

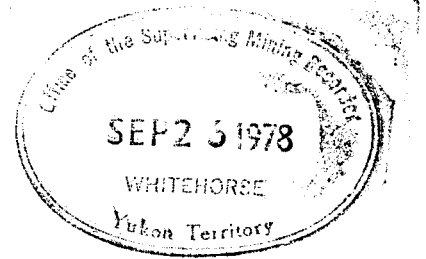
FIGURE 1

LOCATION MAP

SEPTEMBER 20, 1978

Donald W. July

AN ASSESSMENT REPORT
ON A
GEOLOGICAL SURVEY AND PARTIAL RADIOMETRIC SURVEY
OF THE
GRAY CLAIMS NOS.1-24
YA00715 - YA00738
SEAGULL CREEK - ROSS RIVER AREA
WATSON LAKE MINING DISTRICT
YUKON TERRITORY



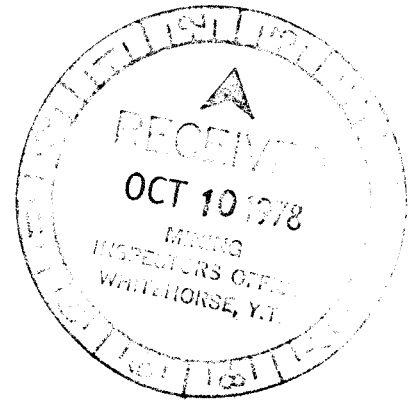
N. LAT. 61°29'

W. LONG. 132°34'

105-F-7

FOR
NITHEX EXPLORATION LTD. [NPL]
404 - 470 Granville Street
Vancouver, B. C.

BY
DONALD W. TULLY, P.ENG.



September 20, 1978

West Vancouver, B. C.

090378

DON TULLY ENGINEERING LTD.
SUITE 102 - 2222 BELLEVUE AVENUE
WEST VANCOUVER, BRITISH COLUMBIA
V7V 1C7

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION.....	1
SUMMARY AND CONCLUSIONS.....	1
PROPERTY - LOCATION, ACCESS, PHYSIOGRAPHY.....	2
CLAIMS.....	3
HISTORY - PREVIOUS DEVELOPMENT.....	4
REFERENCES.....	4
SURVEY PROCEDURE.....	5
REGIONAL GEOLOGY - GENERAL.....	5
PROPERTY GEOLOGY - Table of Formations.....	6
- Rock Types.....	7
- Structure.....	7
- Metamorphism.....	8
RADIOMETRIC SURVEY.....	9
MINERALIZATION - ASSAYS - AEROMAGNETICS.....	9
RECOMMENDATIONS.....	11
TIME - COST DISTRIBUTION.....	12
CERTIFICATE.....	13

MAPS

Figure 1 - Location Map.....	[Frontispiece]
Figure 2 - Topographic Plan.....	[Following page 1]
Figure 3 - Claim Plan.....	[Following page 2]
Figure 4 - Regional Geology [after GSC Map 7-1960, Quiet Lake].....	[Following page 5]
Figure 5 - Part of Aeromagnetic Maps 1374G and 1393G.....	[Following page 9]
Figure 6 - Plan of Geological Survey and Partial Radiometric Sur- vey of Property [Scale 1:50].....	[in pocket]

APPENDIX

ASSAY CERTIFICATES NOS. 7809 - 0851

INTRODUCTION

The GRAY #1 - 24 mineral claim group is located in the Seagull creek area of the Central Yukon some 40 air miles south of the town of Ross River.

A geological survey and partial radiometric survey was done over the claim group during the period August 18 - 23, 1978. This assessment work program was authorized by Nithex Exploration Ltd. [NPL].

A program of further exploration work appears to be warranted to test the mineral potential of this under-explored property.

SUMMARY AND CONCLUSIONS

Four lithological units are recognized over the GRAY #1 - 24 claim group namely, quartzite, phyllite, limestone and a meta-diorite and volcanic member observed truncating schistose elements in phyllite.

Structurally the lineal elements in the rock exposures trend northwesterly more or less parallel to the trend of the units. A major fault zone is thought to lie along the west side of the claim group trending north-northwesterly along Seagull Creek. The dips of foliation and schistosity are for the most part steeply north with a minor fold axis lying along the strike trend on GRAY claims #13 and 19.

Metamorphic effects are evident in all rock types. Sericite is common in the quartzitic and phyllitic horizons.

Narrow graphitic bands are frequently developed along with sericite and quartz veining in the phyllites. Skarn was observed in association with quartz in the limestone member. Some of the quartz veins are up to one metre in width and appear to occur as a stockwork.

Mineralization was found in "float" boulders and the results of rock geochem assays on four of these showed anomalous values in nickel, copper, lead and zinc. Local magnetic attraction was encountered when surveying using compass and chain. No significant radioactivity was noted in that part of the west sector of the claim group covered by the scintillometer survey.

It is concluded the GRAY #1 - 24 claim group is located in a favourable geological environment for mineral exploration and warrants a program of bulldozer trenching, magnetometer and electromagnetic surveying to test the claim area for mineral target zones.

PROPERTY - LOCATION, ACCESS, PHYSIOGRAPHY

The GRAY property comprises twenty-four mineral claims, numbers YA 00715 through YA 00738 inclusive, located at Grayling Lake, Seagull Creek, Ross River area, Watson Lake Mining District, Yukon Territory. This ground is situated on the southwestern flank of the St. Cyr Range in the Pelly Mountain System.

