

G E O L O G I C A L R E P O R T

S L A T E C L A I M G R O U P

RECORD NO. 697(9); 740(9) to 758(9);
784(10); 793 (10);
794(10); 1428 (7)

STEWART AREA, BRITISH COLUMBIA

Skeena Mining Division

NTS 104A/4W and 104B/1E

Lat: 56° 06'N Long: 130° 00'W

Owner and Operator

Ocean Home Exploration Ltd.,
Box 3174, Station B,
Calgary, Alberta T2M 4L7

Contractors and Authors

Dianne and Ulrich Kretschmar,
R. R. #1,
Severn Bridge, Ontario POE 1N0

Date Submitted:

5th September, 1979

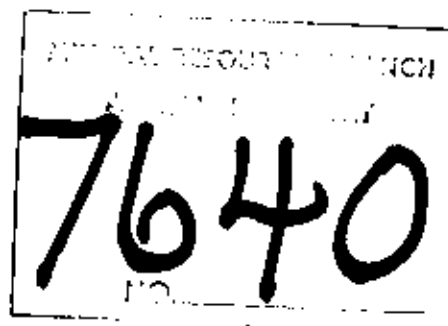


TABLE OF CONTENTS

INTRODUCTION	Page 1
LAND	Page 2
HISTORY	Page 4
GEOLOGY	
General	Page 5
Lithology	Page 6
Structure	Page 7
MINERALIZATION	Page 8
RECOMMENDATIONS	Page 9
STATEMENT OF EXPENDITURES	Page 10
STATEMENT OF QUALIFICATIONS	Page 11

List of Figures

Figure 1	Location Map
Figure 2	Claim Map
Figure 3	Reconnaissance Geological Map (1:12,000)
Figure 4	Start adits
Figure 5	Lakeshore and Bush adits

INTRODUCTION

The Slate claim group consists of 22 Reverted Crown Granted mineral claims totalling 420.33 hectares and two 2-post claims. The property is centered on Slate Mountain about 18 km north of Stewart. Access to different parts of the property is via the Big Missouri road or via boat from Long L. On the east the property is bounded by the Bear R. ridge and on the south by the British Silbak Premier property and Azure Resources' New Indian property. On the west it adjoins Tournigan's Big Missouri property.

The terrain is moderately steep. Much of the claim group lies above the tree line at about 3000' (900-1000 m.) elevation, where stunted spruce is the major flora.

Current owner and operator is Ocean Home Exploration Ltd, of Calgary. Economic assessment of the property is being carried out with the first step consisting of geological mapping at a scale of 1:12,000 and locating and assay sampling previously known showings on the property.

LAND

The Slate Group of 22 Reverted Crown Granted mineral claims and two 2-post claims consists of the following lots, as shown on Figure 2:

<u>RECORD NO.</u>	<u>RECORDING DATE</u>	<u>LOT</u>	<u>CLAIM NAME</u>	<u>HECTARES</u>
697 (9)	5 Sept/78	4041	Shure	19.75
740 (9)	"	3684	Sullivan	20.90
741 (9)	"	3685	Daly	20.90
	"	3785	Vandal Fr.	2.57
742 (9)	"	4043	Money	5.26
	"	5210	Start No. 6 Fr.	14.85
743 (9)	"	4176	Lakeshore	20.90
744 (9)	"	4448	Maple Leaf No. 4	19.73
745 (9)	"	5196	Bush No. 1	17.11
746 (9)	"	5197	Bush No. 2	19.53
747 (9)	"	5198	Bush No. 3	17.15
748 (9)	"	5199	Bush No. 4	18.18
749 (9)	"	5206	Start No. 2	20.80
750 (9)	"	5207	Start No. 3	14.03
751 (9)	"	5209	Start No. 5	15.31
752 (9)	"	5212	Star Extension No. 1	20.85
	"	5214	O. B.	0.17
753 (9)	"	5215	O. B. No. 1	13.05
	"	5216	O. B. No. 2	6.99
754 (9)	"	5217	O. B. No. 4	13.63
	"	5223	O. B. No. 2 Fr.	6.10
755 (9)	"	5219	O. B. Fr.	17.72
756 (9)	"	5222	Start Fr.	18.12
757 (9)	"	6204	Valley Fr.	20.10
758 (9)	"	5220	O. B. No. 1 Fr.	18.13
782 (10)	3 Oct/78	5211	Star Extension	20.72

LAND (Continued)

793 (10)	16 Oct/78	2-post claim	Slate 1	
794 (10)	"	2-post claim	Slate 2	
<u>1428 (7)</u>	30 July/79	4042	Double O No. 6	18.68

24 claims

HISTORY

The first record of work carried out on claims now included in the Slate Group is in the B.C. Min. of Mines report, 1925, p. A102. A tunnel was being driven on a promising vein showing on the Start claims. Between 1926 and 1928 considerable further work was carried out on the Start and Lakeshore claims by Bush Consolidated Gold Mines.

