-28-10	<.001	<.05	.01	<.01	.14	<.01	<.01	<.0006	<.0003
EL-28-11	<.001	<.05	.02	<.01	.06	.01	<.01	<.0006	<.0003
EL-28-12	<.001	<.05	.02	<.01	.01	.01	.01	<.0006	<.0003
EL-28-13	<.001	<.05	<.01	<.01	.02	<.01	<.01	<.0006	<.0003
EL-28-14	<.001	<.05	<.01	<.01	<.01	<.01	<.01	<.0006	<.0003
EL-28-15	<.001	<.05	<.01	<.01	.01	<.01	<.01	<.0006	<.0003
EL-28-16	<.001	<.05	.02	<.01	<.01	<.01	<.01	<.0006	<.0003

COPIES TO: W. Ferreira, T. Ellwood
INVOICE TO: Canmine Resources - Winnipeg

Sep 16/98

SIGNED _____



Declaration of Assessment Work Performed on Mining Land

Mining Act Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W9870.00546 Assessment Files Research Imaging



41I16NW2004 2.18895 AFTON

900

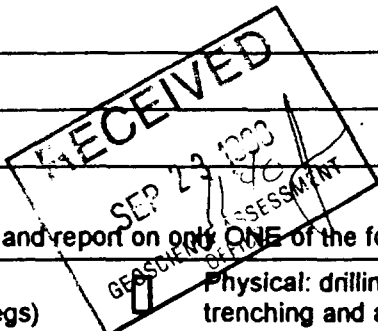
Sections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this report work and correspond with the mining land holder. Questions about this collection should be directed to the Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240. - Please type or print in ink.

2.18895

1. Recorded holder(s) (Attach a list if necessary)

Name: WILLIAM SCANLON FERREIRA, Client Number: 131531, Address: 200-5 DONALD ST. WINNIPEG, MAN, R3L 2T4, Telephone Number: (204) 477-0695



2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs) [checked], Physical: drilling stripping, trenching and associated assays [unchecked], Rehabilitation [unchecked]. Work Type: PROSPECTING, MAPPING, SAMPLING. Dates Work Performed: 29 08 98 To 11 09 98. Township/Area: AFTON, M or G-Plan Number: G-290. Mining Division: Sudbury, Resident Geologist: Sudbury.

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; - provide proper notice to surface rights holders before starting work; - complete and attach a Statement of Costs, form 0212; - provide a map showing contiguous mining lands that are linked for assigning work; - include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: KEVIN G. MURPHY, Telephone Number: (204) 222-8166, Address: 101 ST. MARTIN BLVD, WPG, MAN, R2L 0Y8

4. Certification by Recorded Holder or Agent

WILLIAM S. FERREIRA, do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [Signature], Date: SEPT 22, 1998, Agent's Address: TEO ELLWOOD, SUITE 1605, 275 DUNDAS ST., LONDON, ONT. (519) 858-4000, Telephone Number: (204) 477-0695, Fax Number: 1-(204) 204-0130

Dated December 22/98

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9870.00546

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	18895	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 S1184526	/	\$6966.43	\$1,200.00	\$5,600	\$166.43
2 S1184527	/		\$2,400.00	4,400	
3 S1184528	/		\$3,200.00	3,600	
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
Column Totals					

RECEIVED
 SEP 23 1998 11:10 AM
 GEOSCIENCE ASSESSMENT
 OFFICE

I, WILLIAM S. FERREIRA, do hereby certify that the above work credits are eligible under subsection 7 (J) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: [Signature] Date: Sept 22, 1998

6. Instructions for cutting back credits that are not approved.

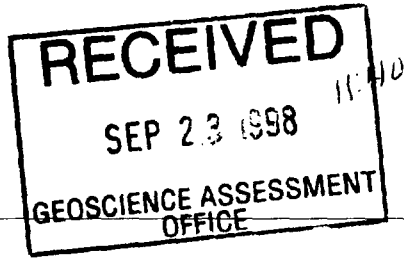
Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):
From S 1184526

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)		

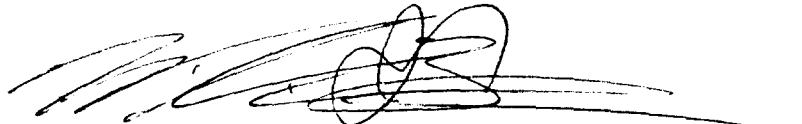


W9870.00546

Statement of Costs and Expenditures (Pro-rated)

Mapping and Prospecting	2.18895
Gasoline within Ontario (\$431.79 x 0.75)	\$323.84
Food/Meals within Ontario (\$169.91 x 0.75)	\$127.43
Hotels while in transit in Ontario (\$230.97 x 0.75)	\$173.23
Emerald Lake Camp (15 days @ \$63.16 per day)	\$947.37
Photocopies/ Govt. Reports (\$35.39 x 0.75)	\$26.54
Sample Shipping from Ontario	\$48.90
Sample Assays	\$919.12
Geological Services (mapping, prospecting, report preparation)	<u>\$4400.00</u>
	Total \$6966.43
TOTAL EXPENDITURES FOR WORK DETAILED IN THIS REPORT	\$6966.43

I hereby certify that the foregoing represent expenditures that were made by Canmine Resources Corporation for mineral exploration on claims 1184526-28 inclusive detailed in the foregoing report.