Road access is available using a 4-wheel drive vehicle from mileage 71 on the Canol Road eastward along the valley of Groundhog Creek to Seagull Creek. Thence southeastward to a point about a mile north of the claim

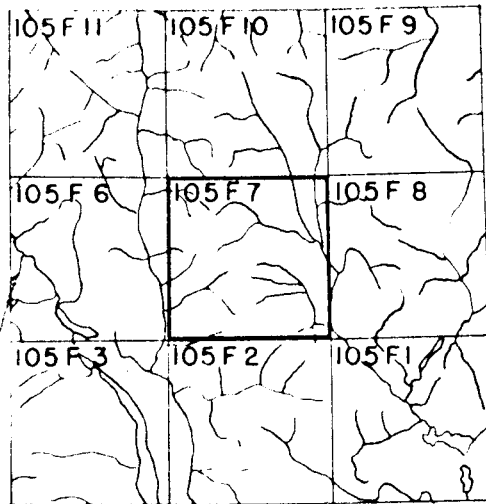
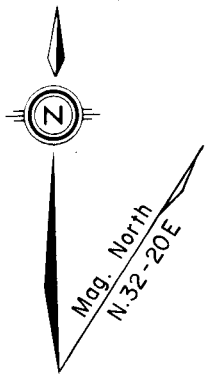


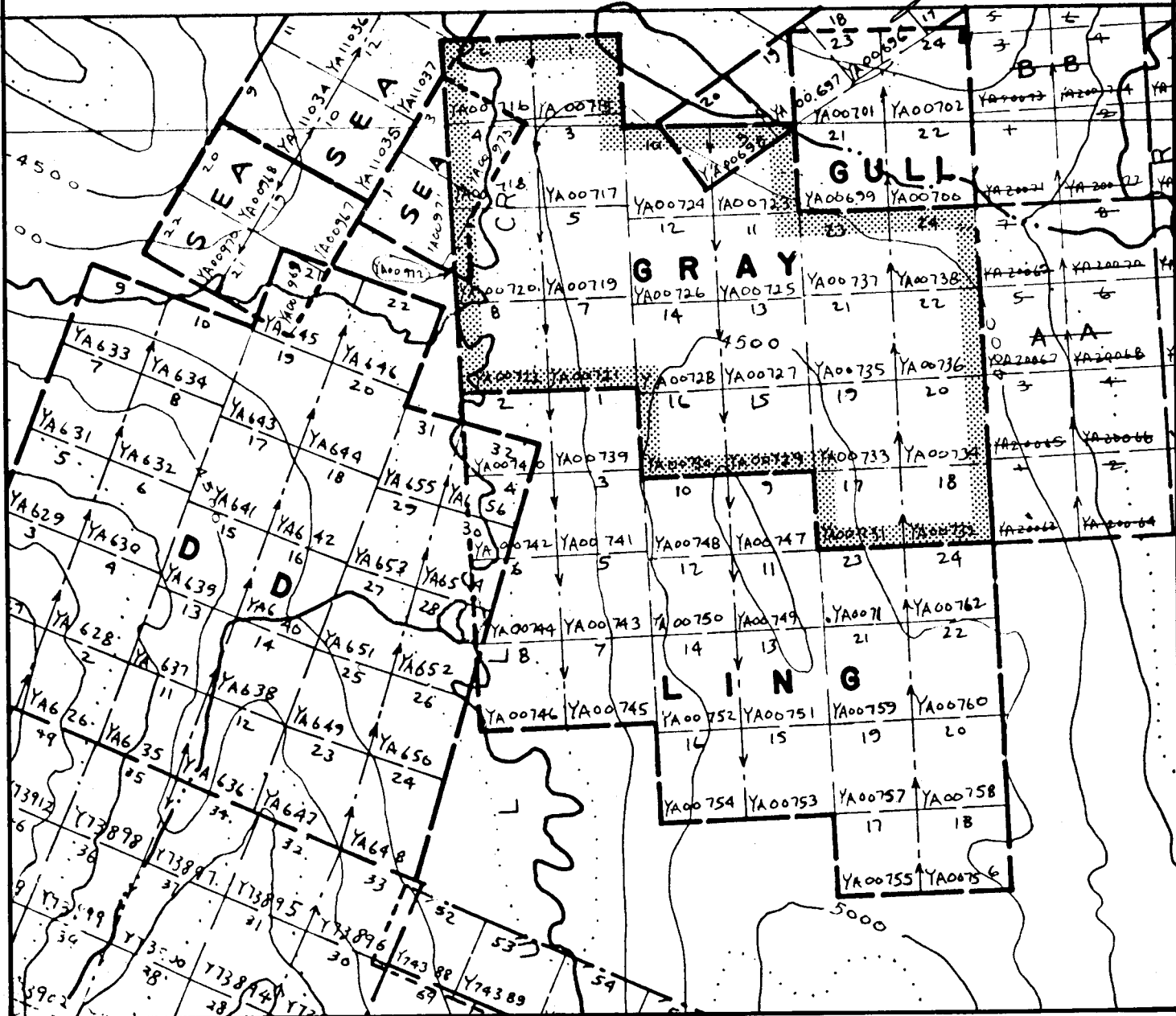
FIGURE 3
CLAIM PLAN
 PART OF 105-F-7

SCALE : 1" = 1/2 mile

SEPTEMBER 20, 1978

DONALD W. TULLY, P. ENG.

Donald W. Tully



group where the road ends on the east side of Seagull Creek. Helicopter transport from Ross River, some 38 - 40 miles to the north, is probably the better mode of transport [Figure 2].

Elevations over the property vary from 3,600 feet above sea-level at Grayling Lake to some 4,500 feet in the southeast portion of the claim group. Topography rises southeastward and marks a local divide between the Seagull Creek and the McConnell River drainage systems both of which flow southeastward.

A considerable growth of sizeable spruce and balsam cover the claims. Overburden depth is probably shallow except in the valley areas. Most of the rock exposures occur above the 4,000 foot elevation.

