Beaverdell 82E/6E 82ESW 030

880567

FAME" PROGRAM - SUMMARY SHE ************************ COMPANY NAME: Teck Corporation CONTACT NAME: B. Goetting PREVIOUS BUDGET: \$2,500,000 REFERENCE NUMBER: **M**6 PROPERTY NAME: Beaverdell Mine TITLE: Mine Manager 1986 BUDGET: \$613.280 DATE 18-Feb-87 DCATION: Greenwood TELEPHONE NUMBER: 484-5510 FAME GRANT: \$200,000 Hwv. 33. FARGET : Delineate reserves to extend mine-life. 111111 CAPSULE SUMMARY OF PROGRAM: *********************** Silver bearing veins, striking NE-SW or E-W, occupy a northeasterly structural zone of a large body of Cretaceous quartz diorite. The quartz veins vary from a few inches to 6 ft. in width and average 11 inches. Lean and rich zones alternate. Severe faulting offsets occur. Defining ore reserves is difficult and costly. 1986 PROGRAM: PROPORTION OF FAME FUNDING TO TOTAL PROJECT COST: 32.6121 ******** PROPORTION OF TOTAL "AMEP" FUNDS ON THIS PROJECT: 13.3321 An area of gold mineralization has been encountered on the 2900 level. Due to falling silver prices, an effort will be concentrated in this area to define, by drilling & drifting, a mineable reserve of gold bearing material. **REPORTED PROGRESS WITH PROGRAM TO DATE:** FORECAST VS ACTUAL PROJECT EXPENDITURES: OCT: Surface: 10 holes completed on Bell claim with encouraging ·---NONTHLY----> <---->CUMULATIVE----> VARIANCE BUDGET VARIANCE results in 2 areas. Best intersections were Ag 100.03 oz/t, BUDGET ACTUAL ACTUAL Au .08 oz/t over 3.0' and Ag 125.79 oz/t, Au .05 oz/t \$60.000 \$ Narch 87 \$60,000 \$60.000 \$60,000 \$0 over 1.0'. Underground: Intersections to North in April 86 \$0 \$60,000 \$0 \$60,000 1 general area of old stope #2912 have returned values May 86 \$0 \$60,000 \$0 \$60,000 \$ up to Ag 160.77 oz/t, Au .09 oz/t over 3.4'. Further June 86 \$0 \$60,000 \$0 \$60,000 1 drilling will be done. July 86 \$50,000 \$56,117 (\$6,117) \$110,000 \$56.117 \$53,883 \$ NOV:2 holes completed prior to freeze-up to attempt to August 86 \$60,000 \$83,950 (\$23,950) \$170,000 \$140,067 \$29.933 \$ \$76,361 \$216,428 \$60,000 extend good ore intersections in area of North Gulch September 86 (\$16.361) \$230.000 \$13.572 \$ pit, located in Oct drilling. Zone located with best October 86 \$60.000 \$70,331 (\$10.331) \$290.000 \$286.759 \$3,241 \$ intersection being Ag 11.29, Au 0.03 oz/t over 1.5'. November 86 \$60,000 \$45,592 \$14,408 \$350,000 \$332,351 \$17,649 \$ December 86 \$46,402 \$60,000 \$13,598 \$378,753 \$31,247 \$ Surface drilling stopped. 2900 level drilling continued \$410,000 to trace one zone to E approx. 60' below 2900 level. \$60,000 \$72,025 (\$12,025) \$470,000 \$450,778 \$19,222 \$ January 87 From limited D.D. intersections and exposures in drifts February 87 \$60,000 \$60,000 \$530,000 \$450,778 \$79.222 \$ appears ore zone has changed strike to atleast E-W and ______ possible S of E. E ext. has now been indicated for 450' TOTAL: \$530.000 \$450,778 \$79.222 beyond last area mined with most distant intersection assaying _____ Ag 22.76, Au .06 oz/t over 2.7' in D.D. hole F2918. DEC: Drilling from 2911 drift in area of 2912 stope located extensions **# LOCATION:** COMMENTS: to ore zone previously mined with best intersection assaying Ag 3.66. *********** ******* Au .14 oz/t over 0.6' Holes to North to explore for up dip or faulted extensions to 2912 stope ore have located stringers assaying up to 1 Grant increased from $\Lambda \Lambda$ Ag 1.93, Au 0.42 oz/t over 0.5' to 1.5'. t \$175,000 to \$200,000. JAN: Lower Mines - 2900 Level: 2 drills operated all month with good t 1 success in locating gold rich extensions to previously located ore and \$ in extending the ore bearing structure to E. 3 best intersections were \$ Ag 7.27, Au 1.09 oz/t over 0.3', Ag 38.86, Au 1.54 oz/t over 1.5', 1 Ì Ag 62.32, Au 0.14 oz/t over 3.7'. Recent gold assays are highest t ever encountered at mine. Upper Mine - New Beaver: Large number of t 11 important intersections located in drilling from New Beaver 03 cross- \mathbf{M} 1 cut. 2 of the best were Ag 114.57, Au .05 oz/t over 1.0', and Ag 175.41,# n Au 0.07 oz/t over 0.6'. Good results achieved in January go a long way 🕴 towards developing tonnage necessary to justify 2800 level development.

