

SAMPLING REPORT
by E. W. YARROW

HUDSON BAY EXPLORATION AND DEVELOPMENT COMPANY LTD

BISMARCK GROUP
SLOCAN MINING DISTRICT

Latitude $49^{\circ}53'$ Longitude $117^{\circ}06'$

OWNER: E. DENNY, Nelson, B.C.

July 16, 1980

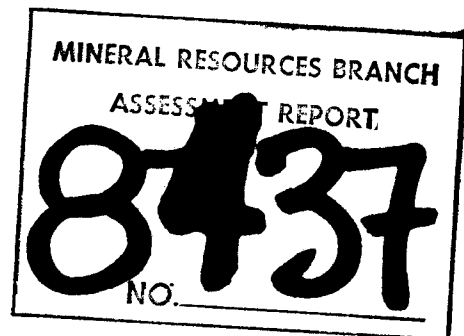


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Assay certificates.		

INTRODUCTION

On June 17, 1980 E. W. Yarrow of Hudson Bay Exploration and Development Company Limited along with E. Denny conducted an examination of Mr. Denny's claim group situated southwest of Kaslo, B.C. In the course of examination of the property considerable time was spent in sampling old workings. This is a report on that sampling together with a statement of expenditures which is hereby submitted for assessment purposes.

LOCATION AND ACCESS

The property is located within the Slocan area of south eastern B.C. approximately 48 air kilometers north of Nelson. Latitude $49^{\circ}52'$, Long. $117^{\circ}08'$ NTS Map 82-F.

Access is via paved road to Kaslo and then 4.8 kilometers west on the Kaslo-New Denver Highway to the Keen Creek turnoff. From here a good gravel road twelve kilometers in length gains access to the property. There is a short spur road off the Keen Creek road to the property which requires upgrading.

CLAIMS - see attached claim map.

Mr. Denny holds reverted crown grants:

<u>Claim Name</u>	<u>Grant No.</u>	
Crown Point	L5297	<i>E.D.</i> Bismark #1 1780
Full Rig	L5296	
Gold Cure Fraction	L5195	
Gold Cure	L5294	
Bismark Fr	1258	
Mountain Good	L11274	
Highland Laddie	L11275	<i>E.D.</i>
<i>Bismark</i>	L11273	

GEOLOGY - see Plate I

Regionally the property lies within the Omineca Crystalline Belt. The Slocan district is underlain by a thick package of Triassic aged sediments known as the Slocan Group. This sequence unconformably overlies the Lower Triassic Kaslo series and all have been intruded by Nelson batholithic rocks. The property is underlain by a northeasterly striking belt of Slocan sediments which appear to have been folded into a tight upright syncline. These sediments are flanked by intrusive rocks of the Nelson Batholith. A lode or lode system

has been traced by surface expression, geological interpretation and underground work for three (plus) miles and appears conformable with the enclosing sediments. Mr. Denny's property occupies the northern known extremity of this lode.

In underground and surface workings sphalerite, galena, pyrite was observed in narrow shear like structures that appear conformable.

SAMPLING - see Plate 2

Sampling was aimed at determining the potential of the country rocks adjacent to the vein for silver, zinc and lead. Most of the sampling was conducted in and adjacent to existing old workings and consisted of continuous chip sampling and grab sampling. Sample locations are shown on Plat 2 and 3 and the following is a tabulation of sample results.

