

6414

REPORT ON

WORK DONE ON
GEM MINERAL CLAIM, 1977
92-F-10E Lat. 49°43'N Long. 124°34' W

by

A.H. Manifold, P. Eng.

Burnaby, B.C.
Sept. 20, 1977

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. _____

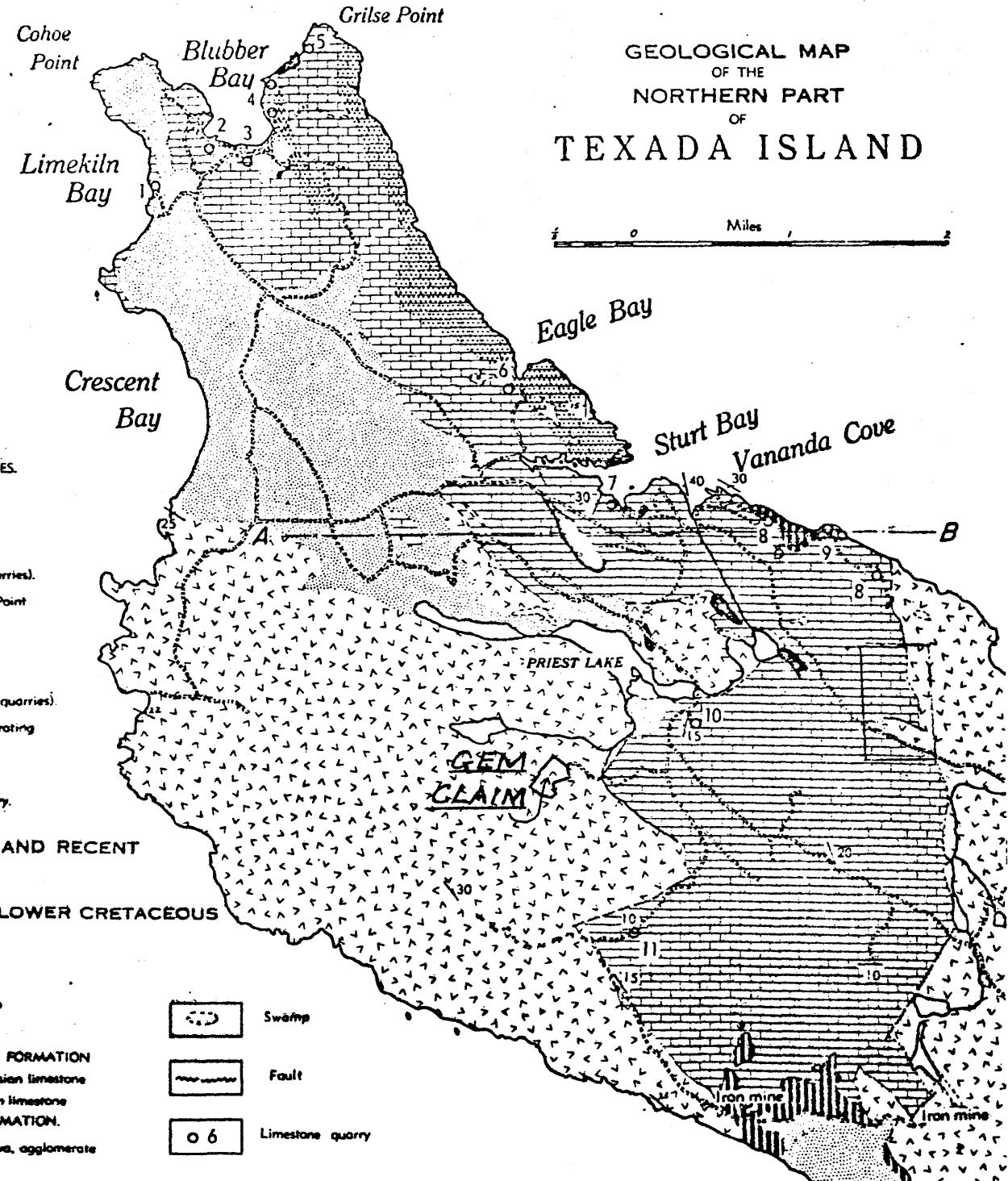
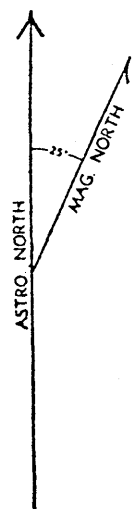
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ILLUSTRATIONS

	<u>Scale</u>
Location Map	1:50,000
Area Geology	1 in. = 1 mi.
Copper in Soils	1:2000
Zinc in Soils	1:2000

GEOLOGICAL MAP OF THE NORTHERN PART OF TEXADA ISLAND



LIMESTONE QUARRIES.

