

929/14
671434

INDTRODUCTION:

We are pleased to submit a report on the 1984 operating year for Ashlu Gold Mine. The mine is owned by Slim's Mining & Exploration Co. Ltd. and is operated by Osprey Mining & Exploration Co. Ltd. The mine is managed by Walter (Slim) Babkirk. The minerals mined are basically gold, silver and tungsten, gold being the major producer.

The key claims worked on during the year were:

- Hawk 1 - 1542 Unit 6
- Hawk 2 - 1543 Unit 12

Enclosed herewith is our Operating Report for 1984.

COIN

GEOLOGY:

Regional:

Geological survey of Canada map 42-1963 presents the most recent data compiled regionally. The area is part of the Coast Crystalline Complex, composed of extensive Cretaceous or earlier granodiorite intrusives intertwined with metamorphic rocks as well as unmetamorphosed volcanics and sediments. In some places, these rocks are overlain or cut by Tertiary or later volcanics of various composition. Some granitic rocks also have been determined as belonging to this more recent period.

Granodiorites occupy the largest portion of the Squamish-Ashlu area.

The area in the Ashlu basin between Pokosho and Pykett Creeks contains several copper and gold showings centered on the Hawk claims.

Local:

The Hawk mineralized structure strikes about N15°E and dips about 25°W.

The structure is bounded by a metamorphic zone which may be as much as 100' wide, lying between granodiorite in both the hanging-wall and the foot-wall. A strong quartz vein, between 3 to 4 feet, wide follows close to the granodiorite hanging-wall.

The metamorphic rock is mostly fine-grained biotitic, occasionally banded, dark rock, which could be a metamorphosed tuff or dyke rock. Contacts with the granodiorite rock are sometimes sharp, sometimes diffused.

At the far south end of the workings, a very straight and tight shear striking N40°W, dip 66°SW is present. The quartz vein is more or less "dispersed" before it reaches this shear.

The quartz vein consists of brittle milky white quartz with pods, streaks and disseminations of sulphides. The gold is apparently related to the sulphides and probably occurs as a telluride. In addition, the quartz vein carries irregularly disseminated scheelite, sometimes in crystals one or two inches in diameter and there is minor chalcopyrite.

It has been concluded that the average grade of the Ashlu vein across an average mining width of about 150 cm, is of the order of 0.4 to 0.5 oz/tonne of gold. Tungsten content is lightly variable and appears to be concentrated in the central portion of the vein.

MINING AND EQUIPMENT:

Mining:

The mining method used during operation was open stoping. The mine and mill operated on a 24 hour/day basis with a total crew of approximately 15-20 men. The total ore extracted per day was in the order of 50-100 tonnes.

A brief summary of the daily operations were as follows:

- Wet drilling with jack-legs, stoper and blasting with dynamite or AMEX where possible.
- Mucking with an air-powered scraper to a loading point on the 1460 decline.
- Scaling and installation of rock bolts and/or strapping for roof support.
- Loading and hauling the ore to a stock pile near the mine entrance.
- Trucking the ore to the mill's coarse ore bin.

Equipment:

Main equipment used in the underground operation were:

- (1) ST4 Wagner Scoop Tram (1.9 M³ capacity)
- (1) EMCO 912B Scoop Tram (approximately 0.9 M³ capacity)
- (3) Joy Jack-legs
- (1) Atlas Copco Stopping machine
- (1) Air powered slusher

- (1) Detroit Diesel air compressor (located outside) 900 cfm capacity
- (1) Crysler Nissan light plant
- (1) Blower (portal) 25 hp
- (1) Underground air foil fan 19", 4.7 hp

Main surface equipment used in operation were:

- (1) 1964, 20 tonne, Kenworth Dump Truck
- (1) Allis Chalmers HD-11 Bulldozer
- (1) Detroit Diesel Power Plant 2,600 KVa
- (1) approved 8' x 12' Steel powder magazine
- (1) 1947 Cat 1T grader.

PROCESSING, INSTALLATIONS AND BUILDINGS:

A diagram of the concentrator process is shown on page A-1 of the attached Appendix A. It is a closed circuit process consisting of a 100 tonne ball mill, jig, spiral classifier, magnetic separator, flotation cells, wilfly table and drum filter. The products from the table and filter are shipped to the Trail smelter.