<u>Sample No.</u>	<u>Method</u>	<u>Width(m)</u>	<u>Description</u>	<u>Results</u>		
				<u>Ag oz/t</u>	<u>Zn %</u>	<u>Pb %</u>
1175	Chip	.6	Iron Stain Lmst	.12	.53	.01
1176	Grab	-	Hangwall lmst	.20	.07	.03
1177	Chip	.4	Zone fine sphalerite	59.50	17.10	1.58
1178	Chip	.3	" " "	2.78	1.18	.12
1179	Chip	.3	Footwall	1.86	.62	.21
1180	Chip	1.6	Zone	.20	.05	.02
1181	Chip	1.0	Gossan-gouge	.08	.04	.01
1182	Chip	.6	Hangwall lmst	.15	.07	.01
22293	Chip	1.0	(surface) Iron stain shale	.45	.07	.03
22294	Chip	.3	Lmst-iron stain	9.72	3.48	.16
22295	Chip	.3	Offshoot of vein	7.44	1.34	.12
22296	Grab	-	Zone	8.08	2.68	.06
22297	Chip	.3	Zone-Galena observed	36.20	1.98	3.08
22298	Chip	.3	Well Fract lmst in zone	2.35	.14	.01
22299	Chip	1.1	Zone	5.58	1.73	.04
22300			Footwall lmst	.04	.01	.01
Y14-17/06				.07	.01	.01

In addition the following samples were done for rock geochemistry

Y16	620 ppm Pb	6.1 ppm Ag	1.62% Zn
Bismark 1	140 ppm Pb	7.9 ppm Ag	66 ppm Zn
2	2.82% Pb	4.12 oz/t Ag	2500 ppm Zn
3	78 ppm Pb	1.0 ppm Ag	146 ppm Zn