Hanson (1935) Geol. Survey of Canada Memoir 175, p. 156 describes the mineralization on the Start claim as a quartz vein about 6 ft. wide mineralized with galena and sphalerite.

In 1963, New Indian Mines drilled five diamond drill holes totalling 1300 feet and resampled the surface showings on the Lakeshore claims.

A description of the showings and a summary of the work done on the Lakeshore claim is given by Grove (1971, B.C. Min. of Mines and Petr. Res. Bull. 58, p.135). He considers that the mineralization consists of quartz breccia fissure veins localized in "dark mylonite". Mineralization is described as mainly pyrite and minor scattered galena and sphalerite with no significant gold or silver values.

GEOLOGYGeneral

The property is underlain by volcanic rocks of the Bear R. formation of the Hazelton group and sedimentary rocks of the Bowser group. The Hazelton group is generally considered to be upper Jurassic in age in the type Hazelton locality (R.V. Richards, 1974, Hazelton map area, Geological Survey of Canada, Annual Report, 75, Section A), and lower Jurassic in age in the Stewart area by Grove (1971, B.C. Min. of Mines and Petr. Res. Bull. 58). However, in the Stewart area, the Hazelton may be upper Triassic, since the Texas Creek Granodiorite intrusion has been dated at about 200 m.y. (J.G. Smith, 1977, Geology of the Ketchikan D-1 and Bradfield Canal A-1 quadrangles, Southeastern Alaska, U.S.G.S. Bulletin 1425.)

The Bowser sediments on Slate Mtn. overlie the Hazelton with angular unconformity and are considered to be middle Jurassic in age by Grove 1971, p.56. Bedding in the Bowser slates is distorted by folding and facies changes along strike.

In the north western part of the property, on the Shure claim and vicinity, Hazelton volcanoclastic rocks (Unit 1) trend north-south and dip steeply. A single top determination from graded bedding in a red and green tuffaceous sandstone (Unit 1b) indicates tops to the West, but from regional considerations, it is more probable that tops are to the East. Near the Start tunnel and to the south, intermediate volcanoclastics (Unit 1) trend northwesterly and dip steeply east, so that mixed volcanoclastics and sediments of Unit 2 are thought to overlie Unit 1. South and east of Monitor Lake, geological relations are slightly more complex. In general, strikes are northwesterly and dips, although variable, are predominantly to the northeast.

Metamorphic grade is greenschist facies.

Lithology

Unit 1

Intermediate volcanics of Unit 1a are predominantly green andesitic volcanoclastics with some possible flows. Tuffs and lapilli tuffs are most common but on the Shure claim there is a feldspar crystal lapilli tuff. The rocks are poly lithologic. Unit 1b rocks are distinctive brick red to purple, well-bedded epiclastics that are best exposed on the Big Missouri road at the north end of Silver Lakes.

Unit 2

Mixed volcanoclastics and sediments of Unit 2 are heterogeneous and sub-units show gradational contacts. Unit 2a is defined as a felsic tuff, commonly feldspar porphyritic and sometimes quartz porphyritic. Distinctive yellow-ochre colored rubble and soil develop from weathering of the felsic tuff. There are many textural variations of this rock type, characterized by a varying proportion of black, carbonaceous, shaley to silty fracture fillings and matrix. Frequently, Unit 2a could be called a crackle breccia or autobreccia, since cracks between breccia-size blocks of siliceous, feldspar porphyritic tuff are filled with black carbonaceous material and blue chalcedony.

Unit 2a grades into unit 2b when the proportion of matrix increases to the extent that the rock would be labelled a black shaley to silty lapilli tuff or breccia. A large proportion of the fragments are Unit 2a felsic tuff. Pumiceous lapilli size fragments were noted as well.

Rocks of Unit 2c are green andesitic volcanoclastics similar to Unit 1a. Minor amounts of grey to black limestone or dolomite, Unit 2d, were mapped in the Lakeshore tunnel and southwest of the Start adits.

Unit 3

Sediments of Unit 3 are variable but grey to bluish, well-bedded siliceous siltstone is most abundant. Beds of buff argillite, and tuffaceous greywacke also occur. Most distinctive are lenses of blue grey

chert up to 30 cm thick and several meters long. These outcrops are northeast of Monitor L.

Unit 4

The Bowser sediments (Unit 4) on Slate Mountain are predominantly black argillite and slate. Minor grey siltstone and brown sandstone were also seen. At the southeast end of Long L., a basal brown sandstone with black cherty pebbles is characterized by large (30-50 cm) calcareous concretions.