Table concentrate and cell concentrate are contained separately in sealed 45 gallon drums prior to shipment.

Both the coarse ore bin and the fine ore bin are capable of containing approximately 120 tonnes of broken or crushed ore. The primary crusher is a Telsmith Jaw type, 13" x 24" with a 40 hp electric motor and is capable of crushing ore down to -3/8".

Buildings:

The buildings located on the mine site are as follows:

- mill building
- maintenance shop, 16' x 24'
- assay laboratory, 24' x 30'
- surveyor's office trailer, 8' x 16'
- manager's office trailer, 8' x 16'
- dryroom trailer, 10' x 40'
- bunk house trailers (2), 10' x 50' (with snow aluminum roof)
- core storage building, 12' x 18'

- lunchroom trailer (near portal), 8' x 16'
- caretaker's cabin, 16' x 26'.

CONCENTRATE SHIPPING:

The concentrate is shipped via Highway #1 to Hope and then Highway #3 to Trail where it is smelted at the Cominco Smelter.

The concentrate is sealed in 45 gallon drums and is transported by truck approximately once a month.

TAILINGS DISPOSAL AND POLLUTION CONTROL MEASURES:

Tailings Disposal:

The tailings will be disposed of in a natural depression east of the mill building (page A-2 of Appendix A). Based on site visits by Klohn Leonoff, laboratory soil tests results and hydrologic analysis of the site, a dam 98M long by 9M high has been designed and constructed. Diversion ditches have been provided to minimize the surface runoff into the pond. A minimum free-board of 0.9M has been provided in the dam. A volume to elevation curve for the dam along with grain size data for the dam is provided on pages A-3 and A-4 of Appendix A.

The capacity of the pond is approximately 42,000 tonnes with a free-board of 0.9M. Additional capacity of 15,000 tonnes may be added if the free-board is raised another 0.9M. Note: tonnage values are based on an average density of $0.7M^3$ /tonne of tailings.

Polution Control:

No polution is anticipated from the project since the tailings will be impounded and the water recycled to the mill from the pond. Surface runoff diversion ditches are constructed around the tailings pond to reduce the catchment area to about 4 hectares. During periods of heavy precipitation, there may be an excess of water which may spill over the pond. A spillway ditch has been provided through which the water will enter into three

consecutive settling ponds which will remove all suspended solids.

All restrictions regarding discharged effluent are met by Osprey Mining and Exploration. On pages B-1 to B-11 in Appendix B is a copy of the permit submitted to us by the Ministry of Environment. It clearly outlines the maximum allowable effluent concentrations from the mine and mill.

NEW DEVELOPMENTS:

Decline and Stopping:

During the winter of '83/'84, the 1460 decline tunnel was started. The dimensions of this tunnel are approximately 15' x 45' x 200'. Most of the rock removed was treated as waste. A map of the 1460 decline showing tonnage values and tonnage removed from stopping is on page A-6 of Appendix A.