1. Limekiln Bay.
2. Pacific Lime Co.
3. Fogh property
4. B.C. Cement Co. (old quarries).
5. B.C. Cement Co. (Grilse Point Quarry).
6. McMillan Lime Co.
7. Powell River Co.
8. Beale Quarries, Ltd. (old quarries).
9. Beale Quarries, Ltd. (operating quarry).
10. Johnson Quarry.
11. S. Beale Blackrock Quarry.

PLEISTOCENE AND RECENT

Drift, alluvium

JURASSIC OR LOWER CRETACEOUS

INTRUSIVES
 Quartz diorite

Diorite, gabbro

TRIASSIC

MARBLE BAY FORMATION

Chiefly magnesian limestone

Chiefly calcium limestone

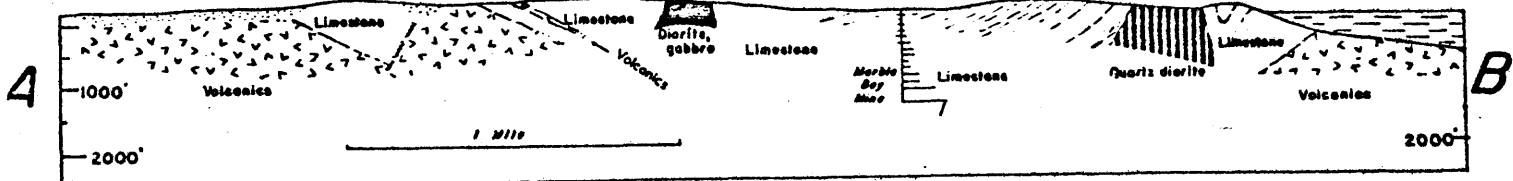
TEXADA FORMATION.

