

**Memorandum to Directors**

**Date:** October 18, 1995

**To:** K. G. Hanna                      Delivered by Hand  
A. F. Reeve                            "                      "  
J. H. deB Farris                      "                      "  
O. S. Hairsine                        Delivered by Courier

**From:** J.W. Stollery, P. Eng.  
President

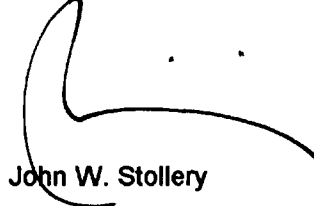
Please find enclosed the following information:

- 1) Draft News Release concerning completion and assay results from five deep holes and detailed map.
- 2) Roscoe Postle Associates Inc. - October 13, 1995 letter outlining Scope of Work and Table of Contents for report to be titled "**Reserve Estimates and Economic Review of the Siwash Gold Mine**".
- 3) Fairfield Minerals Ltd. - October 16, 1995  
Siwash Gold Deposit - Data Package received by R.P.A. Inc. on October 17, 1995.
- 4) Fairfield Minerals Ltd. - October 12, 1995  
Updated information regarding cut-off grade for underground reserve calculations.

I would appreciate your comments and advice concerning the above. The news release should be sent out on or about October 24 after K. G. Hanna has returned from holidays.

I will be out of town the week of November 5th and may be contacted through Peggie at our office.

Regards,



John W. Stollery

**NEWS RELEASE:**

FOR IMMEDIATE RELEASE OCTOBER \_\_, 1995

**DEEP DRILL HOLES RETURN EXCELLENT RESULTS**

Five deep surface holes were recently completed at the Siwash Gold Mine near Merritt in southern British Columbia. These holes explored an area below the underground development where previous wide-spaced drilling had returned six encouraging intercepts of up to 11.69 ounces gold per ton over 2.9 feet (see map overleaf). Three of the five follow-up holes (206S, 207S, 209S) returned significant gold values (see table) from intercepts at vertical depths of 750 to 850 feet. All five of the holes intersected the vein structure demonstrating excellent continuity. This area remains unexplored at depth and along strike.

<u>Hole No.</u>	<u>Gold (oz/ton)</u>	<u>True Width (feet)</u>	
91-97S	11.69	2.9	
91-107S	2.48	1.3	S denotes hole drilled from surface
91-108S	2.67	1.3	
91-109S	0.83	1.3	
95-287U	3.62	1.5	U denotes hole drilled from underground
95-300U	9.43	0.7	
95-206S	3.92	0.7	
95-207S	0.78	1.1	
95-209S	14.62	0.9	

The 1995 exploration program is now complete. Expenditures of \$2.0 million funded extension of the underground access, 25,000 feet of diamond drilling in 217 underground holes and 21,000 feet in 98 surface holes. The bulk of the program comprised close-spaced (33 by 33 foot) definition drilling of the mineralized vein system within an 1100 by 500 foot area, below and east of the open pit.

Results from the detailed grid drilling have been compiled in a comprehensive database. This data is being analyzed by an independent consulting firm as well as by Company personnel to determine a reserve inventory as part of the ongoing pre-feasibility study. The results of this study are expected to be available by the end of November.

Fairfield is listed on the Toronto Stock Exchange - symbol FFD.