Structure

Four major faults are shown on Fig. 3 but in no case are the faults established unequivocally through offset units. In every location there are prominent topographic lows or scarps. To the east of Monitor L. bedding in siltstones of Unit 3 seems to be dragfolded on the east side of the northwest trending "fault".

Bowser slates on Slate Mountain are folded in a complex manner. At the south end of the mountain a large scale syncline is clearly defined, but further north, folding is small scale and more complex.

We do not have enough information to determine whether there is a large-scale synformal structure in the Hazelton volcanics.

MINERALIZATION

Two types of mineralization occur on the property:

1. Thin felsic, siliceous, pyritic tuff beds occur in a thick section of feldspar crystal lapilli tuff of Unit 1a on the Shure claim. (sample 79-0020, Fig.3) Base metal mineralization is minor.
2. Vuggy quartz breccia veins containing coarse-grained sphalerite, galena and pyrite, with or without chalcopyrite and tetrahedrite, were the target for underground exploration at both the Start adits and the Lakeshore-Bush area. Splashy mineralization exposed in the surface cuts was generally not intercepted underground.

As shown in Fig. 4, in the open cut above the Start No. 1 tunnel, an east-west trending quartz vein that pinches and swells contains lenses and blebs of coarse-grained sphalerite, galena and minor pyrite. Breccia fragments in the vein are host rock felsic feldspar porphyritic tuff. At the portal of No. 2 tunnel, feldspar porphyritic felsic tuff hosts a vuggy quartz breccia-filling vein. Mineralization consists of blebs of sphalerite and galena rimmed with pyrite.

In the Lakeshore trenches, (Fig.5) a quartz breccia vein contains pyrite, galena, tetrahedrite and minor sphalerite and chalcopyrite. The vein strikes 120/35 SW. This trend is parallel to bedding, but dip is opposite to bedding in the host mixed felsic and black tuff. Also, pyrite and minor tetrahedrite are disseminated in massive grey siliceous dolomite with small clear quartz eyes, in the Lakeshore tunnel.

No significant mineralization was seen in the adits on the Bush claim (Fig. 5).

Mineralization in trenches on the Bush claim near the west shore of Monitor Lake (Fig. 3) is similar to that in the Lakeshore trenches.

Seventeen assay and rock geochemical samples were collected, but results have not been received in time to be included in this report.

RECOMMENDATIONS

1. The property should be mapped in greater detail, at a scale of 1:5,000.
2. The remaining trenches should be assay sampled and an effort should be made to determine the factors controlling localization of the mineralization.

STATEMENT OF EXPENDITURES - SLATE GROUP1) Contract fees:

U. Kretschmar	- 6 days at \$127.71 per day - July 18, 24, 25; August 16, 17; September 1	\$ 766.26
D. Kretschmar	- 7 days at \$127.71 per day - July 24, 25, 28; August 16, 17, 26 (half day); September 1, 3 (half day)	893.97

2) Food and accommodation: including wages of J. Patricia Helliwell,
cook

- 13 man days at \$49.18 per man day	639.34
--------------------------------------	--------

3) Transportation: 4WD truck rental, fuel

- 13 man days at \$28.03 per man day	364.39
--------------------------------------	--------

4) Supplies: including maps and air photos, tools

- 13 man days at \$12.12 per man day	157.56
--------------------------------------	--------

5) Communications: including radio rentals

- 13 man days at \$9.76 per man day	126.88
-------------------------------------	--------

TOTAL EXPENDITURES	\$ 2,948.40
--------------------	-------------

Dianne Kretschmar

Dianne Kretschmar

STATEMENT OF QUALIFICATIONS

I, Dianne Kretschmar of R. R. #1, Severn Bridge, Ontario
POE 1N0 certify that:

1. I am a mining exploration geologist and Fellow of the Geological Association of Canada.
2. I am a graduate of McMaster University (B.Sc Honors in Geology and Chemistry, 1967).
3. I have worked as an exploration geologist in Canada and Alaska for Cominco Ltd.; Watts, Griffis and McQuat Ltd.; Resource Associates of Alaska and others.
4. I worked on the Slate property during July, August and September, 1979.

Dianne Kretschmar

Dianne Kretschmar
Geologist

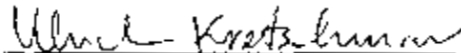
August 31st, 1979.

Premier, B. C.