CLAIMS

The GRAY #1 - 24 mineral claims are recorded in the Watson Lake Mining District at Watson Lake, Yukon, as follows:

<u>Claim Name</u>	<u>Grant Number</u>	<u>Date Recorded</u>	<u>Recorded Holder</u>
GRAY #1-24 inclusive	YA00715-YA00738	August 24, 1976	Nithex Exploration Ltd.

The claims are shown on Claim Sheet 105-F-7. Assessment work was recorded in 1977 and also in 1978.

HISTORY - PREVIOUS DEVELOPMENT

Prospecting interest in the Seagull Creek area has been active. Numerous lead-zinc-silver showings have been found. Occurrences of molybdenum, copper, gold and uranium are also in evidence. Pyrite and pyrrhotite are commonly associated with the mineralization as exhibited frequently in the numerous gossans visible on mountain slopes in the area.

Since Cyprus-Anvil discovered a significant intersection of base metal sulphides on the MM-Yukon claims by diamond drilling some two years ago several major exploration companies have been interested in this area.

During the field seasons of 1975 and 1976 Marvin Sherman prospected the area north of the GRAY claims.

The Cyprus-Anvil diamond drill intersection some two miles to the south in August of 1976 prompted staking of the GRAY claim group. Subsequently Mr. Sherman discovered boulders on the south side of Grayling Lake carrying pyrite, pyrrhotite and minor chalcopyrite. He also found swarms of white quartz veins in stockwork array located some three claims south of Grayling Lake on the GRAY claims.

REFERENCES

1. Geological Survey of Canada Map 7 - 1960, with accompanying notes. By J.O. Wheeler, L.H. Green and J.A. Roddick.
2. Geological Survey of Canada Open File Report No. 486 [105-f] by D.J. Templeman-Kluit [1976]

3. Geological Survey of Canada Geophysics Paper 1374G [Big Creek] and Geophysics Paper 1393G [Pass Peak]
4. Geological Evaluation Report GULL-JD-GRAY-LING claim groups, Sheets 105-F-7 and 10, dated November 4, 1976 by R.G. Hilker, P.Eng.
5. N.T.S. Topographic maps 105-F [1:250,000] and
105-F-7 [1:50,000]
6. Yukon Claim Sheet 105-F-7

SURVEY PROCEDURE

Control was provided by chain and compass using the location line between GRAY claims 9-10, 11-12, 13-14, 15-16, as a baseline. Flagging was used as chainage markers at each 100-metre interval along the baseline and also on chain and compass lines in the west sector of the property where scintillometer readings were taken. East of the baseline pace and compass lines were run north-south in search of geological features. Topographic contours at 100-foot intervals were noted as shown on Figure 6.

REGIONAL GEOLOGY - GENERAL

The GRAY claim group is located in the east central part of the Quiet Lake [105-F] area between Seagull Creek and McConnell River some five miles north of the confluence of these two drainage systems. Most of the observations contained herein are collected from Geological Survey of Canada Map 7 - 1960 and the accompanying notes by J.O. Wheeler, L.H. Green and J.A. Roddick. The writer made several personal observations at two helicopter stops, in this area, on returning from the field work on the GRAY claims.

LEGEND

Map-units 66, 3a, appear on Map 8-1960, "Finlayson Lake" only

QUATERNARY
12 Unconsolidated glacial and alluvial deposits

TERTIARY
11 Dark brown and black basalt flows

PALEOGENE
10 Shale, sandstone, and conglomerate

JURASSIC AND/OR CRETACEOUS
9 Medium- to coarse-grained, biotite granodiorite and quartz monzonite, in part porphyritic; minor diorite, granite, and gneiss

MISSISSIPPIAN (?)
8 Current-bedded, ripple-marked, dark grey limestone, minor dark grey and brown argillite, and dolomite

MISSISSIPPIAN (?) OR EARLIER
7 Heterogeneous, shattered hornblende syenite, associated with unit 6

6a, partly altered green volcanic rocks, greenstone, meta-diorite; minor serpentine and amphibolite;
6b, green and maroon breccias, tuffs, and flows, minor meta-diorite, slate, chert, and greywacke;
6c, buff, rusty, and pale green felsic breccias and tuffs; minor chert and brown crinoidal limestone;
6d, massive grey and cream limestone

5 Brown and black-weathering, siliceous slate and shale, thin-bedded vacuolated chert with shaly partings, speckled grey and brownish grey greywacke; minor chert pebble conglomerate

SILURIAN AND DEVONIAN
4 Grey and buff-weathering, thick-bedded dolomite with local lenses of chert; buff to reddish weathering, well-bedded, dark grey dolomite, and sandy and silty dolomite; buff, grey and white, lichen-covered quartzite

ORDOVICIAN AND SILURIAN
3 Black slate, platy black limestone, grey and pink siltstone; 3a, minor volcanic breccia

CAMBRIAN
MIDDLE AND UPPER CAMBRIAN (?)
2 Lustrous phyllite, grey and orange-weathering phyllite, in part limy and dolomitic, and locally changed to hornfels; minor greenstone, limestone, chert, greywacke, and phyllitic quartzite (perhaps younger); 2a, greenstone breccia and tuff

LOWER CAMBRIAN
1a, massive grey and buff quartzite; 1b, grey and brownish grey phyllite; 1c, grey, buff, and orange-weathering, grey limestone, locally oolitic; 1d, limestone, quartzite, and phyllite, undivided

A Quartz-biotite and quartz-chlorite schist, micaceous quartzite, hornfels; minor phyllite and limestone
B Limestone and minor dolomite associated with A and C
C Micaceous, quartzose gneiss, granitoid gneiss, minor quartz-biotite schist
D Dunite; minor peridotite, pyroxenite, and serpentinized equivalents; gabbro and diorite