On behalf of the board,

John W. Stollery, P.Eng.  
 President

# DRAFT FOR DISCUSSION ONLY

## SIWASH MINE AREA

**OPEN PIT 1992 - 1994**  
47,500 ounces Gold / 16,200 tons  
average 2.93 oz/ton

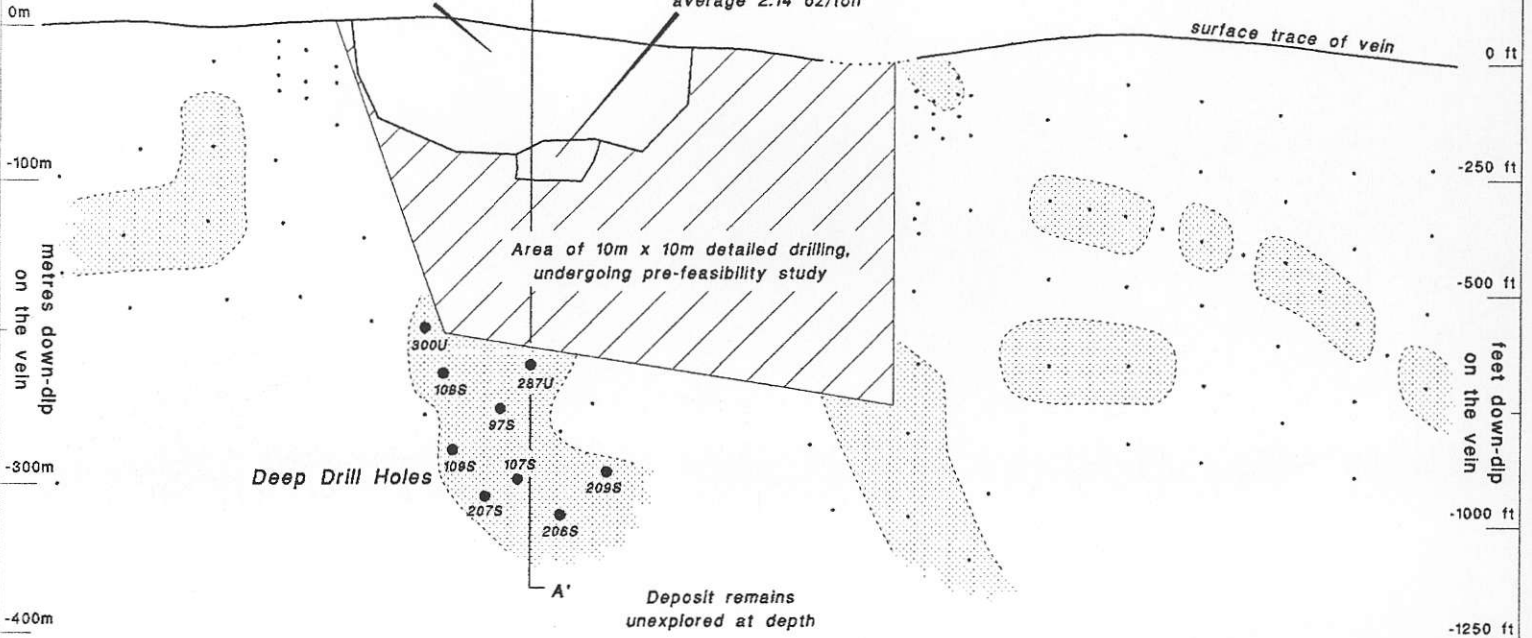
**UNDERGROUND MINING  
1993 - 1994 (1611 STOPE)**  
3,750 ounces Gold / 1,750 tons  
average 2.14 oz/ton

Area of 10m x 10m detailed drilling,  
undergoing pre-feasibility study

Deep Drill Holes

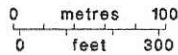
Deposit remains  
unexplored at depth

surface trace of vein

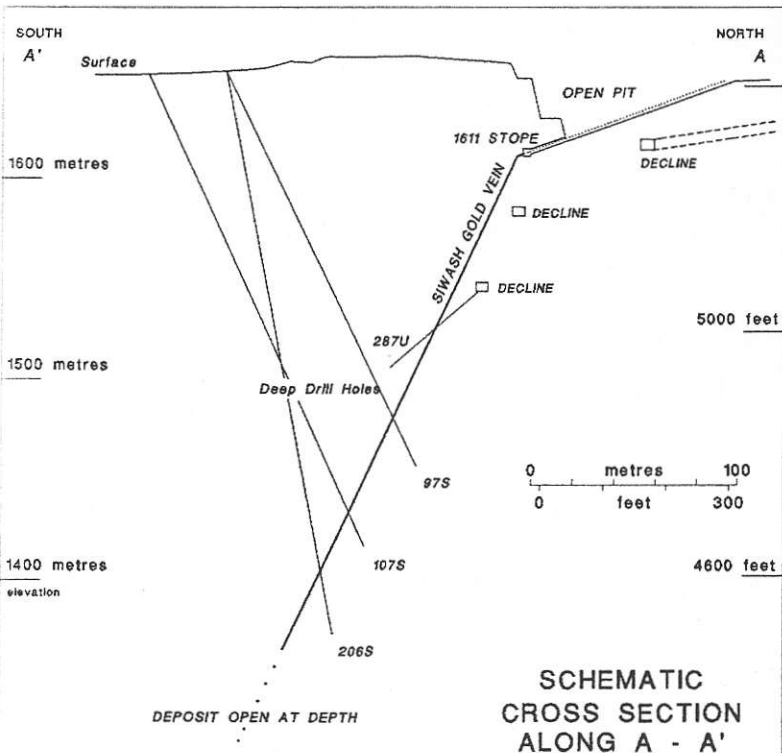


### LONGITUDINAL SECTION IN THE PLANE OF THE VEIN

- 1991 & 1995 Deep drill intercepts reported in Table
- Drill hole vein intercept
- ▨ Shoots outside of detailed drilling area, indicated by vein assays greater than 0.5 oz/ton Gold over widths ranging from 1 to 3 feet
- Section line (see below)



Easting (metres)



### SCHEMATIC CROSS SECTION ALONG A - A'

Fairfield Minerals Ltd.