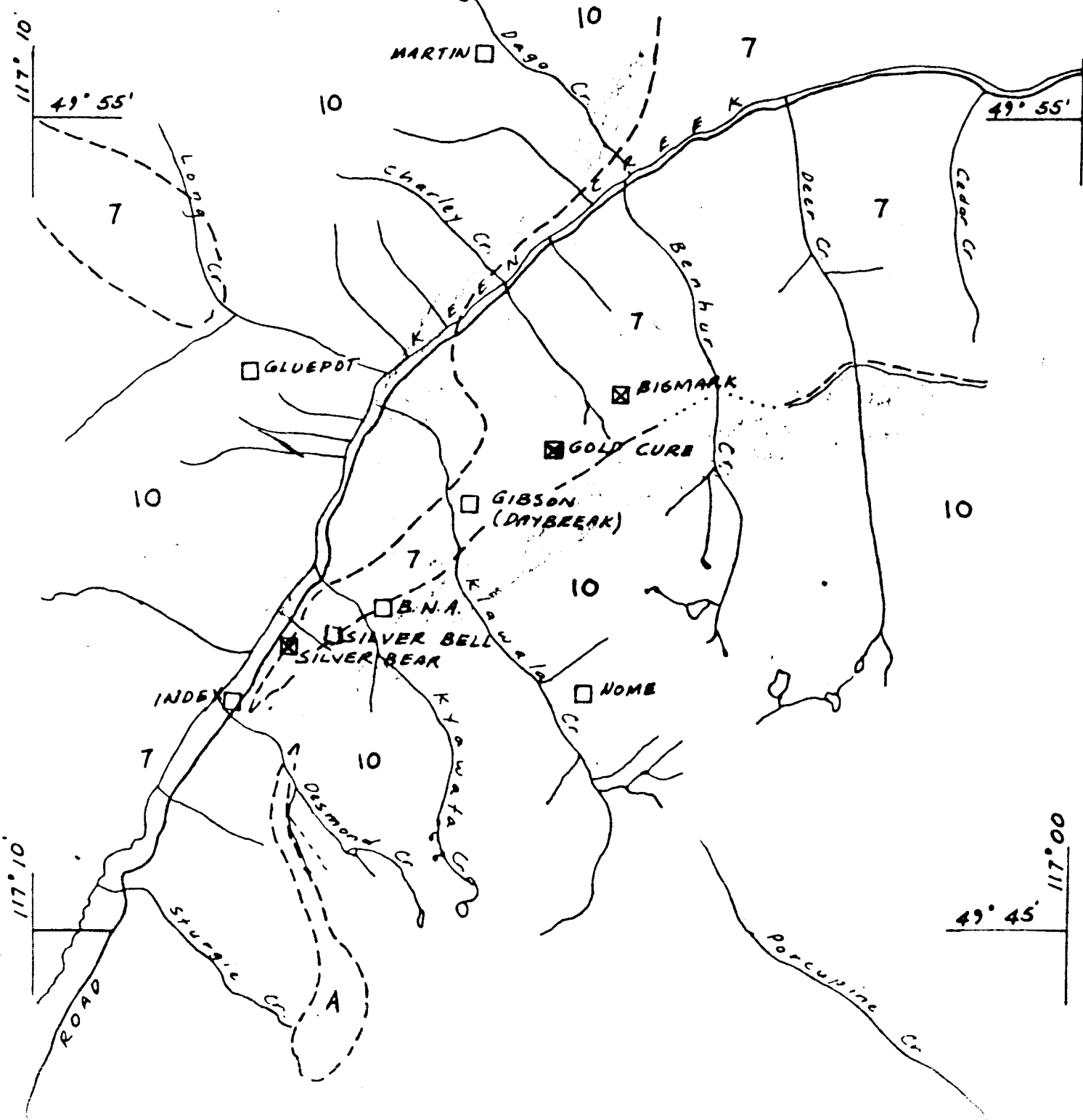
STATEMENT OF EXPENDITURES

Geologist's Time - 1.6 Man days (including report writing)	\$ 183.00
Helicopter Time	244.75
Assaying Costs - see attached statement	277.50
	<hr/>
	\$ 705.25
	<hr/> <hr/>

Edward W. Yarrow

EDWARD W. YARROW

Sr. Geologist



POST-TRIASSIC

- 13 Granite, syenite, granodiorite, quartz diorite and their porphyritic and felsitic equivalents; zones of dykes or sills are represented by dots
- 12 A complex of coarse (pegmatitic) granite, fine to medium gneissic granite, and inclusions of Precambrian rocks
- 11 Granite and granodiorite
- 10* Porphyritic granite
- 9 Crushed, mostly porphyritic, granite
- 8 Gneiss (granitized pre-batholithic rocks), crushed granite, and masses of partly altered pre-batholithic rocks

MESOZOIC

TRIASSIC

- SLOCAN SERIES
 - 7 Slate, argillite, limestone, quartzite, and tuffaceous sediments
NOTE.—Limestone shown in structure section thus: - - - - -
- KASLO SERIES
 - 6 Serpentine
 - 5 Extrusives (andesite and dacite) and related intrusives; some intercalated, tuffaceous sediments