Geological boundary (defined, approximate or assumed)
Limit of geological mapping, unmapped area
Bedding (horizontal, inclined, vertical, overturned)
Bedding (dip known, tops unknown)
Bedding (estimated attitudes, includes foliation in metamorphic rocks; dip g, gentle, m, medium, s, steep)
Foliation (horizontal, inclined, vertical)
Fault (defined, approximate or assumed)
Thrust fault (defined, approximate or assumed)
Anticline (defined, approximate)
Syncline (defined, approximate)
Fossil locality
Mineral occurrence or prospect
Rock altered to hornfels

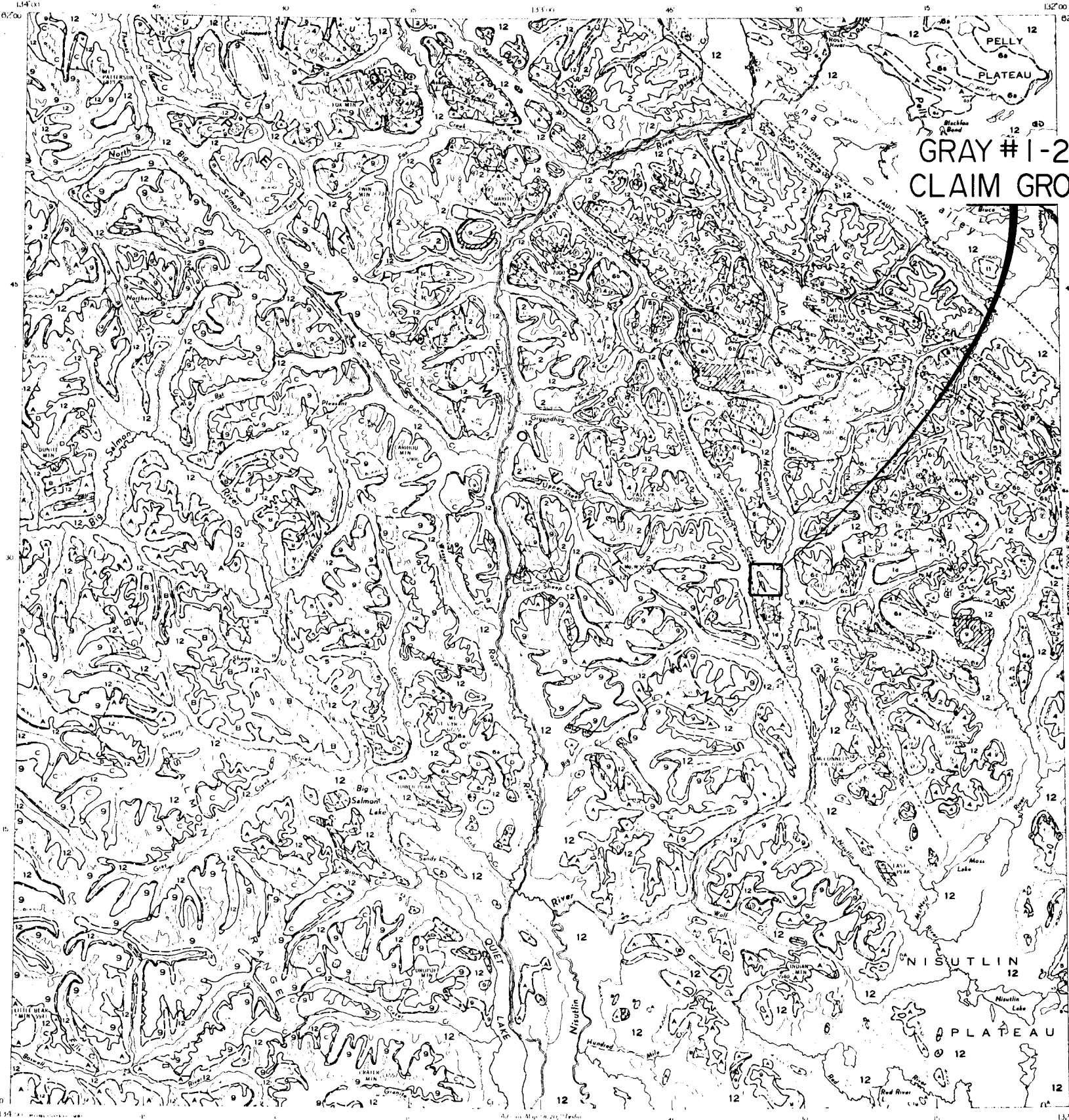
MINERAL SYMBOLS

Asbestos	asb	Lead	Pb
Barite	ba	Molybdenum	Mo
Copper	Cu	Silver	Ag
Gold	Au	Tungsten	W

Geology by J.O. Wheeler, 1956, 1958, 1959;
L.H. Green, 1959, and J.A. Roddick, 1959

Air photographs covering this area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa

In response to public demand for earlier publication, preliminary series maps are issued in this simplified form and will be clearer to read if all or some of the map-units are hand-coloured



DESCRIPTIVE NOTES

The map-area is accessible during the summer months by motor vehicle on the Canal Road as far as Pelly River, by small boat on Big Salmon, Pelly, and Nisutlin rivers, by horse along the outer valleys, and by float-equipped aircraft. The Hoole Canyon on Pelly River requires a portage.

Ice covered all or most of the area during the Pleistocene. It moved west and northwest along the major valleys, controlled strongly by topography in the Pelly Mountains.

The quartzites (1a) exposed near the gold property west of Keta River, and west of Seal Creek, where metamorphosed rocks in the Pelly Mountains. They are at least 1,000 feet thick and are overlain by a few hundred feet of phyllite and slate (1b) containing trilobite fragments. These in turn are overlain by limestone (1c) with Lower Cambrian archeocyathids. The Lower Cambrian limestone, and probable correlatives west of Lapie Lakes are overlain by an extensive unit of phyllite (2) of unknown thickness. Intrusive and extensive bodies of greenstone occur within the phyllite. Metamorphism to phyllite (2) of the pre-existing shales southwest of the head of Ram Creek was prevented by previous alteration to hornfels.