STATEMENT OF QUALIFICATIONS

I, Ulrich Kretschmar, of R. R. #1, Severn Bridge, Ontario
POE 1No certify that:

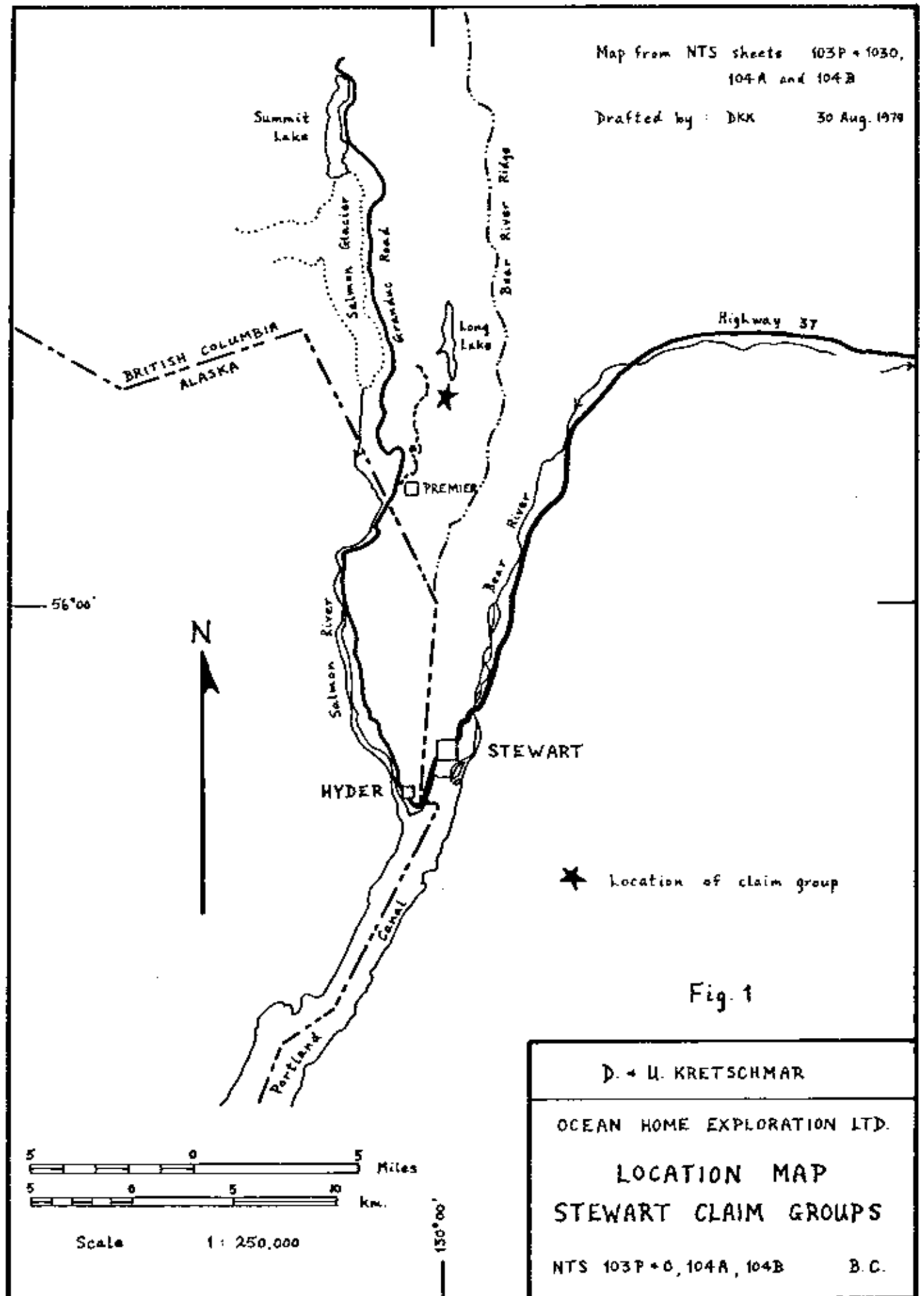
1. I am a mining exploration geologist and Fellow of the Geological Association of Canada.
2. I am a graduate of McMaster University (B.Sc. 1966, M.Sc. 1968), McGill University and University of Toronto (Ph.D. 1973).
3. I have worked as an exploration geologist in Canada and Alaska for Cominco Ltd.; Watts, Griffis and McQuat Ltd.; Resource Associates of Alaska and others.
4. I worked on the Slate property during July, August and September, 1979.