January 19, 1987

FAME Property Report Notes

M6 - Teck Corporation - Beaverdell Mine

Visit with W.R. Smyth, Wednesday, January 7, 1987.

Bruno Goetting	Mine Manager	
Wayne Murton	 Contract geologist his 	red to run the
~	FAME sponsored explore	tion program.
Peter Urban	Assistant	

General Operation

-	35	people	on	the	payroll:	-	8	mill
						-	6	surface
						-	6	staff
						-1	5	underground

- 115 tpd milling continuous
- 70 tpd mining (Monday Friday, one shift)
- Balance of mill feed (30%-50%) coming from old dumps from (pre-1950) operations when ore was hand cobbed and sent to Trail. Flotation mill built in 1950.

First dump through the mill (1960) ran 60 oz/t Ag. Now averaging around 10 oz/t Ag. Eurrent overall average for dumps remaining is 5 oz/t Ag. Have 30,000-40,000 tons of this material remaining. Only get 80% recovery due to oxidation problems compared with 90% recovery on fresh underground are. Gold content of the concentrate sent to Trail has increased from 0.20 oz/t-0.25 oz/t to 0.46 oz/t-0.48 oz/t due to mining ore from lower levels which have a higher gold content.

- Old fill in shrinkage stopes runs around 10 oz/t Ag and is being mined.
- Tailings: 200,000 tons containing around 5 oz/t Ag. Bob Seraphin wants to make a deal on these to heap leach them at the <u>Union Mine</u>. A feasibility study carried out when silver prices were around CDN \$15/oz indicated a 1.5 year payback followed by 2.5 to 3 years profit. Represented a \$3 million investment, construction of plant commenced ...then was cancelled when silver prices dropped.
- Silver Production: around 1,000 ounces/day.

- Power costs: \$5,000/month usually \$7,500 currently due to increased use of compressors on FAME exploration.

- Union Operation: Agreement expired in April 1985. Not yet renegotiated.
- Profitabilities: Has been losing money for the last 2 years. Need at least CDN \$10/oz to break even.
- Mining Method: Open stoping; don't need to backfill.
- Mining Costs: \$40/ton
- Milling Costs: \$18-20/ton
- Total Costs: around \$60/ton.
- Production Rate: 1950-86 average of 80 tpd
- Milling: 80-95% recovery for Ag depending on oxidation level of silver feed. Silver partitioning 1:5 between zinc and lead concentrates.

Zinc con. - runs at 50%-56% (minimum acceptable to Cominco is 40%); 100 oz/t Ag.

Lead con. - 18%-20% Pb, 500 oz/t - 600 oz/t Ag and 0.45 oz/t Au.

Jig con. - 500 oz/t-600 oz/t Ag and 0.45 oz/t Au.

Geology

- Good compilation papers exist by Colin Godwin and Pat Watson. UBC field notes by Marie Archambault also useful.