Unit 2 is separated from unit 4 in several places by black slates, siltstones, and, locally, volcanic breccia (3) totaling probably less than 700 feet in thickness. Graptolites collected from siltstone beds in this unit range in age from Lower Ordovician to Middle Silurian. The volcanic breccia (3a) overlying the graptolitic siltstone is characterized by turquoise-green fragments.

Unit 4 consists of three members. Its total thickness is about 3,500 feet near McConnell Peak, 1,000 feet near the head of McConnell River, and perhaps as much as 5,000 feet near Fox Mountain. The basal member is about 2,000 feet thick, except near the head of McConnell River where it is reduced to about 25 feet and north of Pass Peak where it is missing. Near Mount Hogg the basal member comprises sandy and silty dolomites with lenses of massive, grey dolomite containing fossils of Silurian age. The basal member is restricted to fault blocks near peak 6570. The middle member consists of dolomitic sandstone and quartzite, and is about 1,000 feet thick except near the head of McConnell River and west of Seal Creek, where it is about 300 feet thick. It commonly contains current-bedding and ripple marks. The upper member, mainly a dark grey dolomite, contains Middle Devonian fossils. It is more than 1,500 feet thick near Fox Mountain, but elsewhere is less than 1,000 feet.

Clastic sedimentary rocks and bedded chert (5) and volcanic rocks (6) lie disconformably, at different localities, on units 2, 3, and 4. Unit 5 contains possible fossil plants 8 miles northwest of Fox Mountain (outside the map-area) and volcanic rocks are restricted to the region east of Seal Creek, north of White Creek, and southwest of the Porcupine thrust. Most of the volcanic rocks (6) are either of the type intruded with rocks of unit 5, and hence are probably Mississippian in age. On the other hand, the volcanic rocks (6) are unassociated with the Porcupine thrust and are of later date.

The several syenitic rocks (7), which occur only in association with the felsic rocks (6c), are heterogeneous in texture and composition. Areas of fine-grained, leucocratic syenite grade locally into pegmatitic syenite containing 1-inch hornblende crystals. The syenites are cut by slickensided joints, numerous shear zones and carbonated breccia zones, and brown amygdaloidal felsic dykes. Fluorite is an abundant accessory mineral in the syenite body near peak 6541. Being restricted to the felsic volcanic rocks (6) and probably related to them, the syenites are considered Mississippian.

Unit 8 consists of clastic limestone in beds 2 to 30 feet thick, separated by thin argillaceous layers, but is dolomitic and argillaceous near the edges of the outcrop areas. It was found only in the St. Cyr range where it is invariably associated with unit 5.

The granitic rocks (9) are clearly intrusive in places. The contacts are commonly sharp, although in places gradational through complex zones of migmatite. The origin of the plutonic rocks was not established.

Ultramafic rocks (D) occur in two main localities, Dunite Mountain and Tower Peak. Dunite is the chief primary rock in both occurrences although little is present in the Tower Peak area. Minor amounts of pyroxenite were noted near the margins of the Dunite Mountain body. Serpentine is concentrated around the margin of this body, but is rather ubiquitous at Tower Peak. At Dunite Mountain the metamorphic rocks dip gently under the dunite, suggesting a topographic body of the same age as the dunite. The volcanic breccias (6b) at the head of Ram Creek contain fragments of serpentine. This suggests an age not younger than Mississippian for at least some of the ultramafic rocks. No significant amount of asbestos was noted in the map-area.

Major structures in the map-area trend northwest. They may be divided into four belts, which are from southwest to northeast: 1) a broad belt of unmetamorphosed and metamorphic rocks (containing an area of unmetamorphosed Palaeozoic rocks around Big Salmon Lake); 2) a belt of folded and faulted Palaeozoic rocks; 3) and intensely deformed zones between the Porcupine thrust and Tintina Valley (here occupied by Pelly River, and including an echelon of outcrops of the Keesy Mountain Trench); and 4) and area of metamorphic rocks and Palaeozoic volcanic rocks northeast of the Tintina fault.

The metamorphic rocks (A, B, C) in the southwestern part of the map-area are characterized by northeast trends and moderate northeast dips. Departures from this attitude are confined mostly to contact zones, a broad area within the bend of Big Salmon River where gentle dips prevail, and the zone between Big Salmon River and the granitic rocks to the northeast, characterized by southwest dips.

The belt of unmetamorphosed Palaeozoic rocks is divided by the Seal Creek fault. West of the fault extensive areas of phyllite (2) are overlain by numerous bodies of dolomite (4). Some of these are conformable on the phyllites, whereas others (near peak 7000) are probably parts of folded thrust sheets (direction of movement uncertain). East of Seal Creek fault, structural trends are obscure, as the volcanic rocks (6) commonly have gentle dips and units 1 and 4 are in places folded to overturned and recumbent positions. The zone, furthermore, is broken into numerous blocks by both thrust and normal faults, and is characterized, east of Seal Creek, by isolated slippings of unit 4. The western margin of the zone is marked around McConnell Peak by folds overturned to the southwest, and west of Lapie Lakes by a northeast-dipping reverse fault which brings limestone of unit 1 onto crystalline rocks of unit A. The eastern margin is defined by the northeast-directed Porcupine thrust. The carbonate rocks of unit 4 in the upper plate of the Porcupine thrust are deformed into synclines and faulted anticlines cut by northeast-trending faults that are restricted to the upper plate.