Greenstone, lava, agglomerate

Swamp

Fault

Limestone quarry



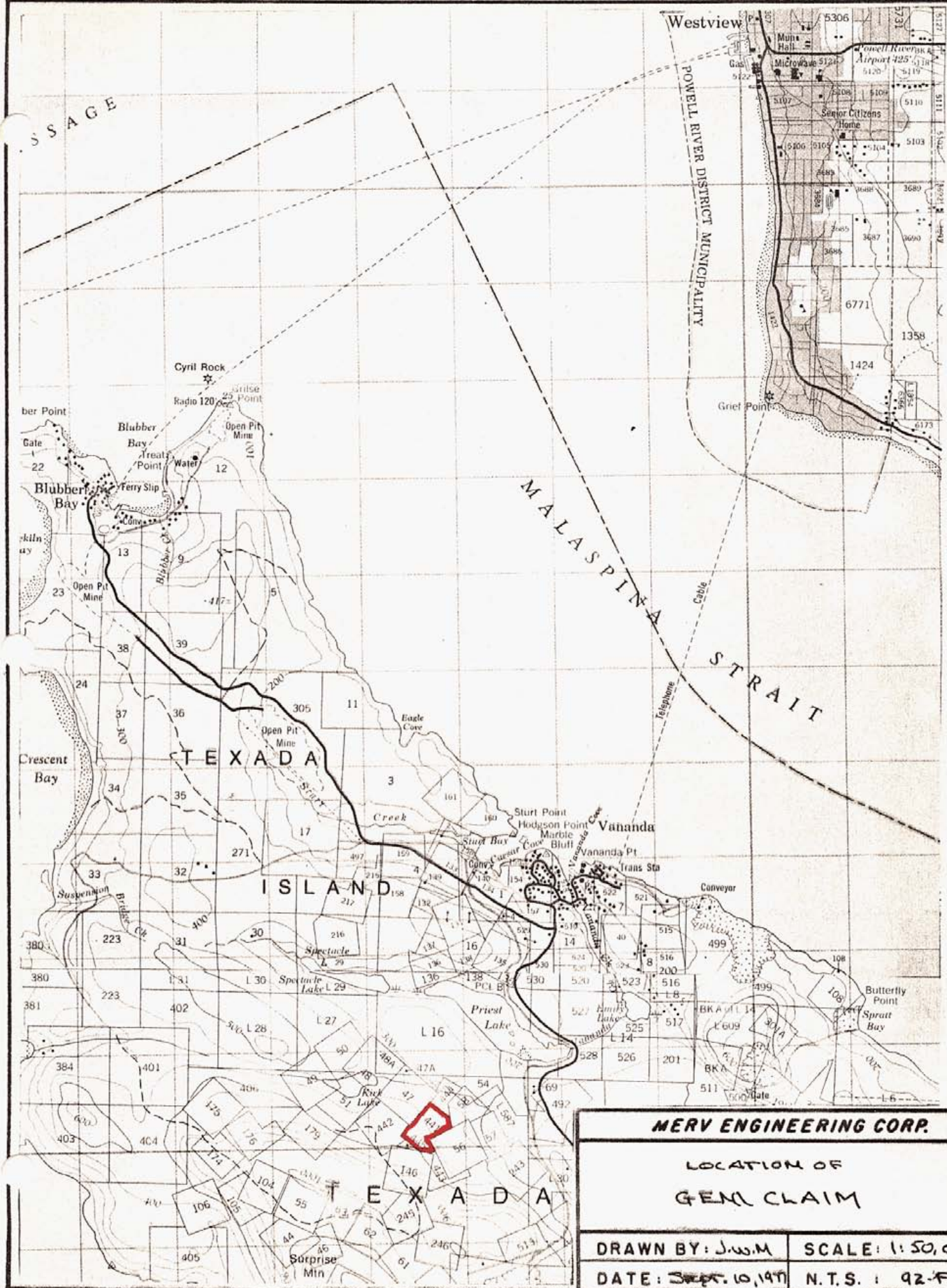
Section on A-B of figure 7

MERV ENGINEERING CORP.

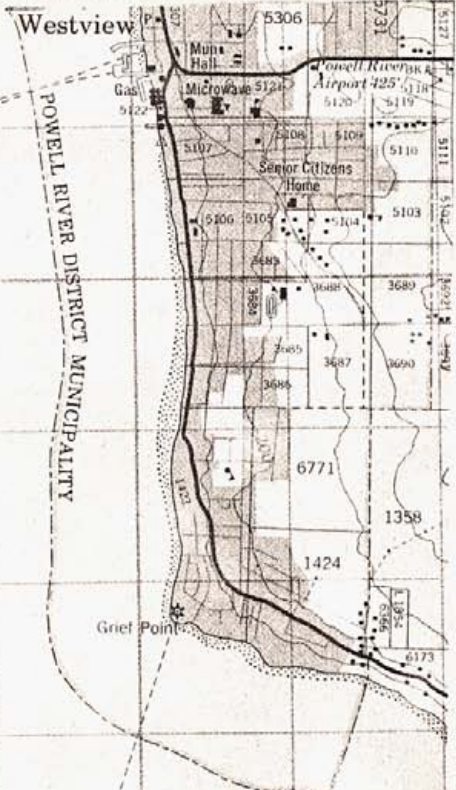
**AREA GEOLOGY
GEM CLAIM**

DRAWN BY: A.H.M. SCALE: 1" = 1 MI.

DATE: Sept 20/77 N.T.S. :



SSAGE



POWELL RIVER DISTRICT MUNICIPALITY

MALASPINA STRAIT

Cyril Rock
Radio 120

ber Point

Blubber Bay

Open Pit Mine

Blubber Bay

Blubber Bay

TEXADA

ISLAND

Crescent Bay

Suspension

Surprise Min

Sturt Point
Hodgson Point
Marble Bluff

Vananda

Vananda Pt

Trans Sta

Conveyor

Butterfly Point

Spratt Bay

TEXADA

MERV ENGINEERING CORP.