TRIASSIC AND UPPER CARBONIFEROUS MILFORD GROUP

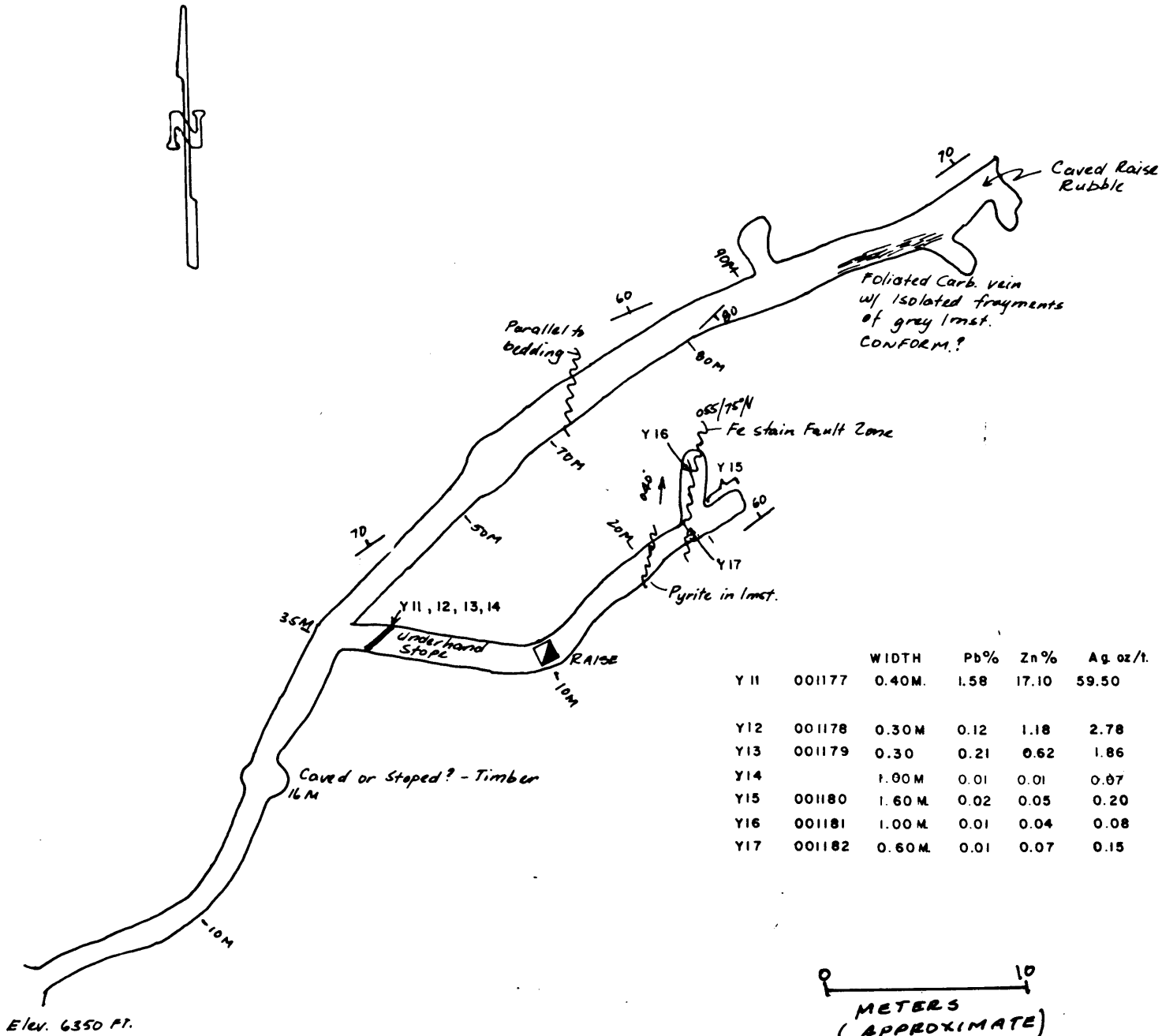
- 4 Chert (chiefly) traversed by a basic dyke
- 3 Slate, argillite, quartzite, chert, and limestone

MESOZOIC AND PALEOZOIC

NELSON BATHOLITH

A Schists, limestone and tuff probably

☒ E. DENNY'S PROPERTIES



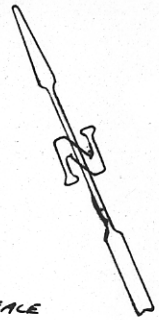
		WIDTH	Pb%	Zn%	Ag oz/t.
Y 11	001177	0.40M.	1.58	17.10	59.50
Y12	001178	0.30M	0.12	1.18	2.78
Y13	001179	0.30	0.21	0.62	1.86
Y14		1.00M	0.01	0.01	0.07
Y15	001180	1.60M.	0.02	0.05	0.20
Y16	001181	1.00M.	0.01	0.04	0.08
Y17	001182	0.60M.	0.01	0.07	0.15