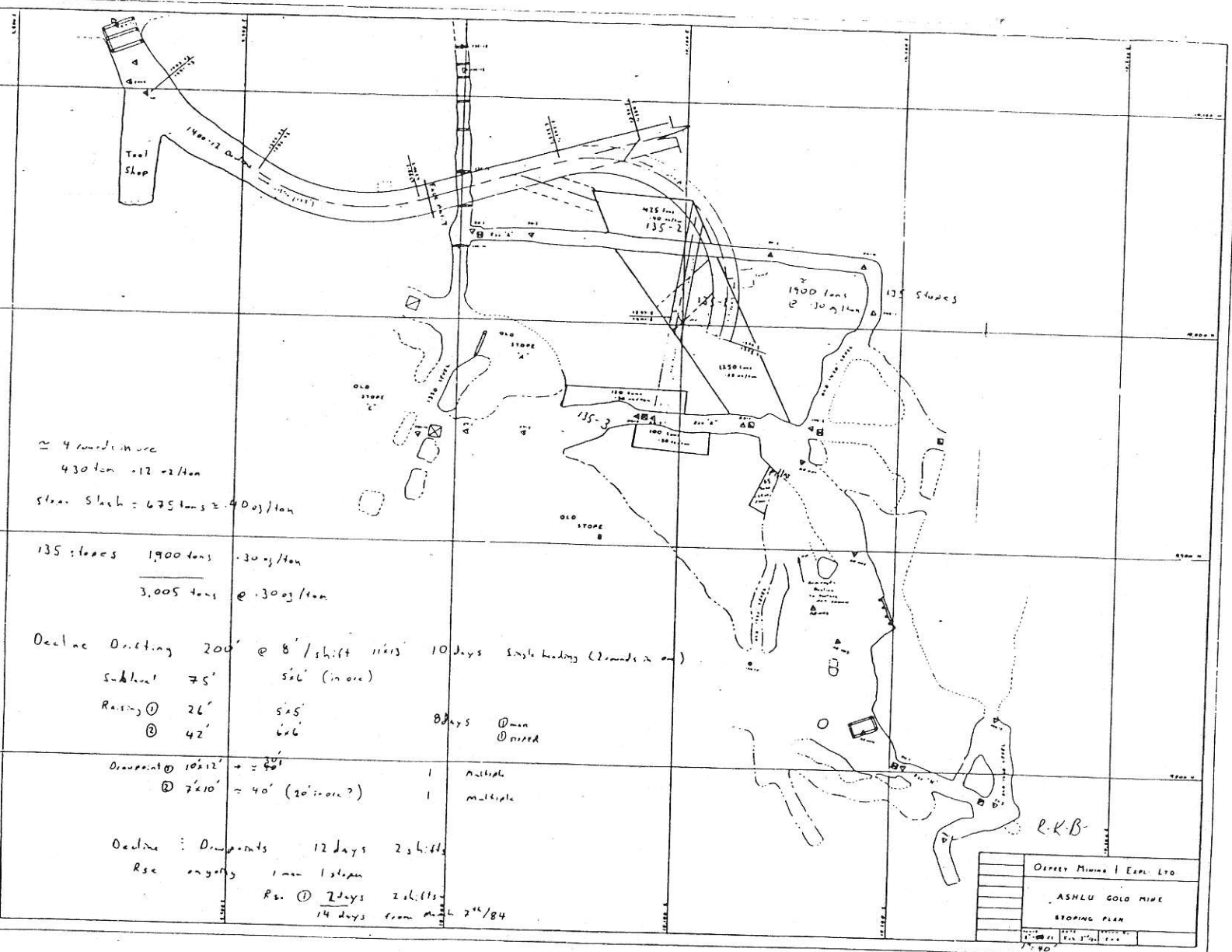
Diamond Drilling:

During the summer of 1984, a total of seven diamond drill holes were drilled (DD#84-8 to 84-14). The intention was to prove up further reserves on the Hawk ore zone; however, the results are still undetermined. The total footage for these seven holes was 1,078 feet.

RECLAMATION:

Enclosed, in Appendix C, pages C-1 to C-5, is a report by Stephen Rogers, Minister of the Ministry of Energy, Mines and Petroleum Resources. It depicts the mine's guidelines as to mine reclamation.

Also in Appendix C, pages C-6 to C-8, is a copy of the mine's reclamation permit.



≈ 4 months more
 430 ton @ .12 g/ton
 Steam Slack = 675 tons @ .90 g/ton

135 stopes 1,900 tons @ .30 g/ton
 3,005 tons @ .30 g/ton

Decline Drifting 200' @ 8' / shift 118' 10 days single heading (2 rounds in a)

Sub-level	75'	526' (in ore)
Raising ①	26'	525'
②	42'	626'

