

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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PROSPECTING REPORT

1996

HOWE CLAIM GROUP

HOWE SOUND AREA

VANCOUVER MINING DIVISION

**NTS 92 G 11 W
(49° 34 ' N 123° 24' W)**

for

**THE NEPTUNE PARTNERSHIP
WEST VANCOUVER, B.C.**

by

J. H. RANDA

FILMED

June 1996

**GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT**

24,487

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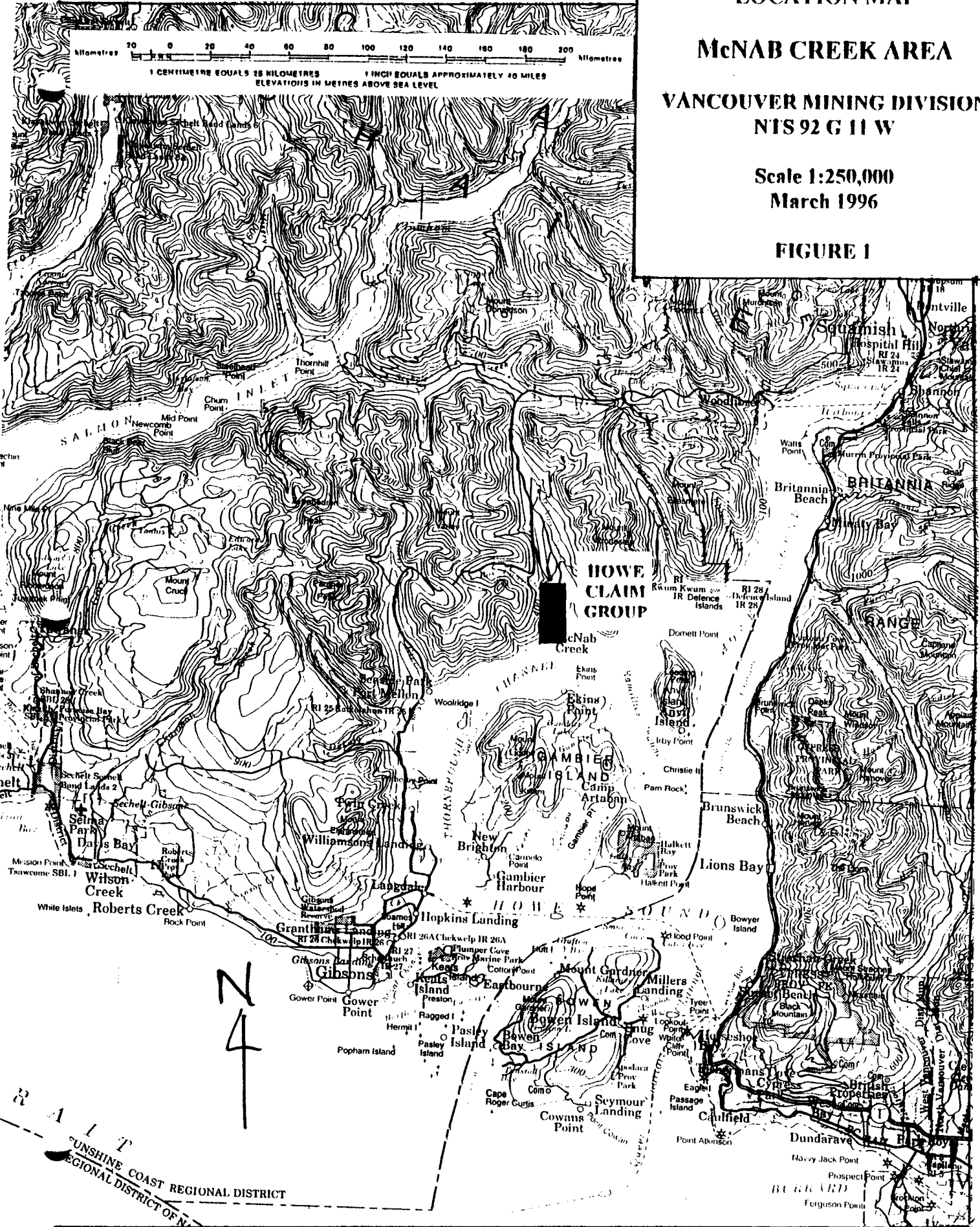
LOCATION MAP