William S. Ferreira
Senior Geologist

Dated September 22, 1998 at Winnipeg, Manitoba

LONDON	275 Dundas Street, Suite 1605, London, Ontario N6B 3L1 Ph: (519) 858-4000 Fax: (519) 858-4825
MONTREAL	3431 Drummond Street, Suite 200, Montreal, Quebec H3G 1X6 Ph: (514) 953-1584 Fax: (514) 695-4323
WINNIPEG	5 Donald Street, Suite 200, Winnipeg, Manitoba R3L 2T4 Ph: (204) 477-0695 Fax: (204) 284-0130
LAC DU BONNET	36B McArthur Avenue, P.O. Box 1349, Lac Du Bonnet, Manitoba R0E 1A0 Ph: (204) 345-1922 Fax: (204) 345-2092

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9846
Fax: (877) 670-1555

November 5, 1998

WILLIAM SCANLON FERREIRA
91 LAKESHORE ROAD
WINNIPEG, MANITOBA
R3T-4A7

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.18895

Status

Subject: Transaction Number(s): W9870.00546 Deemed Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at benetest@epo.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.18895

Date Correspondence Sent: November 05, 1998

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9870.00546	1184526	AFTON	Deemed Approval	October 30, 1998

Section:

12 Geological GEOL

Please note, assessment work credit has been redistributed, as outlined on the attached Distribution of Assessment Work Credit sheet, to better reflect the location of the work.

Correspondence to:

Resident Geologist
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

WILLIAM SCANLON FERREIRA
WINNIPEG, MANITOBA

Assessment Files Library
Sudbury, ON

Distribution of Assessment Work Credit

The following credit distribution reflects the value of assessment work performed on the mining land(s).