SIWASH GOLD MINE

Longitudinal Section  
and  
Schematic Cross Section

October 24, 1995

**ROSCOE POSTLE ASSOCIATES INC.**

Suite 1210  
55 University Avenue  
Toronto, Ontario  
M5J 2H7  
(416) 947-0907  
Fax: 947-0395

October 13, 1995

By Facsimile: 604-669-3308

Mr. John W. Stollery  
President  
Fairfield Minerals Ltd.  
1980 - 1055 West Hastings St.  
Vancouver B.C.  
V6E 2E9

Dear Mr. Stollery,

**Re: Siwash Gold Mine Review**

Roscoe Postle Associates Inc. (RPA) has been retained by yourself on behalf of the Fairfield Board of Directors to carry out a review and report on the Siwash Gold Mine. The review will include an independent estimate by RPA of the geological and mineable reserves, using the recent detailed drilling results. The mining and metallurgical aspects will also be briefly reviewed in order for RPA to comment on the economic potential.

Attached are a suggested Scope of Work for the assignment and a tentative Table of Contents for RPA's report. The report will summarize the technical aspects of the Siwash Gold Mine, and our findings and conclusions will be stated clearly and concisely. Please let me know if the Scope of Work needs to be modified.

I have already visited the mine site and had some discussions with Fairfield staff. We expect to receive Wojtek's data package on Tuesday October 17th. I have requested some additional material from Jim McCormack. Our target date for submission of a draft report to Fairfield is November 10th. We estimate that professional fees will be in the order of \$20,000 to \$25,000 plus expenses in the order of \$4,000 to \$5,000, not including GST. To the end of September, fees and expenses total approximately \$6,000 including GST.

Sincerely,  
ROSCOE POSTLE ASSOCIATES INC.



William E. Roscoe, Ph.D., P.Eng.  
Consulting Geologist

**REVIEW OF THE SIWASH GOLD MINE  
FOR THE DIRECTORS OF FAIRFIELD MINERALS LTD.  
BY ROSCOE POSTLE ASSOCIATES INC.**

**SCOPE OF WORK**

Site visit; review data and project status with Fairfield staff; discuss reserve database, methodology and classification; discuss open pit and underground mining possibilities; review preliminary operating cost estimates. [Done September 11-13, 1995] PAID \$5,800 OCT 16.95

Review Fairfield's database including recent detailed diamond drilling; check geological interpretation of veins; prepare independent estimate of the in situ and mineable reserves; classify them as to proven, probable and possible.

Review Fairfield's material mining methods, metallurgical testwork, processing alternatives, operating costs and capital costs; comment on the economic potential of mining the remaining reserves, and of adding to the reserves in the mine area and other parts of the property.

Prepare concise report which summarizes the technical aspects of the Siwash Gold Mine and clearly states our findings and conclusions; figures and tables as required. Tentative Table of Contents is attached.

Target date for submission of a draft report to Fairfield for comments: November 10, 1995.

*ESTIMATES*  
TITLE. "RESERVE ~~CALCULATIONS~~ AND ECONOMIC  
REVIEW OF THE SIWASH GOLD MINE"

**REVIEW OF THE SIWASH GOLD MINE  
FOR THE DIRECTORS OF FAIRFIELD MINERALS LTD.  
BY ROSCOE POSTLE ASSOCIATES INC.**

**TENTATIVE TABLE OF CONTENTS**

**SUMMARY AND CONCLUSIONS**

**INTRODUCTION**

Terms of Reference

Location, Access and Infrastructure

**HISTORY OF EXPLORATION AND PRODUCTION**

**GEOLOGY AND RESERVES**

Regional and Property Geology

Mineralization

Review of Database

In Situ (Geological) Reserves

Mineable Reserves

Classification of Reserves

**ECONOMIC POTENTIAL**

Mine Development

Mining Methods

Metallurgical Testwork

Processing Alternatives

Capital Costs

Operating Costs

Preliminary Economics

Potential for Additional Reserves

Siwash Gold Mine Vicinity

Other Parts of the Property

**CONCLUSIONS**

**SOURCES OF INFORMATION**

**CERTIFICATE OF QUALIFICATIONS**

October 16, 1995

Roscoe Postle Associates Inc.  
Suite 1210, 55 University Ave.  
Toronto, Ontario M5J 2H7

Attention: Mr. W.E. Roscoe Ph.D., P. Eng.