McNAB CREEK AREA

VANCOUVER MINING DIVISION
NIS 92 G 11 W

Scale 1:250,000
March 1996

FIGURE 1



N
4

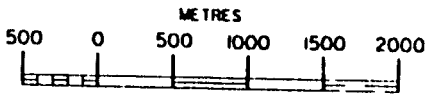
SUNSHINE COAST REGIONAL DISTRICT
REGIONAL DISTRICT OF NANAIMO

BURKARD
Ferguson Point

CLAIM MAP
HOWE CLAIM GROUP
McNAB CREEK AREA
VANCOUVER MINING DIVISION
NTS 92 G 11 W

Scale 1:50,000
 March 1996

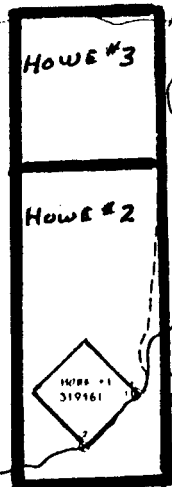
FIGURE 2



5493312

MIN. & PLACER RES.
 1/2 MILE EITHER SIDE
 B.C. REG. 10/90 90-016
 SUBJECT TO CONDITIONS

Box Canyon Cr.



McNab Creek

MINERAL RESERVE
 O/C 667 88-04-15
 SUBJECT TO CONDITIONS



MINERAL & PLACER RESERVE
 O/C 607, 85-04-16
 NO STAKING

5486976

PROPOSED VANCOUVER ISLAND NATURAL GAS PIPELINE R/W
 PORT MELLON

Stollerport Cr.

Blowden Cr.

Channel

Ekins Point

Ekins Pt.

Thornbrough

Woolridge

Passage

Gambier Island

M.B. 10 258264
 INXIV 1789

M.B. 1 1719
 258252

1.0 SUMMARY

The Howe #1, #2 and #3 Claims (13 units), located 35 kilometers northwest of Vancouver, British Columbia in the Vancouver Mining Division, were staked in 1993 and 1995 by and for J.H. Randa and David G.S. Purvis to cover an industrial mineral slate occurrence. Access to the claim group (adjacent to the CANFOR McNab Creek Logging Operation) across Howe Sound from Horseshoe Bay (West Vancouver) is normally gained via rental boat or water taxi.

Focus of the September 1995 and March 1996 Prospecting Programs was to further evaluate the old existing slate quarry, to explore for and delineate additional slate formation thought to exist to the north along strike from the Old Quarry adjacent to the Howe Sound shoreline. Samples of fresh slate for ASTM testing were gathered from the face of the old quarry and an area excavated by CANFOR to widen and extend their log dump work area, 450 metres distance north-easterly from the old quarry site. Traverses were carried out to the north along pre-existing logging roads and to the west of the Old Quarry site in order to establish the northerly and westerly perimeters of the slate formation. The formation was found to extend a minimum of 4.5 kilometers northerly from the Howe Sound shoreline and have a minimum east-west width of 500 meters with a persistent 90° (vertical) dip.

2.0 INTRODUCTION

This report covers work done in the form of prospecting, trail cutting, quarry clearing and selecting and assembling suitable slate material (for ASTM testing) on the Howe #1, #2 and #3 Mineral Claims. Work was carried out September 03, September 30, 1995 and from March 16 through March 24, 1996. A crew consisting of the owners of the claim group (J.H. Randa and D.G.S. Purvis) carried out the work based from a tent camp established on the Howe #1 Claim adjacent to the Old Quarry site.

2.1 LOCATION, ACCESS, PHYSIOGRAPHY

The Howe Claim Group (13 units) is located 35 kilometers north-west of Vancouver, British Columbia and seven kilometers north-east of the Port Mellon Pulp Mill in the Vancouver Mining Division (NTS 92 g 11 W). The claims are situated at Latitude 49° 34' N and Longitude 123° 24' W on Thornbrough Channel, Howe Sound, adjacent to McNab Creek. CANFOR Corporation's main line logging road runs north up the broad flat McNab Creek Valley on the eastern perimeter of the Claim Group from the Howe Sound shoreline (log dump) to the north-east

corner of the Howe #3 Claim. Access to the property is normally gained via rental boat or water taxi from Horseshoe Bay, West Vancouver. Elevations on the Claim Group rise from 0 at sea level to 1300 feet (396 meters) on the west boundary of Howe #2 and #3.