80 days ① man ② mixed

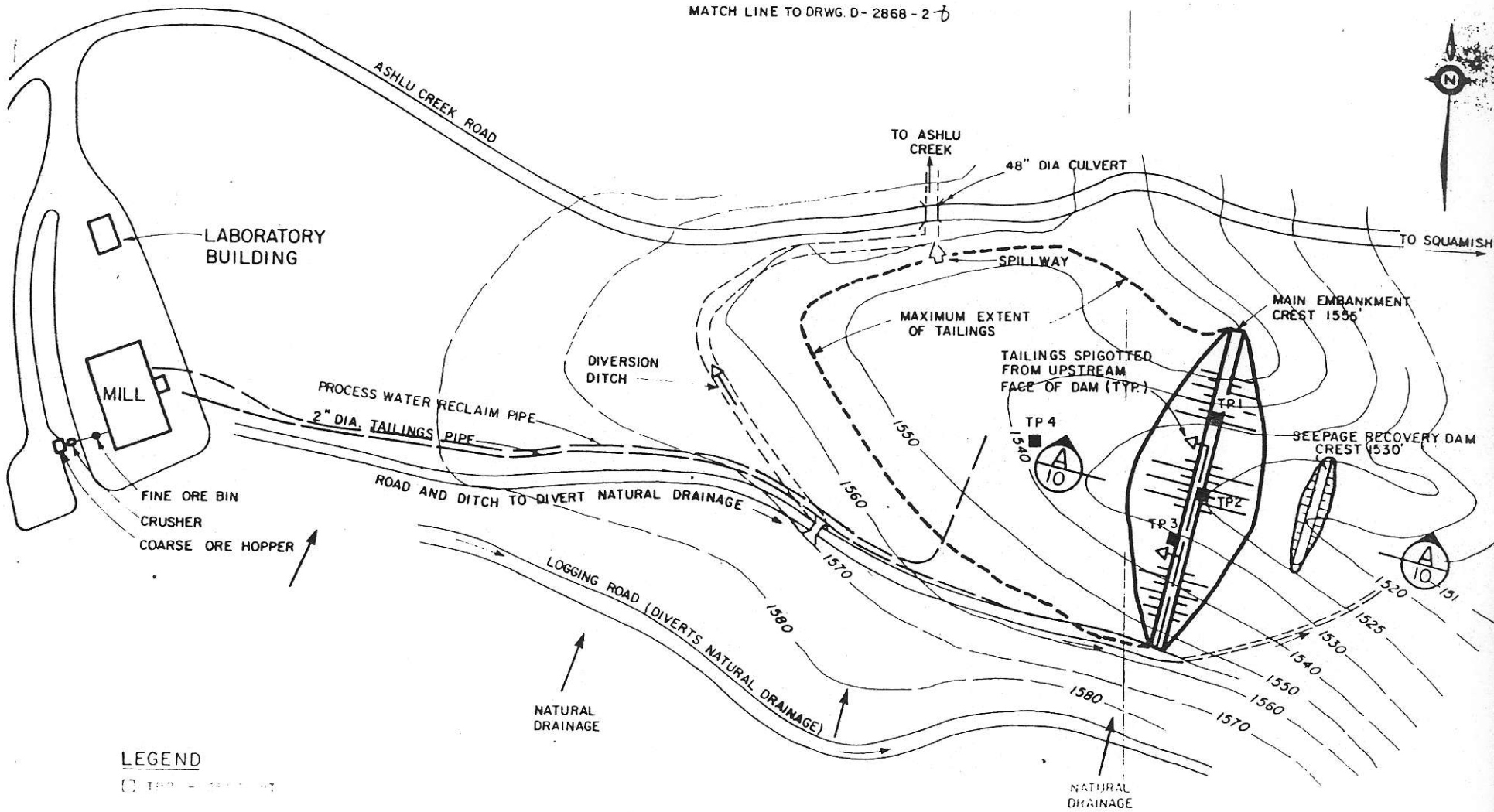
Drainage ①	10x12'	→ = 20'	1	Multiple
②	7x10'	→ = 40' (20' in ore?)	1	Multiple

Decline : Drains 12 days 2 shifts
 Rsc any g/ton 1 man 1 stoper
 Rsc ① 7 days 2 shifts
 14 days from March 26/84

R.K.B.

Orebody Mining & Expl. Ltd.	
ASHLU GOLD MINE	
STOPING PLAN	
DATE	2/26/84
BY	R.K.B.
CHECKED BY	
SCALE	1" = 50'

MATCH LINE TO DRWG. D-2868-2




LEGEND

() TYP - TYPICAL

1530

NOTE: LOCATIONS OF CULVERTS AND EMBANKMENTS ARE APPROXIMATE

TO BE READ WITH KLOHN LEONOFF REPORT DATED Dec. 16, 1981

 KLOHN LEONOFF LTD. CONSULTING ENGINEERS	PROJECT	ASHLU COLD MINE		
	TITLE	TAILINGS DISPOSAL PLAN		
CLIENT	DATE OF ISSUE	PROJECT No.	DWG. No.	REV.
OSPREY MINING AND EXPLORATION LTD.	Dec. 16, 1981			



General Testing Laboratories

A Division of SGS Supervision Services Inc.