The intensely deformed zone between the Porcupine thrust and the Tintina fault is divided by the St. Cyr fault. West of the St. Cyr fault are incompetent sediments (5, 8) which are deformed into tight, irregular, essentially upright folds containing steeply dipping fault slices of unit 4. The western outcrops of this zone reveal folds overturned to the northeast. East of the St. Cyr fault is a southwest-trending belt of disharmoniously folded phyllites (2).

The Palaeozoic sedimentary rocks (10), found only in Tintina Valley, have dips as steep as 45°. The Tertiary basalts (11) are flat-lying. The structure of the metamorphic and volcanic rocks northeast of Tintina Valley is not known.

No operating mines exist in the map-area. Development work has been conducted on the molybdenite property near the head of Upper Sheep Creek, on the gold and base-metal properties near the head of Keta River, and on the asbestos property on Tower Peak. Although the metamorphic rocks in the southwestern part of the map-area appear favourable for metalliferous deposits, no significant mineralization was noted. Widely scattered, but not abundant, mineral occurrences are present in the Lower Palaeozoic rocks. The Lower Cambrian limestone is probably the most favourable for detailed prospecting.

**GRAY #1-24
CLAIM GROUP**

MAP 7-1960
GEOLOGY
QUIET LAKE
YUKON TERRITORY

Geology by J.O. Wheeler, 1956, 1958, 1959;
L.H. Green, 1959, and J.A. Roddick, 1959

Air photographs covering this area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa

In response to public demand for earlier publication, preliminary series maps are issued in this simplified form and will be clearer to read if all or some of the map-units are hand-coloured

MAP 7-1960
GEOLOGY
QUIET LAKE
YUKON TERRITORY

Geology by J.O. Wheeler, 1956, 1958, 1959;
L.H. Green, 1959, and J.A. Roddick, 1959

Air photographs covering this area may be obtained through the National Air Photographic Library, Topographical Survey, Ottawa

In response to public demand for earlier publication, preliminary series maps are issued in this simplified form and will be clearer to read if all or some of the map-units are hand-coloured

LEGEND

Road
Trail
Intermittent stream
Contour (interval 1000 feet)
Height in feet above mean sea-level

Cartography by the Geological Survey of Canada, 1960

Approximate magnetic declination, 33° 20' East

Geographical names subject to revision

FIGURE 4
REGIONAL GEOLOGY
Wendell W. Zullo
SEPTEMBER 20, 1978

Some of the oldest rocks in the Quiet Lake area are found on the GRAY claims and in the surrounding environs. These rocks strike northwesterly and are composed of impure quartzite [Unit 1a] overlain by phyllites and shales [Unit 1b]. These in turn are overlain by limestone which outcrops within the phyllites and also south of the property. This succession of rocks is highly metamorphosed and is considered to be Early Cambrian in age. This quartzite-phyllite-limestone assemblage is overlain by a thick succession of Upper Cambrian phyllites [Unit 2] with intercalated horizons of dolomitic limestone and volcanic members.

Units 3, 4, 5 and 6 outcrop in the general area and are progressively younger in age relationships. [Figure 4]

Syenite intrusives were noted a short distance north of the GRAY claim group [Unit 7].

Major structural features in the area trend northwest. The Seagull Creek Fault Zone shown on Map 7-1960 can be seen to strike through the west side of the GRAY claims.

PROPERTY GEOLOGY

Four lithological units were mapped in the claim area [Figure 6]. A tentative table of formations is as follows:

<u>Rock Unit</u>	<u>Description</u>	<u>Age</u>
	Unconsolidated sediments	Quaternary
6a or 2a	Meta-diorite and greenstone volcanics	} Mississippian [?]
1d	Limestone	
1b	Phyllite	} Early Cambrian
1a	Quartzite	

Open File Report 486 refers to Unit 1 rock types as Unit 10c.

Rock Types

[Unit 1a] Quartzite is fine-grained, often shows a granitoid texture, and carries quartz, sericite less than ten percent chlorite and mafic minerals. Some phases are cherty in aspect and other phases show scattered garnets. It is grey-weathering and light grey on the fresh surface.

[Unit 1b] Phyllite frequently shows shale characteristics. It carries siliceous minerals as well as more than twenty percent biotite, chlorite and not uncommonly, narrow [1-2 cm] bands of graphitic schist frequently associated with sericite and quartz veining. This rock weathers a dark grey and generally shows platy, foliated and schistose characteristics.

[Unit 1d] Limestone weathers a light grey to buff colour. It outcrops on GRAY #13 and 19.

[Unit 6 or 2a] Meta-diorite weathers a greenish-grey. It shows a felty groundmass of mafic minerals and sericite in a medium to fine-grained matrix. Some exposures have outlines of relict structures suggestive of volcanic fragments and may represent an agglomeratic phase. This rock type was observed truncating phyllites on GRAY #15.

Structure

Planar and lineal elements of foliation and schistosity trend northwesterly through the property [Figure 6].

Changes in dip direction and dragfolding in the area of claims GRAY #13 and 15 suggest a minor fold axis occurs more or less parallel to the unit formational trend. Rocks have been subjected to rather intense tectonic action. Locally, schistosity is well developed and cross-faulting is also apparent in some outcrops.

A topographic lineament of a regional nature trends in a north-northwesterly direction across the west side of the claim group.

Geological contacts were observed on GRAY #19 where a narrow band of limestone occurs between quartzite on the north and a phyllitic member of unit 1b on the south. Meta-diorite truncates phyllite on GRAY #15.

Metamorphism

Metamorphic equivalents of primary rock types are evident on the property. For example, the impure quartzite common in outcrops at higher elevations on the claims, exhibits phases of siliceous schist with substantial sericite content. Other phases of this member are cherty in aspect. Garnets were noted in a few instances.

Graphitic bands were frequently noted in association with quartz veining and sericite in the phyllitic horizons.