Dear Mr. Roscoe:

**Re: Siwash Gold Deposit - Data Package**

This data package contains the following:

- 1) North-south oriented drill sections at intervals of 10 to 50m from 1840E to 2740E in Cadd 11 DWG format. The sections are drawn at 1:100 scale but the text is scaled for 1:250 so you should use a 1:2.5 scale for plotting. If you have a very high resolution plotter you could use 1:5. Legends explaining the geological abbreviations are included in the 1991 sections 1840E to 1940E. On the 1994-95 sections 1980E to 2405E, faults are indicated by solid-dashed lines and the veins by solid lines. The quartz veins are designated by colours: Ba - purple, Bb - yellow, Bc - green. Fire assay results are bar graphed on the sections but wet assays (MIBK) aren't, so some high results won't be displayed on the sections. The above data is included on Diskettes SECTION 1 and SECTION 2.
- 2) East-west drill sections 3425N, 3357N, 3365N, 3375N. Section 3425N covers the 1995 surface drilling on the east side of the deposit and the other three cover the drilling on the west side of the open pit. The above data is included on Diskette SECTION 2.
- 3) A longitudinal section through the deposit (east and west halves) looking North. Only the B, Ba zones are plotted to prevent overprints. Also includes a plan of the B, Ba vein with zone contours and grade thickness contours. Zone intercepts with averaged grade and true widths are plotted for the B, Ba zone. The above data is included on Diskette PLAN 1.
- 3) Data tables (in db4 format) including sample data table, assay summary table, sample survey coordinate table, the drill hole geotech table, sample orientation and true width table, averaged assay table. The holes can be linked by a combination of the hole number, from - to, sample number fields. I have also included the scripts (macros) that calculate the SG and true widths. They are quite well documented and should be clear. The above data is included on Diskette DATA 1.
- 4) The SNT0ZNSM .WK1 (Siwash North total zone summary) spreadsheet containing weighted averages of intercepts and their locations. An explanation of the columns is given below. The above data is included on Diskette DATA 1.

## SNTOZNSM

This is a spreadsheet containing trench, drill and oreblock (UG and Open Pit) averaged assays with true width intervals and sample coordinates.

Col1:	HOLE:	Prefix designating type of sample: 95-, ND95-, 91-, 90-, 89- surface diamond drill intercept. U95-, UD94- underground diamond drill intercept. C92, C93 reverse circulation intercept. T89-, T90- trench sample. OB open pit ore block. UB underground ore block or face sample. AP artificial point used to smooth contours of edge effects. P92- airtrack drill sampled zone intercept (poor samples).
Col 2:	#	Hole number/ trench number etc.
Col 3:	ZN	Zone designation.
Col 4:	Dup	Tests for duplication of sample.
Col 5:	SECTION	Easting of drill section.
Col 6:	FROM	Sample or averaged intercept from - to depths down the drill hole.
Col 7:	TO	Sample or averaged intercept from - to depths down the drill hole.
Col 8:	AREA	Used to categorize the data into areas ie: Phase 1 pit, Mother Shoot.
Col 9:	AREA m2	Areas of reserve polygons.
Col 10:	SG	Specific gravity. SG was originally preset to 2.5 for oxidized ore and 2.75 for unoxidized ore. More recently (94,95) I have applied a formula using the contents of Fe, Cu, Pb, Zn to calculate an SG.
Col 11:	AVG INT m	Averaged true width interval in metres.
Col 12:	AU gm/INT	Weighted averaged gold grade over the true width interval in gm/tonne.
Col 13:	AU gm/INT	Averaged gold grade multiplied by the true width interval.
Col 14:	AG	Averaged silver grade in grams/tonne.
Col 15,16:	EAST, NORTH	Coordinates of the center of the zone sample.
Col 17:	CORELEV	Elevation of the intercept after rotation of the intercept to the vertical plane using the surface (or nearest surface) intercept as origin. Used for plane of vein polygonal reserve calcs. To use this the spreadsheet must be sorted in the following order : 1 Zone, 2 Section, 3 Elevation. Confirm that the formula in the first row refers to the correct row end copy the formula to the bottom of the sheet.
Col 18:	ELEV	Elevation of the center of the zone sample.
Col 19:	SYM	Code used to plot specific symbols on plans using the Surfer surface modelling package.



**Fairfield Minerals Ltd.**

-3-

**HOW TO EXTRACT DATA:**

All the files have been compressed into 1.4 meg or smaller self extracting files. The contents of the diskettes are noted on the label . Simply copy the files on the diskettes to the directory you wish to store them in and run the file.