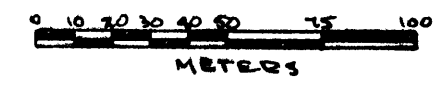
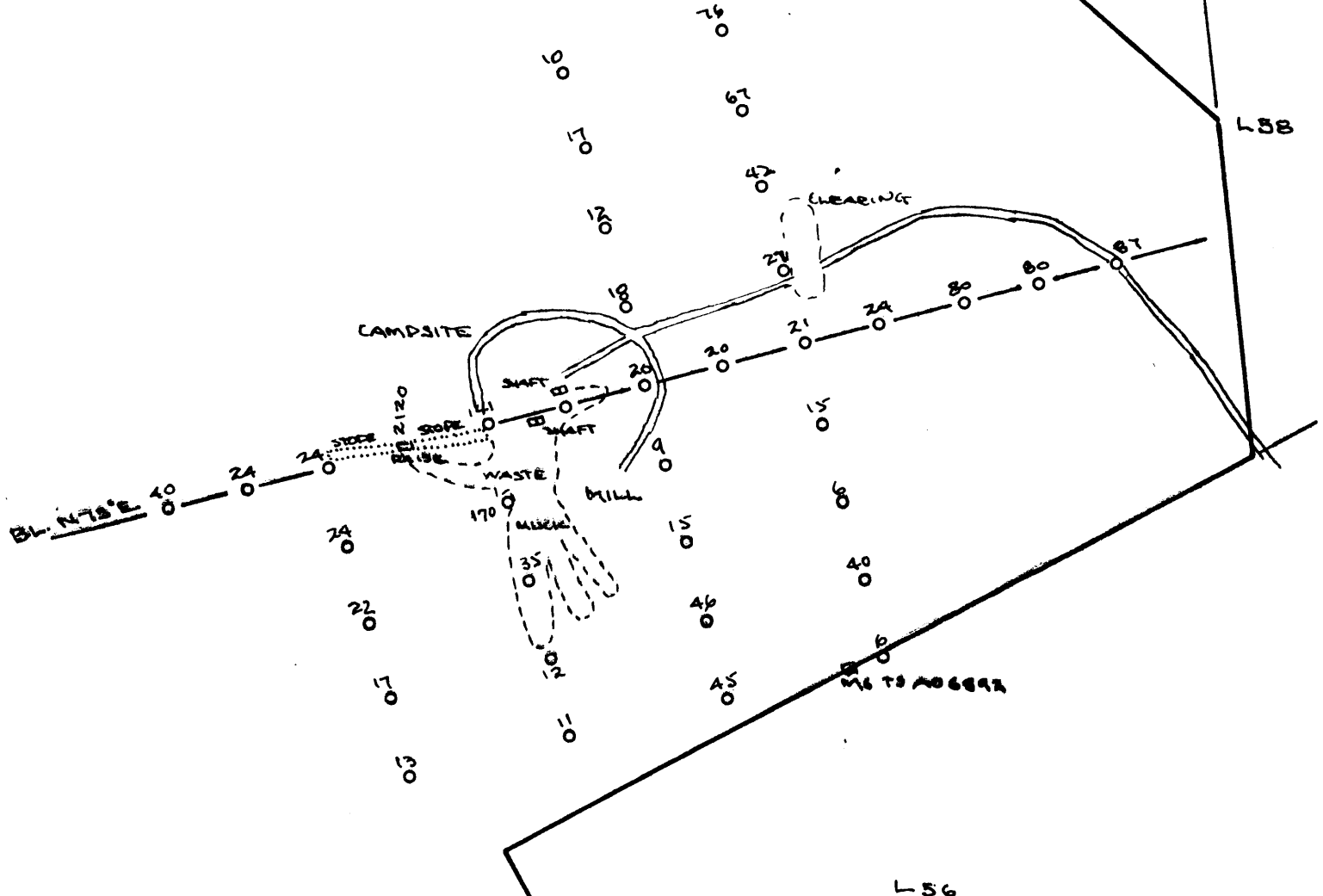
LOCATION OF
GENL CLAIM

DRAWN BY: J.W.M	SCALE: 1:50,000
DATE: Sept. 10, 1977	N.T.S.: 92-F-10

GEM L441

L444

L58



MERV ENGINEERING CORP.