Limestone was observed to be buff-coloured and hornfelsed in the presence of quartz veining. The skarn minerals diopside and tremolite are sometimes visible.

RADIOMETRIC SURVEY

Scintillometer readings were taken over GRAY claims 3, 5, 7, 9-15 using a Scintrex model BGS-1, Serial No. 80105 instrument. Chain and compass was used to control reading locations which were taken at 100-metre intervals along north-south lines marked on the ground with flagging. Readings were taken at ground level and are plotted on Figure 6. Background for the claim area is considered to be ± 120 counts per second. All readings were taken on the 100k constant scale.

Isorads show a slightly higher radiation count on GRAY #7 and 8. This could be explained by mass effect through overburden accumulation in this area. Readings taken on rock outcrops, on observed shear planes and minor cross-fault fractures and on boulders showed the lowest readings. The northwesterly trend of the isorads is probably a function of regional structure and topographic trend.

MINERALIZATION - ASSAYS, AEROMAGNETICS

Oxidized sulphide-bearing boulders of "float" have been noted in the north sector of the claim group particularly along the former shoreline of Grayling Lake [Figure 6]. Four samples of these "float" boulders were analyzed. The locations are shown on Figure 6 and the results of rock-geochem assaying were as follows:

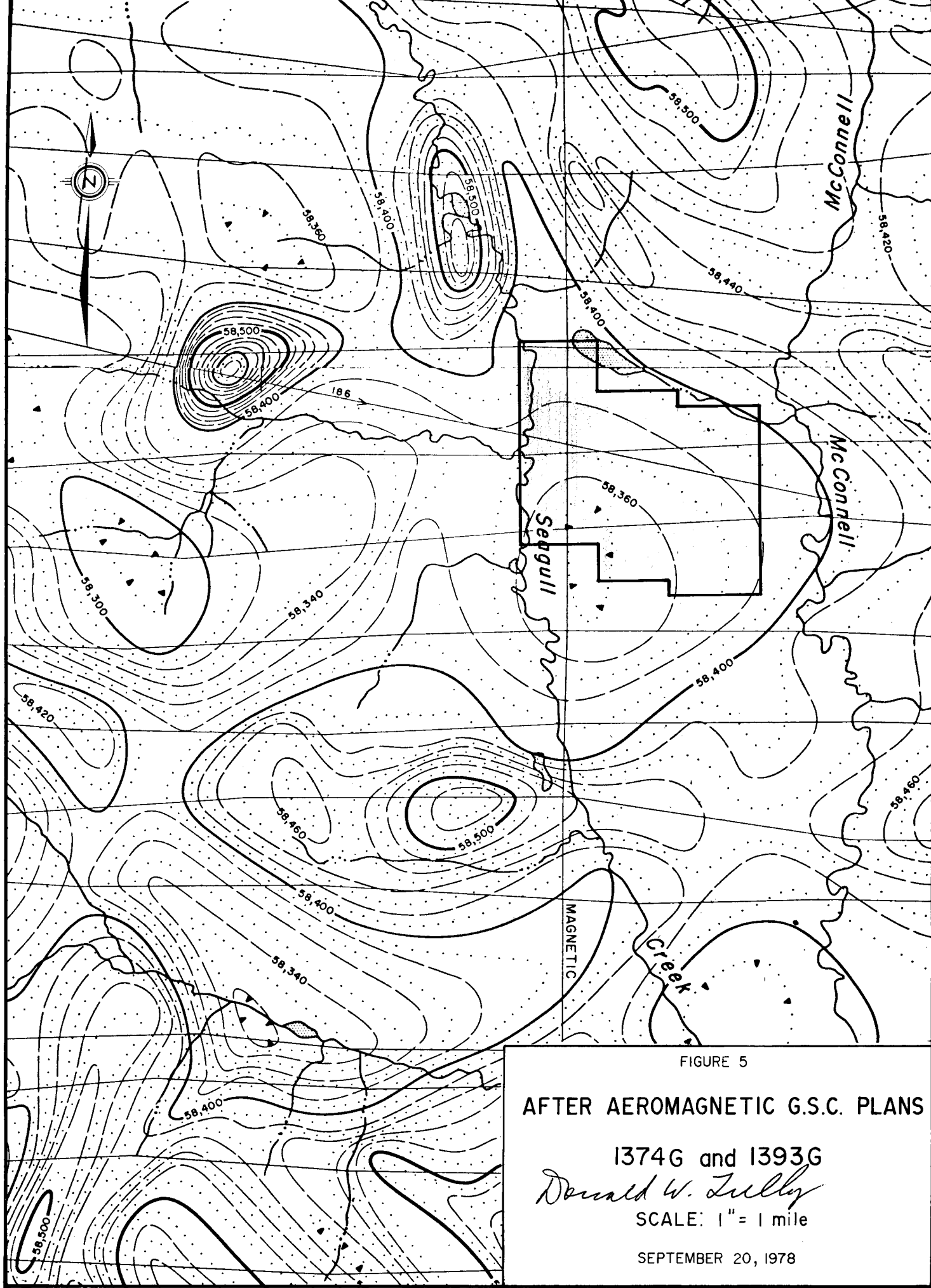


FIGURE 5

AFTER AEROMAGNETIC G.S.C. PLANS

1374G and 1393G

Donald W. Zully

SCALE: 1" = 1 mile

SEPTEMBER 20, 1978

<u>Sample No.</u>	<u>Copper [ppm]</u>	<u>Lead [ppm]</u>	<u>Nickel [ppm]</u>	<u>Zinc [ppm]</u>
1	341	63	363	97
2	361	375	25	750
3	70	43	38	160
4	231	43	109	880

Pyrrhotite, pyrite and chalcopyrite are the dominant sulphide minerals visible in these rock samples. Grains of galena were noted.