The Howe Claim Group covers mostly second growth forest, some of which is presently being logged. Old logging roads are still in evidence although not passable for vehicular travel without some upgrading. Off-road foot travel can be and frequently is difficult due to logging slash, thick underbrush and precipitous terrain. A high tension powerline passes through the property, approximately 300 meters north of, and parallel to, the Howe Sound shoreline.

CANFOR Corporation holds surface rights on three Land Lots included within the Howe Claim Group.

2.2 PROPERTY DEFINITION

The Howe #1, #2 and #3 Mineral Claims are located in the Vancouver Mining Division, Province of British Columbia, NTS 92 G 11 W. J.H. Randa and D.G.S. Purvis are the owners and operators of the Howe Claim Group.

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Date of Record</u>	<u>Expiry Date</u>
Howe #1	1	319461	July 17, 1993	July 17, 1998
Howe #2	8	339834	Sept. 15, 1995	Survey Pending
Howe #3	4	342428	Dec. 02, 1995	Survey Pending

2.3 PREVIOUS HISTORY

The Energy, Mines and Petroleum Resources Annual Reports indicate intermittent minor production for slate flagstone and roofing granules was carried out at the McNab Creek Slate Quarry by Richmix Clays Ltd. of Vancouver through the years 1954 to 1958 and 1962 through 1963. An approximate total of 13,000 tons was quarried and loaded directly onto scows for transshipment.

A Base Metal Exploration-Geochemical (Copper Molybdenum) Soil Survey was conducted for Silverado Mines Ltd. in 1979. This work was confined to an area near the upper reaches of McNab Creek, 6-8 kilometers to the north of the Howe Sound shoreline and the Old Quarry site.

2.4 1996 PROSPECTING PROGRAM

The 1996 Neptune Partnership Prospecting Program on the Howe Claim Group was carried out by a two-man crew consisting of J.H. Randa and D.G.S. Purvis. A water taxi service was utilized to transport crew and gear to the CANFOR Log Dump float and a rented canoe was used to move the camp equipment down the Howe Sound shoreline (approximately 300 meters) to the camp site.

The focus of the program was:

- A. To establish the westerly and northerly perimeters of the slate structure.

It was found that the western periphery of the slate zone grades progressively into narrow lenses interspersed with much wider areas of fine grit stone before contacting with diorite and granodiorite to the west of the claim group; the easterly side of the structure disappears into the low ground of the McNab Creek valley floor. The northern end of the structure has not been established to date but was found to extend to at least 4.5 kilometers northerly from the Howe Sound shoreline and Old Quarry Site. The width of the structure appears to maintain an approximate width of 500 meters with the dip being consistent at 90° (vertical).

- B. To find if there is a colour differential vis-a-vis the grey-black and black lustrous slate material presently known to exist.

No colours other than the grey-black to black lustrous slate have been found to date.

- C. To brush out and partially clear the vertical face of the Old Quarry Site.
To brush out and clear an old existing road from the campsite to the Old Quarry Site.
To establish, flag and clear a foot trail from the tent campsite to the CANFOR Log Dump work area.

These undertakings were completed.

- D. To select and collect competent slate material to be submitted for ASTM tests.

Approximately 125 kilograms of fresh competent cleavable quarry wallrock-slate was collected and bagged for transport to the West Vancouver home of the author. Ribbon-free material was selected for cutting and splitting into the required sized panels for ASTM testing by LEVELTON Associates (see Appendix A).

3.0 REGIONAL GEOLOGY

The General Geology of the McNab Creek area is outlined by:

GSC Open File Map No. 611
GSC Map 42-1963, 1386A
GSC Paper 90-1F, pp. 95-107
GSC Memoir No. 158

4.0 PROPERTY GEOLOGY AND OBSERVATIONS

The Howe Claim Group (Howe #1-3) covers, for the most part, a vertically (90°) dipping 360° striking slate formation in contact with a diorite-granodiorite formation on the south-west corner of the Howe #2 Claim.