BISMARCK PROPERTY
LOWER ADIT

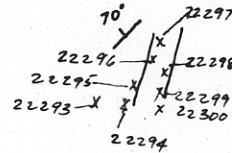
Sample No	%Pb	%Zn	Ag oz/Ton	Au oz/Ton
22293	0.03	0.07	0.45	0.001
22294	0.16	3.48	9.72	0.001
22295	0.12	1.34	7.44	0.001
22296	0.06	2.68	8.08	0.001
22297	3.08	1.98	36.20	0.021
22298	0.01	0.14	2.35	0.001
22299	0.04	1.73	5.58	0.002
22300	0.01	0.01	0.04	0.001
01176	0.03	0.07	0.20	
01175	0.01	0.53	0.12	

RIDGE TOP
BISMARK 1

BISMARK 2



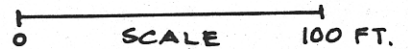
RAISE - STOPED TO SURFACE



open cut

CAVED PORTAL
ELEV. 6700

001176 X
001175 X
CAVED PORTAL
ELEV. 6588 FT.



SEE PLATE 2
FOR SAMPLE LOCATION
AND ADIT PLAN

PORTAL
ELEV. 6350 FT.

SURFACE PLAN BISMARK PROPERTY

HOLMES

Montezuma Cr.

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1406(B)
MT. CARLYLE

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Charlie Cr.

BISMARCK #1 1780
E.D.

E DENNIS CLAIMS

Washington Cr.

MT. KEMP

Creek

SATISFACTION PK.

MT. CHIPMAN

Deer Cr.

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Kawala Cr.

TRAFALGAR MTH.

KYAWATS MTN.

82F/14E

STATEMENT OF QUALIFICATIONS

NAME: Edward W. Yarrow

BORN: 1948 - Zeballos, B.C.

GRADUATE: University of British Columbia
1970 B.Sc in Geology

- 1970-1972 - Employed by American Smelting and Refining Company Limited in Ireland undertaking geological, geophysical and geochemical surveys along with diamond drilling.
- 1972-1973 - Employed by Canadian Reserve Oil and Gas Limited, Calgary, Alberta as Project Geologist on silver-lead-zinc veins near Keno Hill in the Yukon. Duties included geological mapping, drill supervision, geochemical and geophysical surveys.
- 1973-1977 - Employed by Hudson Bay Exploration and Development Company Limited as Project Geologist on various exploration projects in British Columbia and the Yukon.
- 1977-1979 - Employed by Beaver Explorations, Tucson, Arizona as assistant to the Exploration Manager undertaking property examination, ore reserve estimation, drilling and other exploration oriented activities.
- 1979-Present - Employed as senior geologist in the Vancouver Office of Hudson Bay Exploration and Development Company Limited involved in exploration projects in British Columbia

APPENDICES



To: Hudson Bay Exploration & Development Co. Ltd.,

File No. 80-410

Type of Samples Rock

Disposition

ASSAY CERTIFICATE

2
11

Bismarck Silver

No.	Sample	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		1
2	22290	.01	.01	[REDACTED]	[REDACTED]		2
3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		3
4	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		4
5	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		5
6	22293	.03	.07	.45	.001	Chip sample across 1.0m of iron stain zone	6
7	22294	.16	3.48	9.72	.001	Chip sample across 0.3m of limst. zone iron stain zone	7
8	22295	.12	1.34	7.44	.001	Chip sample - 0.5m iron stain zone - presence of sphalerite	8
9	22296	.06	2.68	8.08	.001	Grab sample - sphalerite pyrite observed	9
10	22297	3.08	1.98	36.20	.021	Chip sample - 3m - footwall of silica zone - no 'bulas'	10
11	22298	.01	.14	2.35	.001	Chip sample - 0.5m iron stain limst. zone iron stain zone	11
12	22299	.04	1.73	5.58	.002	Chip sample 1.0m of zone	12
13	22300	.01	.01	.04	.001	Limst. Footwall	13
14	Y14-17/06	.01	.01	.07	.001		14
15							15
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19							19
20							20

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DATE SAMPLES RECEIVED June 19, 1980