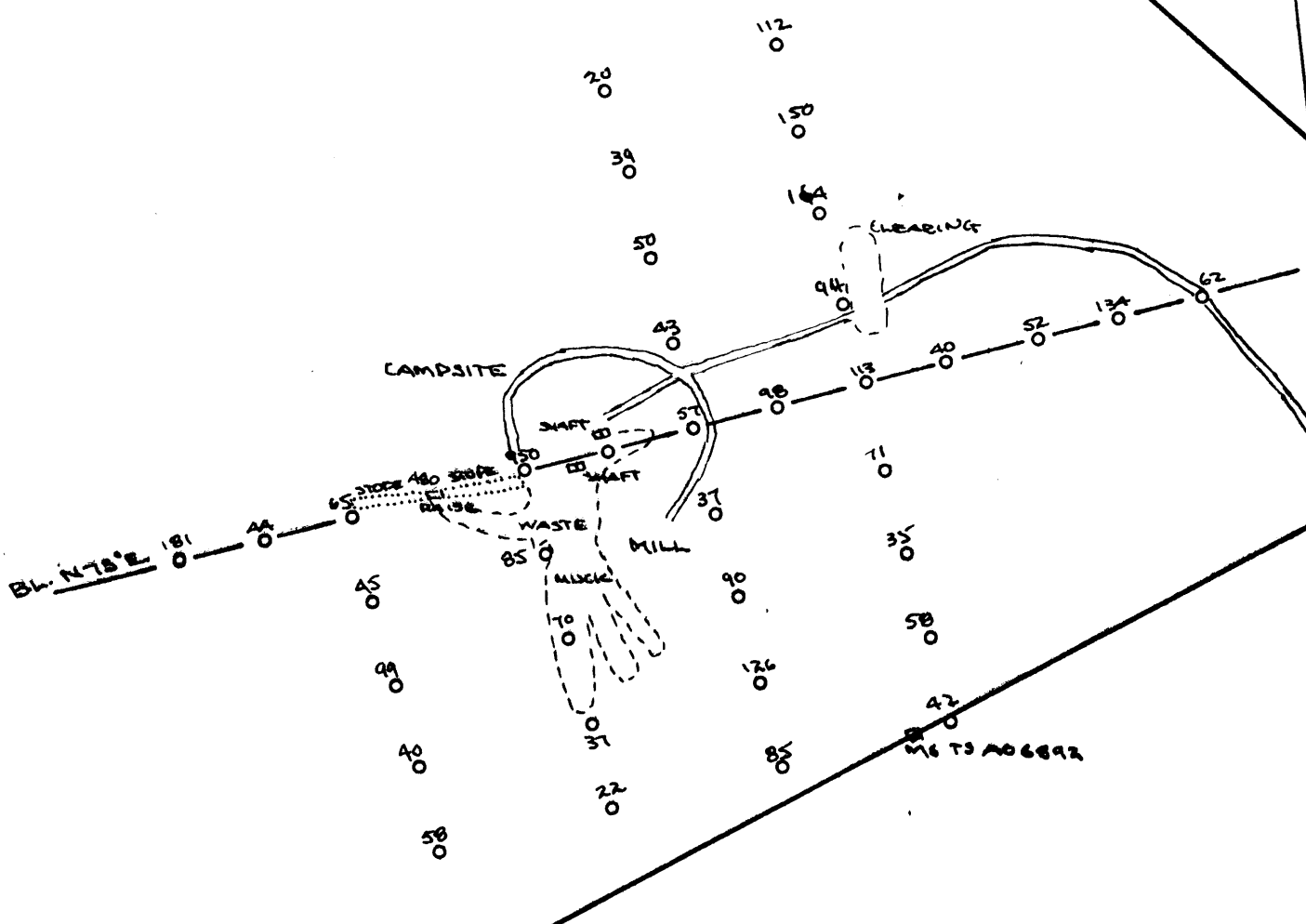
GEM CLAIM
COPPER IN SOILS

DRAWN BY: J.W.M	SCALE: 1:2000
DATE: SEPT. 10, 1977	N.T.S. : 92 F'10

GEM L441

L444

L58



L56



L146

MERY ENGINEERING CORP.	
GEM CLAIM	
ZINC IN SOILS	
DRAWN BY: J.W.M	SCALE: 1:2000
DATE: SEPT. 10, 1977	N.T.S. : 92 F/10

INTRODUCTION

The following report has been prepared to fulfill the requirements of the Mineral Act governing the filing of geochemical work for assessment credit.

The report is based on a review of available reports listed in Appendix I and examination and work done in the area of the shafts and underground workings on August 27, 28 and 29, 1977.

SUMMARY & CONCLUSIONS

Between August 27 and August 29 J.W. MacLeod P. Eng, F.J. Jackson and A.H. Manifold P. Eng., carried out a geochemical survey in the vicinity of the shafts and underground workings on the GEM claim, Lot No. 441.