Date: November 05, 1998

Submission Number: 2.18895

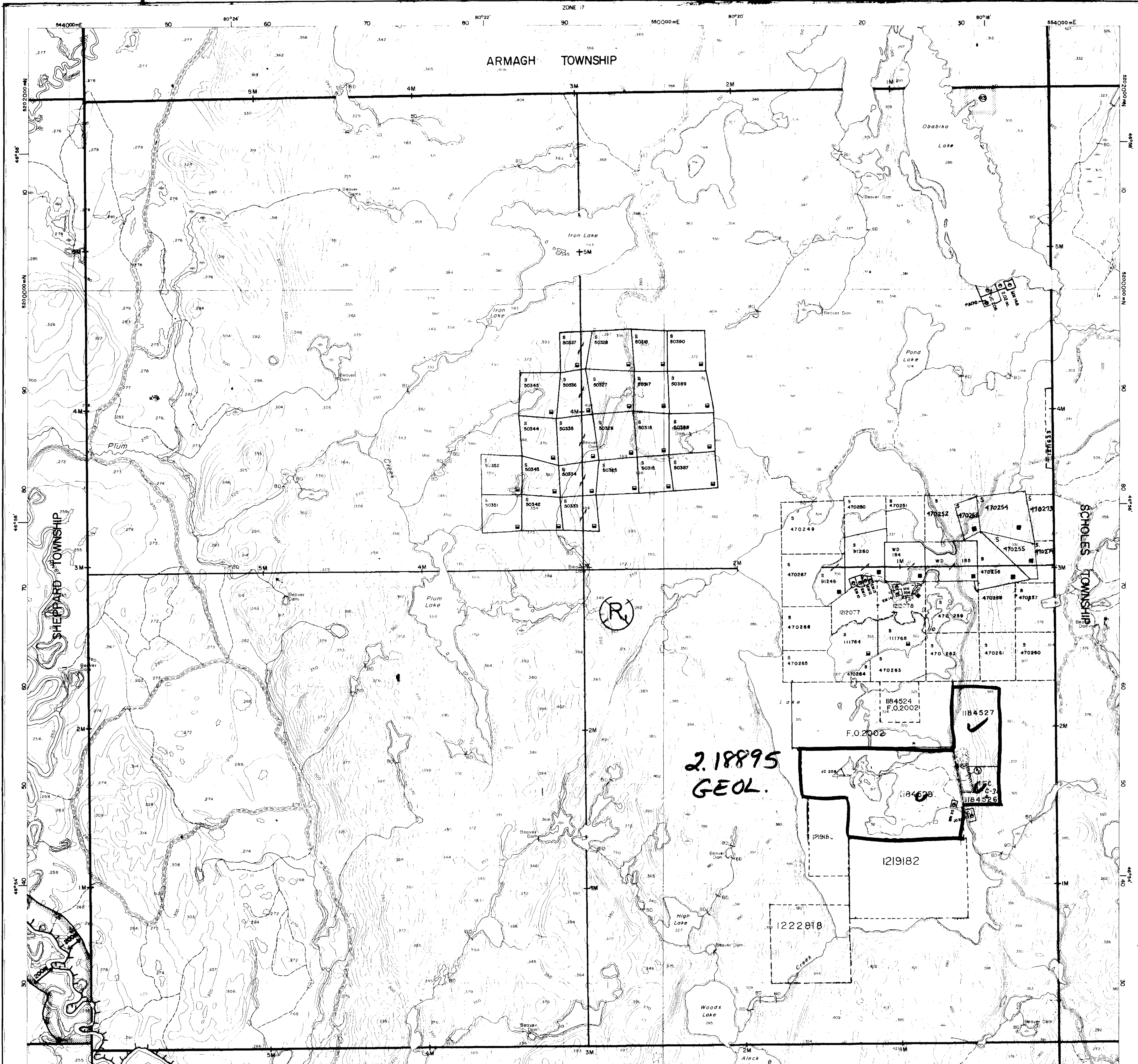
Transaction Number: W9870.00546


<u>Claim Number</u>	<u>Value Of Work Performed</u>
1184526	2,322.00
1184527	2,322.00
1184528	2,322.00
	<hr/>
Total: \$	6,966.00

C-5800

PWT NOTFA

4115902104 2.18895 AFTON

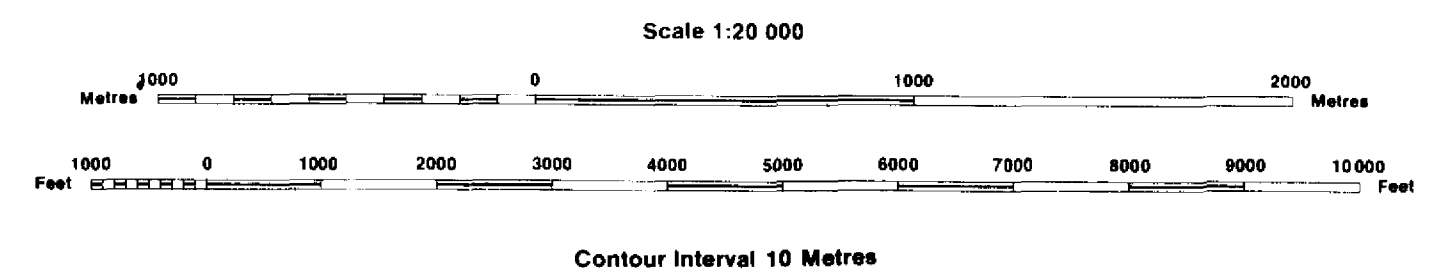



 Ministry of Natural Resources
 Ministry of Northern Affairs and Mines

INDEX TO LAND DISPOSITION

PLAN
 G-2900
 TOWNSHIP
AFTON

M.N.R. ADMINISTRATIVE DISTRICT
NORTH BAY
 MINING DIVISION
SUBBURY
 LAND TITLES/REGISTRY DIVISION
SUBBURY



AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
 SRO - Surface Rights Only
 M+S - Mining and Surface Rights

Description	Order No.	Date	Disposition	File
SEC. 35/180	W-3-23/98	03/10/98	M+S	18880
SEC. 35/180	W-3-23/98	03/10/98	M+S	18880
SEC. 35/180	W-3-23/98	03/10/98	M+S	18880
SEC. 35/180	W-3-23/98	03/10/98	M+S	18880

Part of order W 2/82 REPEALED by order
 O.M. O/90 HER effective April 3, 1990 at 7:00 AM E.S.T.

SEC. 35/180 W-3-23/97 10/10/97 M+S 18510

SYMBOLS

- Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed shoreline
- Lot/Concession; surveyed unsurveyed
- Parcel; surveyed unsurveyed
- Right-of-way; road railway utility
- Reservation
- Cliff, Pit, Pile
- Contour Interpolated Approximate Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track double track abandoned
- Road; highway, county, township access trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

DISPOSITION OF CROWN LANDS

- 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
- Cancelled
- Reservation
- Sand & Gravel

DATE OF ISSUE

NOV 13 1998

PROVINCIAL RECORDING OFFICE - SUBBURY

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

C-58

PWT NOTFA