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

TO: OSPREY MINING & EXPLORATION LTD.
 38018 Cleveland Ave.,
 Box 1809
 Squamish, B.C.
 V0N 3G0

4769

CERTIFICATE OF ASSAY

No.: 8404-2464 DATE: Apr. 27/84

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

MARKED	GOLD	SILVER	Copper	XXX	XXX	XXX	XXX	XXX
	oz/st	oz/st	Cu (%)					
Submitted by Fred Burgess								
Tabled Jig Conc.	23.522	10.62	0.35					
Jig Conc.	1.456	0.63	-					
Tailing Table Conc.	0.108	0.10	-					
19-4-84 Flot Conc.	3.526	2.99	-					
18-4-84 Flot Conc.	6.088	4.91	-					

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

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I. Wong
 PROVINCIAL ASSAYER

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

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PRULVERIZED TO -100 MESH.

ASSAYER *Al Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

G. DE. BUSSCHER FILE # 83-2125 PAGE# 1

SAMPLE	CU	AG	AU
	%	OZ/TON	OZ/TON
A	1.04	10.22	18.300
B	11.80	26.35	18.520

*Samples taken by
Bruce Hastings
John Walsh*

General Testing Laboratories

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TO:
MR. PETER CHAPKO
 1810 Barnet Highway
 Port Moody, B.C.
 V3H 1W1

CERTIFICATE OF ASSAY

No.: **8405-2554** DATE: **May 30/84**

We hereby certify that the following are the results of assays on: **submitted gold concentrates**

MARKED	GOLD	SILVER	XXX	XXX	XXX	XXX	XXX	XXX
	oz/st	oz/st						
Oprey Gold Concentrate								
Slins Conc.	11.473	14.29						

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L. Vogt

PROVINCIAL ASSAYER

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Shipment of
Tails

General Testing Laboratories

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TO:
OSPREY MINING & EXPLORATION LTD.
38018 Cleveland Ave.,
Box 1809
Squamish, B.C.
V0N 3G0

CERTIFICATE OF ASSAY

No.: 8405-2850 DATE: June 1/84

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

MARKED	GOLD	SILVER	Lead	Zinc	Arsenic	Iron	Antimony	Sulfur
	oz/st	oz/st	Pb (%)	Zn (%)	As (%)	Fe (%)	Sb (%)	S (%)
Osprey Gold Concentrate								
25-5-84	10.824	11.88	0.015	0.080	0.01	18.41	0.020	17.96
	Alumina	Calcium oxide	Tungsten oxide					
	Al ₂ O ₃ (%)	CaO (%)	WO ₃ (%)					
	3.20	2.06	< 0.01					

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

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L. Wong

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212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : OSPREY MINING & EXPLORATION LTD.

BOX 1809

SQUAMISH, B.C.

VON 3G0

cc BULLIS ENGINEERING -MAYNE ISLAND VON-2JO

CERT. # : A8315215-001-A

INVOICE # : I8315215

DATE : 13-OCT-83

P.O. # : NONE

Sample description	Prep code	Cu %	Fe total %	WO3 NAA %	Ag FA oz/T	Au FA oz/T	Weight g
TAIL SAMPLE	207	--	--	--	1.25	0.560	2701.00
HEAD SAMPLE	207	--	--	--	1.03	1.567	1606.00
MILL CONC FLOAT	207	5.00	26.72	0.020	6.15	5.074	1267.00
CONC DENVER	207	--	--	--	11.91	5.032	582.00
JIG CONC-BALL	225	--	--	--	3.30	7.310	44.43
JIG CONC-ROD	225	--	--	--	9.64	21.250	42.08
TABLE CON	207	2.11	23.45	0.960	1.06	7.511	3071.00

.....
Registered Assayer, Province of British Columbia



MEMBER
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ASSOCIATION