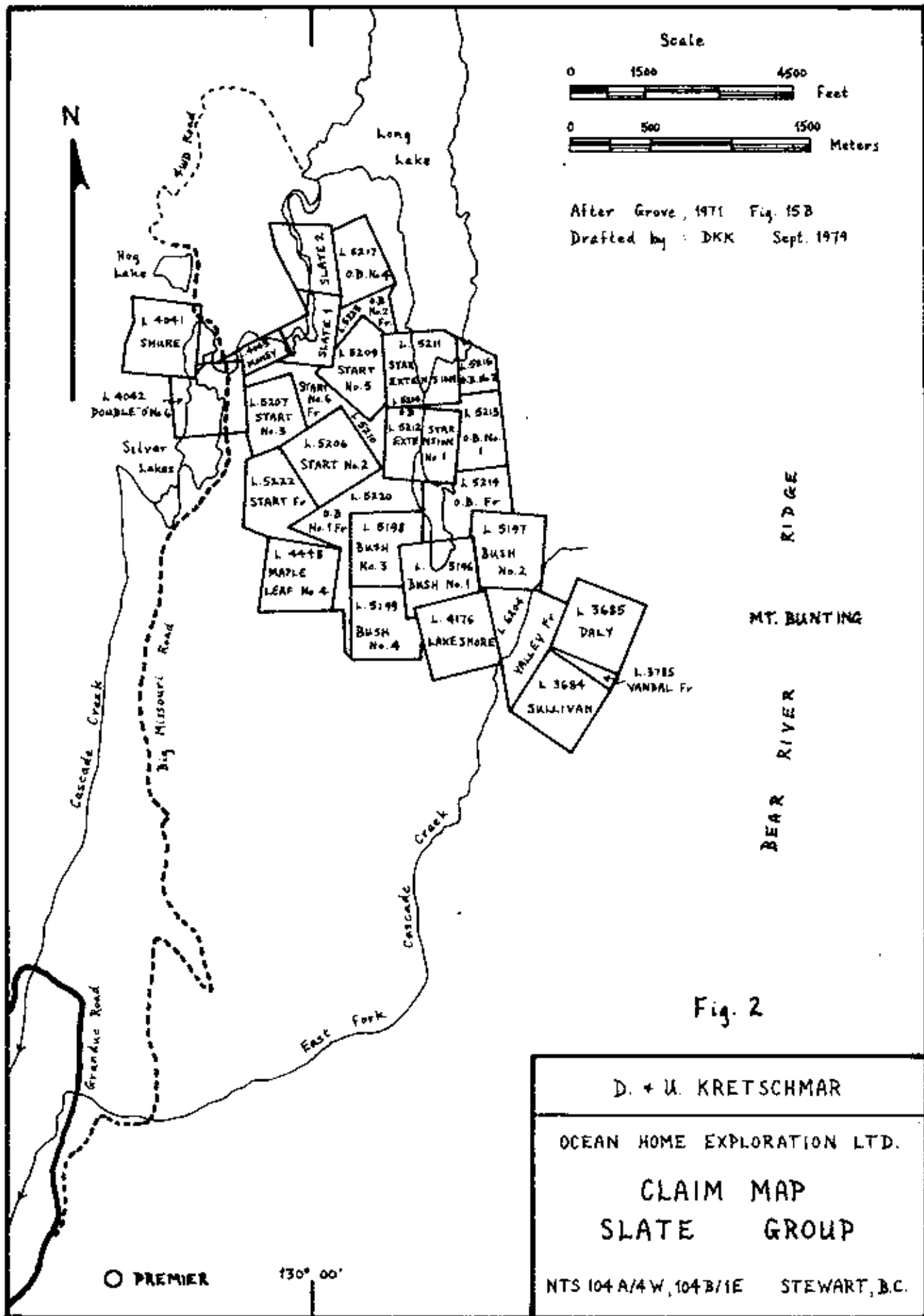

Ulrich Kretschmar, Ph.D

August 31st, 1979
Premier, B.C.