In September of 1995 an initial prospecting trip to the Old McNab Creek Quarry (covered by the Howe #1 Claim) was made by Randa and Purvis in order to ascertain if the slate quarry had potential for size expansion. On making a 320 meter compass and chain traverse up-slope from the Howe Sound shoreline, it was found that the slate formation did extend for a minimum of 320 meters horizontally in width and 100 meters vertically from the Old Quarry site at the beach. A compass and chain traverse was also taken 280 meters north. Slate was found at that point but the line had to be abandoned due to impenetrable logging slash; however, the exercise did confirm that the Old Quarry was within a moderately-sized slate structure. Subsequently, the Howe #2 Claim was located to cover the strike of the slate zone. It was also discovered that CANFOR had excavated approximately 75 meters of slate formation (at an oblique angle of approximately 15° N.E. to strike) for an extension to their Log Dump work area.

Another trip was made to the McNab Creek area on September 30, 1995 with a Professional Photographer to have the slate quarry and log dump excavation photo-graphed. The area photographs will be used for marketing purposes, and to better illustrate topography and access.

The March Prospecting Program verified that the strike length of the slate formation extends much further (4.5 kilometers) than originally thought. Although the slate has a good black lustrous colour and a resonant sound when tapped, some material does contain ribbons, which are deemed deleterious, particularly for roofing tiles.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Most aspects of the 1995 and 1996 Prospecting Programs were considered to be successful and beneficial in that much useful information was attained and questions answered as to attitude and size of the slate formation, its juxtaposition to the topography and the existing road system. Some hands-on experience was also gained regarding the judgement of slate quality and grade.

To find viable zones of high quality slate within the structure, it is the writer's opinion that a large diameter near-horizontal drilling and/or mechanized (backhoe) trenching program will have to be carried out across the width of the formation to locate viable zones of high quality slate for exploitation.

6.0 REFERENCES

- EMPR AR 1947-221; 1954-A 177; 1955-92; 1956-150; 1957-78; 1958-87;
1962-148; 1963-139.
GSC Memoir No. 158.
GSC Map 42-1963; 1386A.
GSC OF 611.
GSC Paper 90-1F, pp. 95-107.
Ditson, G.M. (1978), *Metallogeny of the Vancouver-Hoper Area, B.C.*,
M.Sc. Thesis, University of British Columbia.
EMPR AR 1979, NAB 92G/11W
Assessment Report, No. 7935.
Minfile Number 092GNW009 1995.

7.0 STATEMENT OF EXPENDITURES

LABOUR

J.H. Randa	Sept. 03/95	1 day @ 250.00	250.00
D.G.S. Purvis	Sept. 03/95	1 day @ 200.00	200.00
J.H. Randa	Sept. 30/95	1 day @ 250.00	250.00
D.G.S. Purvis	Sept. 30/95	1 day @ 200.00	200.00
Andrew Lawrence	Sept. 30/95	1 day @ 108.00	108.00
J.H. Randa	Mar. 16-24/96	9 days @ 250.00	2,250.00
D.G.S. Purvis	Mar. 16-24/96	9 days @ 200.00	1,800.00

SAWING, SPLITTING SLATE RE: ASTM REQUIRED SPECIFICATIONS

J.H. Randa Apr. 1-2/96 1.5 days @ 250.00 375.00

REPORT AND DRAFTING

J.H. Randa June 21-24/96 3.5 days @ 250.00 875.00

TRANSPORTATION, VEHICLE AND BOAT 1,301.42

**MAPS, AIR PHOTOS, MARINE CHARTS, PHOTOGRAPHIC
SUPPLIES AND DEVELOPING 244.28**

WHOLE ROCK ANALYSIS, ASTM TESTING 438.70

REPORT TYPING AND EXPENSES 85.00

FUEL, GROCERIES, SUPPLIES AND SUNDRY EXPENSES 1,275.21

TOTAL EXPENDITURES 9,652.61

8.0 AUTHOR'S QUALIFICATIONS

I, J. H. RANDA, of West Vancouver, B.C., hereby certify:

- 1. that I reside at #106-1370 Duchess Avenue, West Vancouver, B.C. V7T 1H6;**
- 2. that I have been employed and self-employed as a Professional Prospector, Fieldman, Geophysical Operator, Contractor since 1957 in Ontario, Quebec, British Columbia, Yukon, S.W. U.S.A.**

1966-70	Fieldman, U.S. Smelting and Refining Ltd.
1972	Fieldman, ALRAE Engineering Ltd.
1973-78	Self-Employed Prospecting, mainly Placer
1979	Fieldman, Sawyer Consultants Inc.
1980-82	Field Manager, Westervelt Engineering Ltd.
1983-96	Self-Employed Prospecting and Contracting to: I. M. Watson & Assoc., Westervelt Engineering Ltd., Arctex Engineering Services

28/06/96



J. H. RANDA

APPENDIX A



LEVELTON ASSOCIATES CONSULTING ENGINEERS

RICHMOND VICTORIA NANAIMO COURTENAY SURREY ABBOTSFORD PRINCE RUPERT CALGARY

April 23, 1996

File: 196-351

Mr. David Purvis
1446 - 14th Street
West Vancouver, B.C.
V7T 2S3

PROJECT: Neptune Slate

SUBJECT: Investigation and Testing Services

Dear Mr. Purvis:

We are pleased to give you the results of testing undertaken by us on slate samples supplied by you. As requested we tested the samples to ASTM C120-90 and ASTM C121-90 — Roof Slate Designation.

SAMPLES

We were supplied with 17 samples in total of slate of nominal dimensions 102 mm x 110 mm of varying thicknesses (6 marked Quarry and 11 marked Log Dump) of which 14 were tested: seven for water absorption and seven for modulus of rupture. Note: from the samples supplied we were unable to determine the grain direction.

RESULTS

Results for the tests are given below.

ASTM C121-90 — STANDARD TEST METHOD FOR WATER ABSORPTION OF SLATE
TABLE 1

Sample Ref.	Dry Weight W1 [g]	Wet Weight W2 [g]	Absorption [%]
Q01	266.06	266.90	0.32 }
Q02	209.00	209.90	0.43 }
Q11	215.50	215.90	0.19 }
			0.31%
LD01	174.16	174.50	0.20 }
LD02	255.93	256.50	0.22 }
LD03	177.20	177.70	0.28 }
LD10	234.80	235.50	0.30 }
			0.25%
Average			0.28%

Mr. David Purvis/2

April 23, 1996
File: 196-351

ASTM C120-90 — STANDARD TEST METHOD OF MODULUS OF RUPTURE OF SLATE
TABLE 2

Sample Ref.	Span [mm]	Width [mm]	Thickness [mm]	Breaking Load [N]	Modulus of Rupture [MPa]
Q10	50.8	102	3.25	1540	109
Q12	50.8	102	5.60	1860	44
Q13	50.8	100	8.00	2968	35
LD04	50.8	103	6.55	3271	56
LD06	50.8	103	6.05	1994	40
LD12	50.8	101	8.80	4730	46
LD13	50.8	106	5.70	3769	83

We trust that we have complied with your requirements and we wish you good luck with your endeavours.

Yours truly,

B.H. LEVELTON & ASSOCIATES LTD.



I.M. Scott
Manager, Testing & Inspection
Construction Materials Division

IMS*jf

APPENDIX B



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: PURVIS, DAVID G.S.

1446 14TH ST.
WEST VANCOUVER, B.C.
V7T 2S3

Project :
Comments:

Page Number : 1
Total Pages : 1
Certificate Date: 14-JUN-95
Invoice No. : 19518756
P.O. Number :
Account : BVQ