Jim has also included a memorandum reviewing cutoff grade for Underground Ore Reserve calculations.

If you require additional information please call me.

Sincerely yours

**Fairfield Minerals Ltd.**

A handwritten signature in cursive script, appearing to read 'Wojtek Jakubowski', written in dark ink.

Wojtek Jakubowski, P. Geo.

WJ/pj

encls.

COPY FOR DIRECTORS.

# Fairfield Minerals Ltd.

## MEMORANDUM

Date: October 12, 1995

To : John Stollery, Jeff Rowe, Wojtek Jakubowski, Paul Conroy, W. Roscoe

From: Jim McCormack

Subject: Cut-off Grade for Underground Ore Reserve Calculations at the Siwash Mine

For Underground Ore Reserve calculations a Cut-Off Grade criteria of 17 gram-meters per tonne should be used.

The following assumptions have been made to estimate the economic cut-off grade.

Owner operated mine and plant	
On-site Processing of Ore in Gravity/Flotation Plant	
Metallurgical Recovery	95%
Production Rate - tonnes per calendar day	100
Tonnes of Ore per Vertical Meter	250
Major Level Interval (vertical)	50
Primary Access Development - meters per level interval	
Ramp	350
Sumps, Muckbays, X/Cuts etc.	50
Ventilation Raise	65
Level Development - meters per level interval	
Access X/Cut	20
Timber Drift on Structure	225
Resued Timber Drift (ore grade)	75
Stoping	
Flat Dip Panel - tonnes per year	17,300
Tight Cut and Fill - tonnes per year	17,300

Only on-site production costs have been included in the cut-off grade calculations. All capital costs including plant, equipment, primary access development (ramp/shaft) and ore outline drilling have been excluded. No head office charges or accounting costs have been included.

The costs have been simulated using cost modules appropriate for the Siwash Mine and are summarized in Table 1. (The detailed cost modules are attached as Appendix I.)

Net Smelter Return parameters are summarized in Table 2. (Detailed NSR calculations are attached as Appendix II)

The economic cut-off grade is calculated as:

$$(Cost)+(NSR)$$

Based on a production cost of \$213 per tonne and an NSR of \$480.50 per ounce in the mill heads the economic cut off grade is:

0.443 oz/dmt  
13.78 grams/dmt  
0.402 oz/dst

Assuming a 1.2 meter minimum-true-mining-width, the Grade x Width Cut-Off Criteria is 17 gram -meters per tonne.

Just for interest's sake, we should be aware that at a production rate of 100 tonnes per day and 250 tonnes of reserves per vertical meter, the rate of deepening to sustain production is 150 meters per year!

Fairfield Mineral Ltd - Siwash Mine

**Cut-off Grade Calculation Parameters**

**Table 1  
Production Costs Exclusive of Plant, Equipment, Primary Access Development and Ore Outline Capital Costs**

Production Cost by Major Center	Units of Work	Unit Cost	Total Cost	Cost per tonne milled	Cost Distribution
Level Development	36,500 tonnes milled				
Flat Dip Panel Stopping	930 meters	\$889.25	\$827,000	\$22.66	11%
Cut & Fill Stopping	17,300 tonnes	\$67.05	\$1,506,000	\$41.26	20%
Mine Services incl' haulage, ventilation power, pumping etc.	17,300 tonnes	\$66.13	\$1,144,000	\$31.34	15%
Mine General Overhead	364 days	\$3,881.87	\$1,413,000	\$38.71	19%
Milling	364 days	\$1,859.89	\$677,000	\$18.55	9%
Site Administration	36,500 tonnes	\$35.04	\$1,279,000	\$35.04	17%
	364 days	\$1,552.20	\$565,000	\$15.48	8%
			\$0		
Subtotal			\$7,411,000	\$203.04	
	plus Contingency @ 5%		\$370,514	\$10.15	
<b>Total Production Costs</b>			<b>\$7,781,514</b>	<b>\$213.19</b>	

**Table 2  
Net Smelter Return Parameters**

Overall Mill Recovery		95.0%
% Recovered Gold to Flot Con		50.0%
% Recovered Gold to Gravity		50.0%
Flotation Con Grade		10 oz/ton
Gravity Con Grade		2000 oz/ton
	Gold Price @	\$380.00 \$US per oz
	exchange @	\$0.74 \$US per \$Can
NSR - Flot Con @		\$471.00 \$Can per oz
NSR - Gravity Con @		\$490.00 \$Can
<b>NSR -ex MM</b>		<b>\$480.50 \$Can per oz</b>