Map from NTS sheets 103P + 1030,
104A and 104B

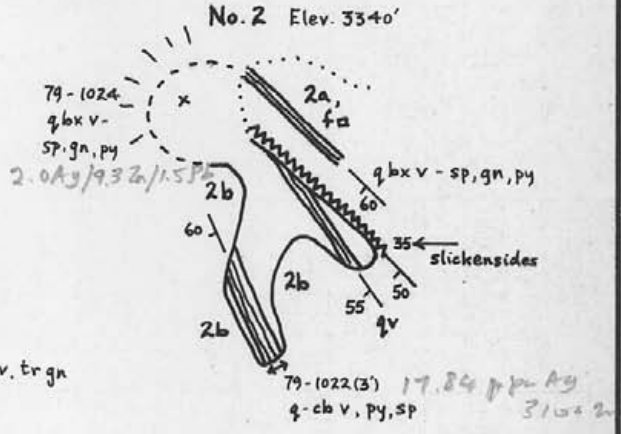
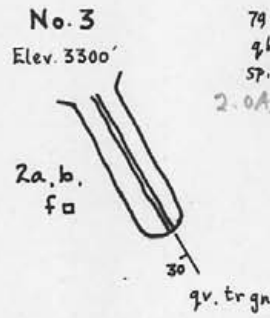
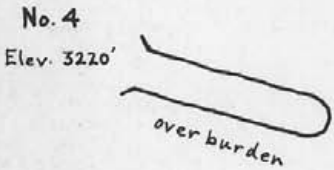
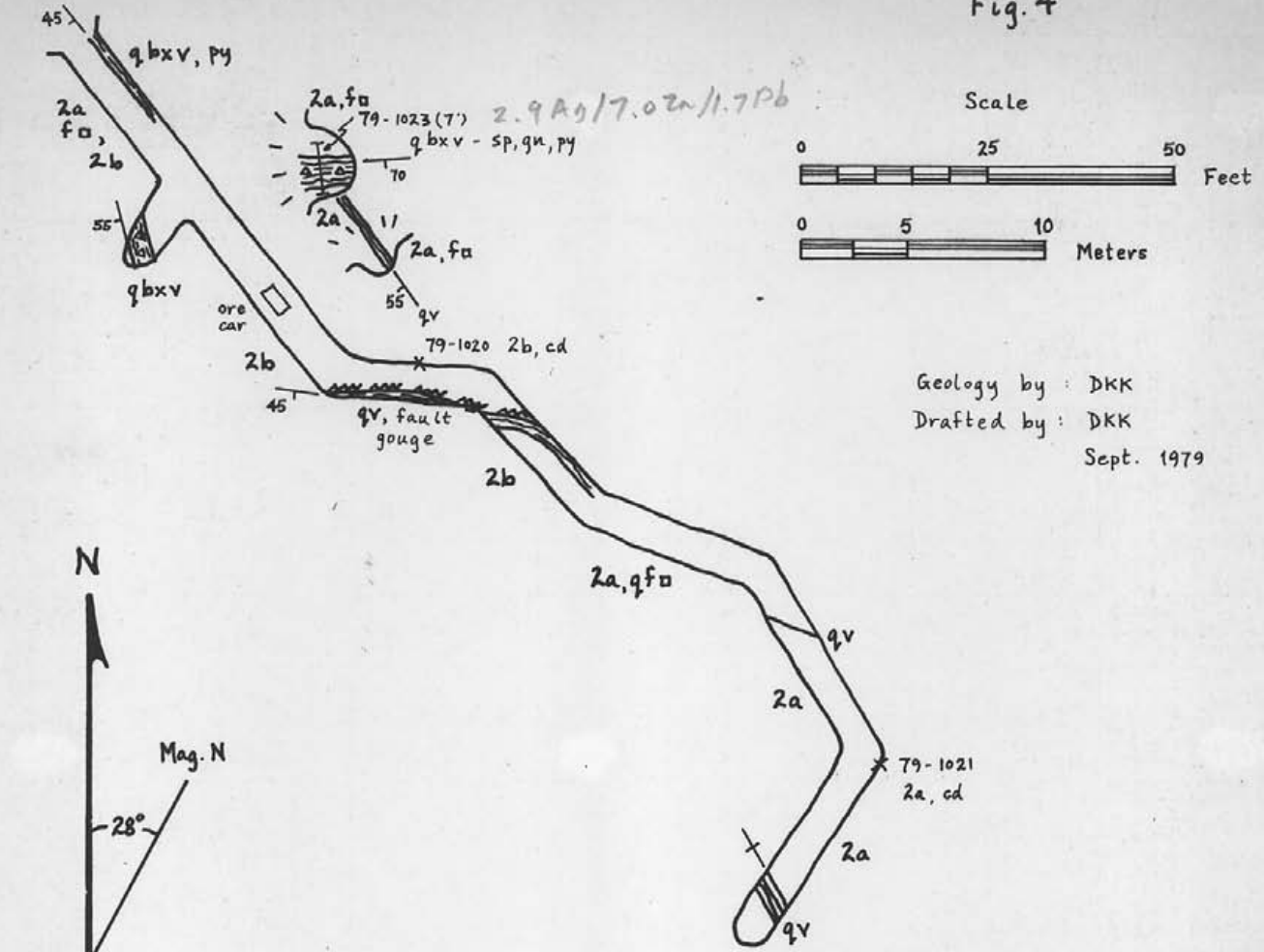
Drafted by : DKK 30 Aug. 1979





No. 1 Elev. 3300'

Fig. 4



LEGEND

- | | | | |
|----|---|-----|----------------|
| 2a | Felsic tuff and breccia | 60° | Strike and dip |
| 2b | Black shaley to silty lapilli tuff or breccia | bx | breccia |
| ~ | Fault | v | vein |
| ∩ | Open cut | tr | trace |
| □ | phenocrysts | py | pyrite |
| q | quartz | sp | sphalerite |
| f | feldspar | gn | galena |
| cb | carbonate | | |
| cd | chalcedony | | |
| ≡ | quartz vein | | |

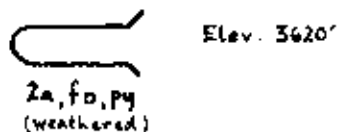
D. & U. KRETSCHMAR

OCEAN HOME EXPLORATION LTD.