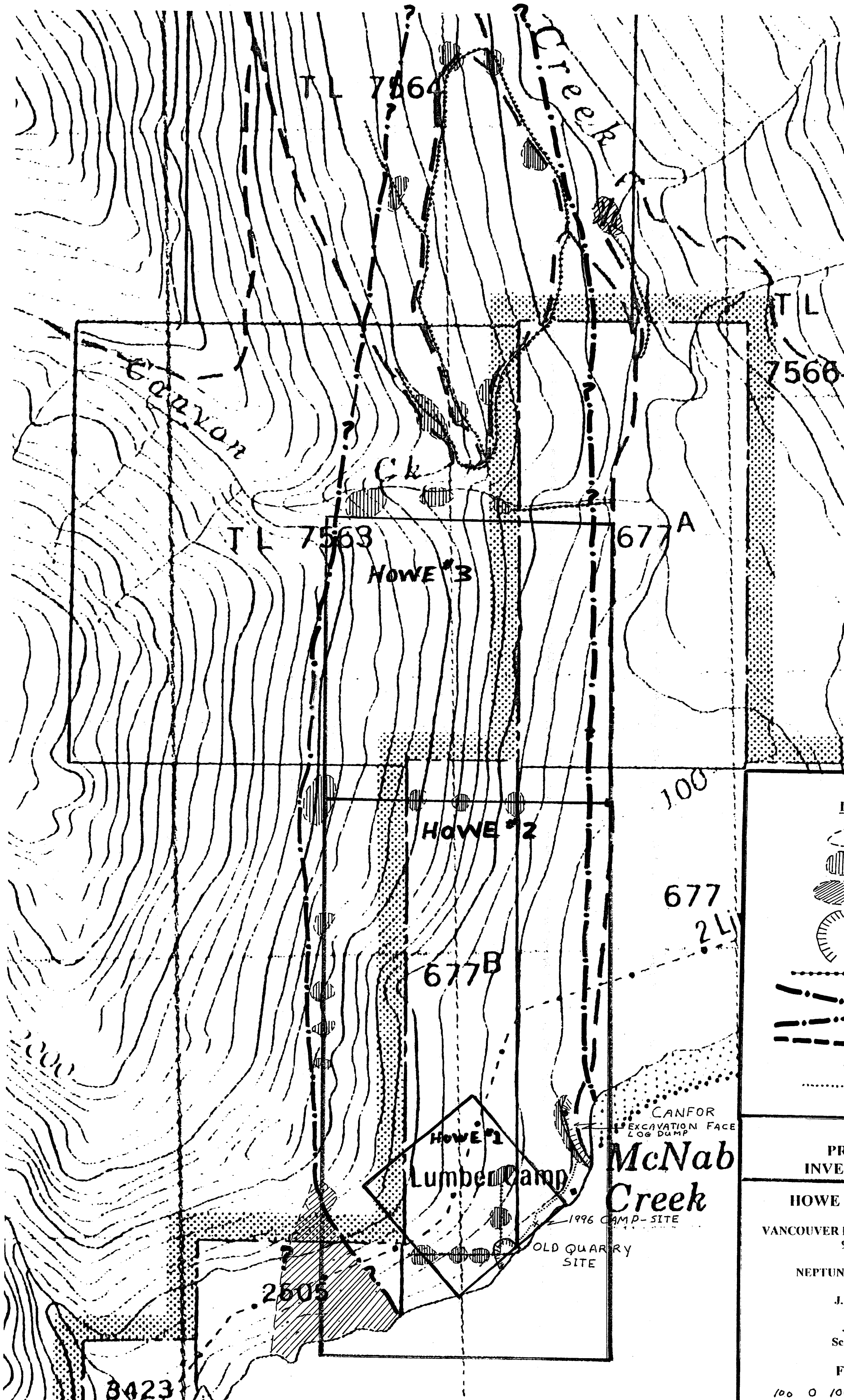
CERTIFICATE OF ANALYSIS

A9518756

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL	S %	C %
		XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	% Total	Total
SLATE-1	208 226	18.61	1.32	0.02	8.53	2.18	3.20	0.07	2.32	0.22	59.08	0.78	4.13	100.46	0.15	< 0.20

CERTIFICATION:

N
4



LEGEND

- OUTCROP
- SLATE
- DIORITE-GRANODIORITE
- OLD QUARRY FACE
- CANFOR EXCAVATION FACE
- TRAVERSE COURSE
- OUTLINE OF SLATE FORMATION
- LOGGING ROAD
- 1996 CAMP SITE
- TRAIL

PROSPECT INVESTIGATION

HOWE CLAIM GROUP

VANCOUVER MINING DIVISION, B.C.
92 G 11 W

NEPTUNE PARTNERSHIP

J.H. RANDA

June 1996
Scale 1:10,000

FIGURE 3