The high copper and zinc readings are anomalous over the vein near the shaft. No parallel structures are shown by the survey but the higher copper values at the east end of the base line may indicate a continuation of the vein. More soil samples should be taken in this area possibly followed by trenching.

PROPERTY

The GEM Mineral Claim, lot 441, is a reverted Crown-Granted Mineral Claim applied for and obtained by William K. Gordon, Nanaimo, B.C. After the death of Mr. Gordon the claim was duly registered in the name of his wife Eleanor Gordon.

HISTORY

Gold-bearing quartz veins in the area were first discovered in 1894. Between 1923 and 1928 various companies performed most of the work done on the property. During that time a shaft was sunk to 150 feet and drifts put in on the 50 foot and 100 foot levels. A small amalgamating mill was built and operated one season unsuccessfully.

In 1928 the workings were unwatered and underground exploratory work done but no commercial ore was indicated. Little work has been done since.

LOCATION AND ACCESS

The GEM claim is located about 2.5 miles south-
~~east~~^{west} of Vananda on Texada Island.

The property may be reached from Vananda by means of a logging road that branches off the quarry road used by Ideal Cement Company.

GEOLOGY

The underlying rock is a porphyry with clusters of feldspar phenocrysts. About one mile to the east the porphyry is in contact with Triassic Marble Bay limestone.

Mineralization occurs in a steeply dipping quartz vein varying in width from two to four feet. According to old reports there were some high but very erratic gold values. Occurrences of pyrite and minor chalcopyrite, pyrrhotite, arsenopyrite and galena were mentioned in the reports but only pyrite and chalcopyrite were observed by the author.

GEOCHEMISTRY

Depth of overburden varies considerably and there are several locations of rock outcrop with little soil development in these areas.

While the area in general was not favorable for geochemistry it was thought a soil survey for copper or possibly zinc would indicate any parallel vein or extensions of the vein previously mined.

RESULTS AND RECOMMENDATIONS

Both the copper and zinc values were anomalous over the vein in the stoped area.

No parallel structures were indicated. Some copper values at the east end of the base line are weakly anomalous and may indicate a continuation of the vein to the east. More soil sampling is recommended in this area.

Respectfully submitted,



A.H. Manifold, P. Eng.

Vancouver, B.C.
September 19, 1977

APPENDIX I

REFERENCES

(1) Report of the Minister of Mines of British
Columbia.

a) 1923

b) 1924

c) 1925

d) 1926

e) 1927

f) 1928

EXPENDITURES

J.W. MacLeod P. Eng.	3 days @ \$100/day =	\$300.00
F.J. Jackson	2 days @ \$ 50/day =	\$100.00
A.H. Manifold P. Eng.	3 days @ \$100/day =	\$300.00
sample analyses - Vangeochem Lab.....		\$ 75.60
Transportation - 214 mi. @ 15¢/mi.....		\$ 32.10
ferries - Horseshoe Bay - Westview -		
Blubber Bay return.....		\$ 42.20

Total	\$849.90
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APPENDIX II



VANGEOCHEM LAB LTD.

986-5211

604-~~986-5211~~

1521 PEMBERTON AVE., NORTH VANCOUVER, B.C.
CANADA V7P 2S3

IN ACCOUNT WITH:

Merv Engineering
#333 - 885 Dunsmuir Street
Vancouver, B C V6C 1N5

INVOICE: 4343

DATE: Sept. 8, 1977

TERMS: NET 21 DAYS

FOR REPORT

77 60 010
Job #770170

PROJECT:

ORDER NO.

36 soil samples for preparations	@\$0.35	\$ 12.60
36 trace analyses for Cu,Zn	@\$1.75	\$ 63.00
	Total	<u>\$ 75.60</u>

APPENDIX III

CERTIFICATE

I, Albert H. Manifold, of 1620 Howard Avenue,
in the municipality of Burnaby, in the Province of
British Columbia,

DO HEREBY CERTIFY:

1. That I am a registered Professional Engineer in
the Province of British Columbia.
2. That I am a graduate of the University of Alberta
with the degree of B.Sc. in Mining Engineering
and of the University of British Columbia with
the degree of M.A. Sc. in Geological Engineering.
3. That I have actively practiced my profession
since graduation in 1947.
4. That this report is based on a review of the
data listed in Appendix I and a visit to the
property on August 27, 28 and 29, 1977.