The source of these oxidized sulphide-bearing "float" boulders is of interest. Glaciation may have in part influenced their present location but the direction of glacial movement locally is not certain as no evidence of this direction was observed. The association of quartz boulders as well as quartzite boulders not unlike the rock types mapped on the GRAY claims may or may not be helpful. Trenching with a bulldozer on the GRAY claims might provide useful information. Local magnetic attraction was noted while surveying with compass and chain in the west sector of the claim group.

A study of the aeromagnetic maps covering the GRAY claim area [Figure 5] shows "low" magnetic intensity [± 40 gammas] area underlying the topographic "high" in the southern part of the claim group. The reason for this magnetic "low" is not clear but the "low" is generally in the area of the stockworks of quartz observed in some bed-rock exposures and may suggest the presence of an underlying higher temperature intrusive mass not observed in the map-area.

RECOMMENDATIONS

It is proposed that the GRAY claims be subjected to a program of trenching with either a bulldozer or backhoe to expose the bedrock in the following areas:

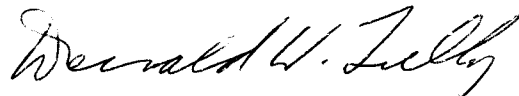
TRENCH NO. 1 - An east-west trench trending across GRAY claims #5, 12, 11, 23, 24.

TRENCH NO. 2 - An east-west trench trending across GRAY claims #7, 14, 13, 21, 22.

TRENCH NO. 3 - An east-west trench trending across GRAY claims #19, 20.

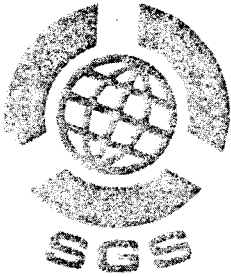
This work would give a better perspective of the geology underlying the claim area and facilitate access before any magnetometer or EM survey. The overburden is believed to be shallow.

Respectfully submitted,



Donald W. Tully, P. Eng.

September 20, 1978



GENERAL TESTING LABORATORIES

DIVISION SUPERINTENDENCE COMPANY (CANADA) LTD.

1001 EAST PENDER ST., VANCOUVER, B.C., CANADA, V6A 1W2
 PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

TO: **DON TULLY ENGINEERING LTD.**
 102 - 2222 Bellevue Ave,
 West Vancouver, B.C.

CERTIFICATE OF ASSAY

No.: 7809-0851 DATE: Sept. 14/78

We hereby certify that the following are the results of assays on:

Rock Geochem samples

MARKED	TESTS		Copper	Lead	Nickel	Zinc	xxx	xxx
			Cu (ppm)	Pb (ppm)	Ni (ppm)	Zn (ppm)		
E-3666								
1			341	63	363	97		
2			361	375	25	750		
3			70	43	38	160		
4			231	43	109	880		

NOTE: REJECTS RETAINED ONE MONTH. PULPS RETAINED THREE MONTHS. ON REQUEST PULPS AND REJECTS WILL BE STORED FOR A MAXIMUM OF ONE YEAR.

REPORTS ARE THE CONFIDENTIAL PROPERTY OF CLIENTS. PUBLICATION OF STATEMENTS, CONCLUSION OR EXTRACTS FROM OR REGARDING OUR REPORTS IS NOT PERMITTED WITHOUT OUR WRITTEN APPROVAL. ANY LIABILITY ATTACHED THERETO IS LIMITED TO THE FEE CHARGED.

Réal Naudeau
R. NADEAU, Chemist

~~XXXXXXXXXX~~

Analytical and Consulting Chemists, Bulk Cargo Specialists, Surveyors, Inspectors, Samplers, Weighers

MEMBER: American Society For Testing Materials • The American Oil Chemists' Society • Canadian Testing Association
 REFEREE AND OR OFFICIAL CHEMISTS FOR: National Institute Of Oilseed Products • The American Oil Chemists' Society
 OFFICIAL WEIGHMASTERS FOR: Vancouver Board Of Trade



LEGEND

- | | | | |
|--|------------------------------------|--|---------------------------------------------------|
| | Skarn | | Strike and Dip of Schistosity |
| | Quartz Veins and Stockwork | | Claim Line, Post, Staking Direction |
| | Unit 6 - Meta-Diorite (Volcanics) | | Blazed Line Between Claim Posts |
| | Unit 1d - Limestone | | Flagged Station |
| | Unit 1b - Phyllite | | Location Scintillometer Reading in C.P.S. @ 100 K |
| | Unit 1a - Quartzite | | Elevation Contour in Feet A.S.L. |
| | Dip, Direction, Plunge of Dragfold | | Rock Outcrop - Geological Contact |
| | Isorad Contour Interval 10 cps. | | Quartz Boulder Location |
| | Mineral Boulder | | Boulder "Float" Location and Sample Number |
| | | | Creek Flow Direction |
| | | | Swamp Area |
| | | | Radiometric Anomaly Area |

FIGURE 6

NITHEX EXPLORATION LTD.(N.P.L.)

GRAY CLAIMS #1-24
GRANT No's YA 00715-738

SEAGULL CREEK-ROSS RIVER AREA
N. LAT 61°-29' NTS 105-F W. LONG 132°-34'
WATSON LAKE MINING DISTRICT
YUKON TERRITORY

**SURFACE GEOLOGY PLAN
AND
RADIOMETRIC SURVEY-READINGS**

SCALE
METRES 50 0 100 200 300 400 500 600 700 METRES

To Accompany a Report Dated September 20, 1978 by Donald W. Tully, P. Eng.

NOTE: DISTANCES AND BEARINGS ARE BY CHAIN AND PACING AND COMPASS AND ARE APPROXIMATE ONLY.
ELEVATIONS ARE BY ANEROID BAROMETER.

Donald W. Tully