DATE REPORTS MAILED June 24, 1980

ASSAYER

Dean Toy

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



To: Hudson Bay Exploration & Development Co. Ltd.,
440 - 1055 W. Hastings,
Vancouver, B.C.
V6E 2E9

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 80-410

Type of Samples Rock

Disposition _____

ASSAY CERTIFICATE

Attn.: Mr. Ed. Yarrow

1
E. DENNIS
Bismark Province

No.	Sample	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	1175	.01	.53	.12	Chip samp across 6m - ZONE?		1
2	1176	.03	.07	.20	Subsamp of hang wall rx		2
3	1177 ✓	1.58	17.10	59.50	- probably samp part of zone Chip samp 4m - hang wall rx		3
4	1178 ✓	.12	1.18	2.78	Chip samp across 3m - fine sphalerite observed		4
5	1179 ✓	.21	.62	1.86	Chipsamp 3m - Fractured difficult to		5
6	1180 ✓	.02	.05	.20	Chipsamp 1.6m ZONE		6
7	1181 ✓	.01	.04	.08	Chipsamp 1.0m - massive gause lmst		7
8	1182 ✓	.01	.07	.15	Chipsamp 6m - hang wall lmst.		8
9	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		9
10	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		10
11	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		11
12	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		12
13	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		13
14	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		14
15	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		15
16	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		16
17	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		17
18	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		18
19	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		19
20	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		20

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DATE REPORTS MAILED June 24, 1980

ASSAYER

Dean Toye

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



To: Hudson Bay Exploration & Development
Co. Ltd.,
440 - 1055 W. Hastings St.,
Vancouver, B.C.
V6E 2E9

File No. 80-410

Type of Samples Rock

Disposition _____

GEOCHEMICAL ASSAY CERTIFICATE

ASSAY

SAMPLE No.	Pb	Zn	Ag	Au	Pb%	Zn%	Ag oz/ton	
Y 16	620	*	6.1	.005		1.62		1
Bismark 1	140	66	7.9	.030	<i>Grab sample old pit</i>			2
2	*	2500	*	.060	2.82	4.12	<i>Grab sample</i>	
Bismark 3	78	146	1.0	.010	<i>GRAB sample of iron shales near north zipper stop</i>			3
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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED June 19, 1980

DATE REPORTS MAILED June 24, 1980

ASSAYER _____

DEAN TOYE, B.Sc.
CHIEF CHEMIST
CERTIFIED B.C. ASSAYER



OKANAGAN HELICOPTERS LTD.
 4391 AGAR DRIVE, RICHMOND, B.C. V7B 1A5
 TELEPHONE (604) 278-5502 TELEX 04-355594

TO
 HUDSON SAY EXPLOR & DEV
 440-1055 W. HASTINGS STREET
 VANCOUVER, B.C.
 V6E 2E9



INVOICE NUMBER
H14671

INVOICE DATE
04/07/80
DAY MONTH YEAR

OUR REFERENCE NO.
1-036301-0000-00

CUSTOMER P.O. NO.

PAGE
1

FLIGHT DATE	FLT RPT NO	TYPE OF A/C	A/C REG	HOURS
17-06-80	384372	BELL 206	FOAJ	0.6
TOTAL HOURS				0.6
				=====

TARIFF CHARGES

ELL 206 - 0.6 HRS @ \$380.00/HR TARIFF RATE
 ** TOTAL 0.6 HRS ** 228.00

GAS & OIL CHARGES

OIL 0.6 HRS @ \$1.00/HR \$0.60
 FUEL 13.8 GALS @ \$1.17/GAL \$16.15
 ** TOTAL GAS & OIL ** 16.75

*Property Exam
 Nelson, BC*

INVOICE TOTAL: 244.75 **

TERMS OF PAYMENT ARE NET 30 DAYS FROM DATE OF INVOICE, INTEREST AT 1.5% PER MONTH (BEING 18% PER ANNUM) WILL BE CHARGED ON OVERDUE INVOICES