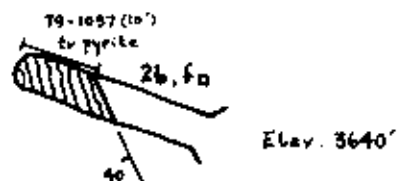
START ADITS
SLATE GROUP

NTS 104A/4W, 104B/1E STEWART, B. C.

BUSH SOUTH ADIT



BUSH NORTH ADIT

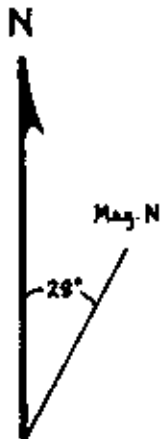
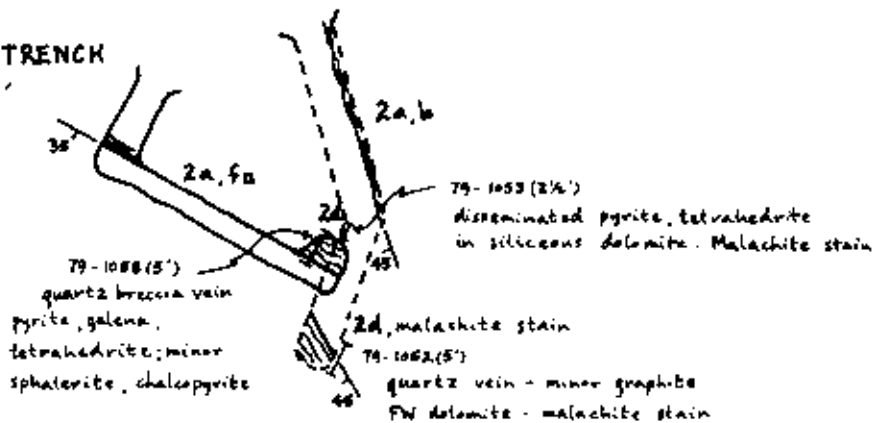


LAKESHORE ADIT

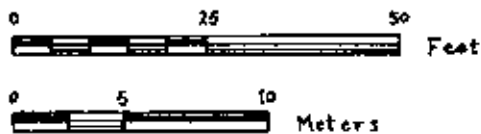
Elev. 3450'

LAKESHORE TRENCH

Elev. 3475'