A. H. Manifold

A.H. Manifold, B.Sc.,

M.A. Sc., P. Eng.

A. H. Manifold

Sept. 20, 1977



VANGEOCHEM LAB LTD. 1521 PEMBERTON AVE., NORTH VANCOUVER, B.C., CANADA

986-5211
604-~~00801111~~

V7P 2S3

September 13, 1977

TO: Merv Engineering Ltd.,
333 - 885 Dunsmuir Street,
Vancouver, B. C. V6C 1N5

FROM: Vangeochem Lab Ltd.,
1521 Pemberton Avenue,
North Vancouver, B. C. V7P 2S3

SUBJECT: Analytical procedure used to determine hot acid soluble Cu and Zn
in geochemical silt and soil samples.

Re: Geochemical Analytical Report # 77-60-010, September 6, 1977

1. Sample Preparation

- (a) Geochemical soil or silt samples were received in the laboratory in wet-strength $3\frac{1}{2} \times 6\frac{1}{2}$ Kraft paper bags.
- (b) The wet samples were dried in a ventilated oven.
- (c) The dried soil and silt samples were sifted by using a shaking machine with 80-mesh stainless steel sieves. The plus 80-mesh fraction was rejected and the minus 80-mesh fraction was transferred into a new bag for analysis later.

2. Methods of Digestion

- (a) 0.50 gram of the minus 80-mesh samples was used. Samples were weighed out by using a top-loading balance.
- (b) Samples were heated in a sand bath with nitric and perchloric acids (15% to 85% by volume of the concentrated acids respectively).
- (c) The digested samples were diluted with demineralized water to a fixed volume and shaken.


.....2

APPENDIX IV

3. Method of Analysis

Cu and Zn analyses were determined by using a Techtron Atomic Absorption Spectrophotometer Model AA4 or Model AA5 with their respective hollow cathode lamps. The digested samples were aspirated directly into an air and acetylene flame. The results, in parts per million, were calculated by comparing a set of standards to calibrate the atomic absorption unit.

4. The analyses were supervised or determined by Mr. Conway Chun and the laboratory staff.



Eddie Tang C.E.T.
VANGEOCHEM LAB LTD.

ET:mb



VANGEOCHEM LAB LTD.
1521 PEMBERTON AVE.,
NORTH VANCOUVER, B.C.,
CANADA V7P 2S3

TELEPHONE: 988-2072
AREA CODE: 604-986-5211

• Specialising in Trace Elements Analyses •

Certificate of Geochemical Analyses

-IN ACCOUNT WITH-
Merv. Engineering
333 - 885 Dunsmuir St.
Vancouver, B.C. V6C 1N5
Attention:

Report No: 77 60 010 Page 1 of 1
Samples Arrived: Sept. 2, 1977
Report Completed: Sept. 6, 1977
For Project:
Analyst: E.T., D.AU.
Invoice #4343 Job# 77 170

Sample Marking	Cu ppm	Zn ppm			
0 + 00	141 141	950			
50	20	57			
0 + 75	20	98			
1 + 00	21	113			
25	24	40			
50	80	52			
1+ 75	80	134			
2 + 00	87	62			
BL 0 + 25 W	2120	480			
50	24	65			
0 + 75	12	44 44			
BL 1 + 00 W	40	181			
0 + 00 0 + 25 S	170	85			
0 + 50	35	70			
0 + 75	12	37			
0 + 00 1 + 00 S	11	22			
1 + 00 E 0 + 25 S	15	71			
0 + 50	6	35			
0 + 75	40	58			
1 + 00 E 1 + 00 S	6	42			
E 1 + 00 N 0 + 25	27	94			
0 + 50	42	160			
0 + 75	67	150			
E 1 + 00 N 1 + 00	76	112			
E 0 + 50 N 0 + 25	18	43			
0 + 50	12	50			
0 + 75	17	39			
E 0 + 50 N 1 + 00	10	20			
E 0 + 50 S 0 + 25	9	37			
0 + 50	15	90			
0 + 75	46	126			
E 0 + 50 S 1 + 00	45	85			
0 + 50 W 0 + 25 S	24	45			
0 + 50	22	99			
0 + 75	17	40			
0 + 50 W 1 + 20 S	13	58			

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REMARKS:

Signed: *[Signature]*

% Mo x 1.6683 = % MoS₂ 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million
All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.