Scale



Geology by: DKK

Drafted by: DKK

Sept 1979

Fig. 5

LEGEND

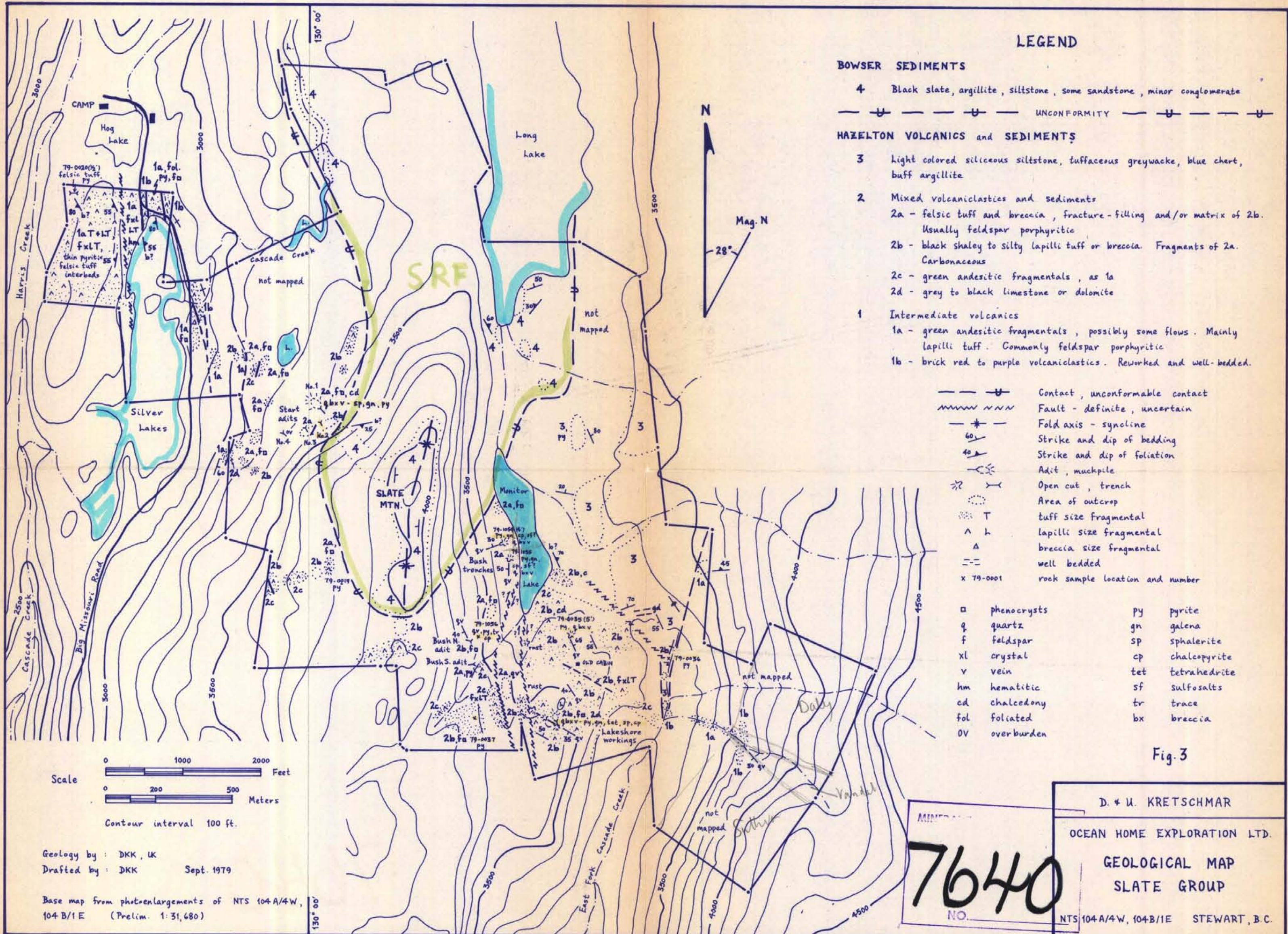
- 2a Felsic tuff and breccia
- 2b Black shaley to silty lapilli tuff or breccia
- 2d Grey siliceous dolomite, quartz phenocrysts
- Quartz vein
- Strike and dip
- phenocrysts
- f feldspar
- py pyrite

D. & U. KRETSCHMAR

OCEAN HOME EXPLORATION LTD.
LAKESHORE and BUSH ADITS
SLATE GROUP

NTS 104 A/4W

STEWART, B.C.



LEGEND

BOWSER SEDIMENTS

4 Black slate, argillite, siltstone, some sandstone, minor conglomerate

UNCONFORMITY

HAZELTON VOLCANICS and SEDIMENTS

- 3 Light colored siliceous siltstone, tuffaceous greywacke, blue chert, buff argillite
- 2 Mixed volcanoclastics and sediments
 - 2a - felsic tuff and breccia, fracture-filling and/or matrix of 2b. Usually feldspar porphyritic
 - 2b - black shaly to silty lapilli tuff or breccia. Fragments of 2a. Carbonaceous
 - 2c - green andesitic fragmentals, as 1a
 - 2d - grey to black limestone or dolomite
- 1 Intermediate volcanics
 - 1a - green andesitic fragmentals, possibly some flows. Mainly lapilli tuff. Commonly feldspar porphyritic
 - 1b - brick red to purple volcanoclastics. Reworked and well-bedded.

- — — — — Contact, unconformable contact
- ~~~~~ Fault - definite, uncertain
- * — — — — Fold axis - syncline
- 60 ↘ Strike and dip of bedding
- 40 ↘ Strike and dip of foliation
- — — — — Adit, muckpile
- ⊗ Open cut, trench
- Area of outcrop
- ⊗ T tuff size fragmental
- △ h lapilli size fragmental
- △ breccia size fragmental
- — — — — well bedded
- x 79-0001 rock sample location and number

- | | |
|---------------|------------------|
| □ phenocrysts | py pyrite |
| q quartz | gn galena |
| f feldspar | sp sphalerite |
| xl crystal | cp chalcopyrite |
| v vein | tet tetrahedrite |
| hm hematitic | sf sulfosalts |
| cd chalcedony | tr trace |
| fol foliated | bx breccia |
| OV overburden | |

Fig. 3

Scale
 0 1000 2000 Feet
 0 200 500 Meters
 Contour interval 100 ft.

Geology by : DKK, UK
 Drafted by : DKK Sept. 1979

Base map from photoenlargements of NTS 104A/4W, 104B/1E (Prelim. 1:31,680)

D. & U. KRETSCHMAR

OCEAN HOME EXPLORATION LTD.

7640

NO. _____

GEOLOGICAL MAP
SLATE GROUP

NTS 104A/4W, 104B/1E STEWART, B.C.