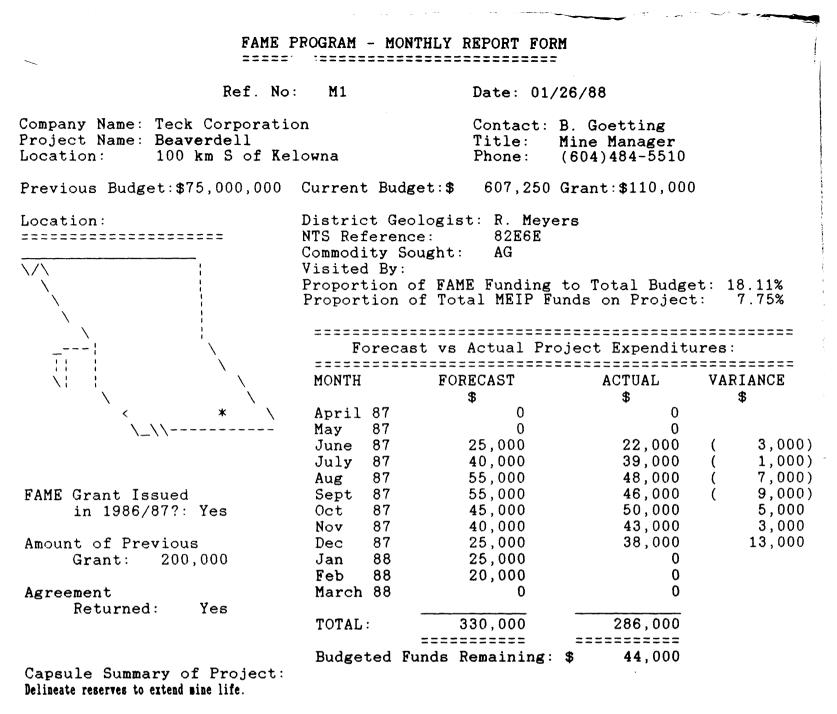
Very useful compiled glass models (at 1":100 ft scale) showing stopes, drifts, raises and ore zones have been prepared both as sections and level plans. Give great food for thought and arm waving.

- Two major faults the 'East and West Terminal Faults' downthrow the vein system in 300 ft to 700 ft steps to the west dividing the mine into 3 main areas: the 'Bell', 'Lass' and 'Lower'.
- Many subsidiary faults are clear on the sections, a common factor appears to be that east dipping faults downthrow to the east and west dipping faults downthrow to the west, producing graben and horst type structures. East dipping faults, in general, have larger throws than the west dipping ones.
- The vein system as a whole parallels and slightly transgresses the Granodiorite-Wallace Formation contact. Most of the ore developed to date has been within the granodiorite.

- Although the overall system parallels the Wallace Formation contact individual ore shoots are quite steeply inclined to this overall trend. They give the impression of occupying an-echelon structures developed as the result of a shear couple sub-parallel to the Wallace Formation contact.
- As the mineralized zone transgresses from the granodionite host into the Wallace Formation fundamental chemical changes appear, gold values increase, together with lead and zinc whereas silver values decrease.

Bottom Line on FAME

Has been a success in finding new ore, some of which has been mined and processed already. Company has confirmed that the lifetime has been extended as a result of the FAME program. Because only 8% refunds are available for drifting they have concentrated on drilling. This is not necessarily the optimum exploration technique to use in this type of mine.



1987/88 Program: 6500 m underground diamond drilling in lower and upper mines, 2700 m surface diamond drilling, surface stripping, trenching, 150 m drift and crosscuts.

Comments: REM will visit in the fall.

Progress:

JUNE: Surface: Prepared drill sites and conducted a limited amount of stripping on the Highland Fraction and Sally claim. Surface diamond drilling: 2 holes on Revenge claim below old workings failed to intersect a zone of interest. Underground Diamond Drilling: Drilling below 2900 level to attempt to trace the down dip continuation of the ore zone located low grade (5 oz/ton Ag) sections. JULY: Surface: Stripping and trenching of potential mineralized areas was conducted on the Revenge, Idaho, Lass and Highlander Fr. claims. Diamond Drilling: Four holes on the Switchback vein indicated a continuation of the mineral zone to the east with the best intersection 1.5' of 24 oz/ton Ag and 0.06 oz/ton Au. Drilling in 2901 drift has located good looking hanging wall stringers with assays awaited.

AUGUST: Trenching was conducted on a mineralized zone in the Wallace on the Lass claim near the Highland Chief boundary (Bast Lass).

The area required a short access trail. In the lower mine on 2900 L, drilling in 2901 drift and 2905 drift has located mineable ore above the level. The best intersection was 123.94 Ag, 0.04 Au/5.5'. In the Powder Tunnel @ 4160' elevation, two good ore intersections were cut, with the best, assaying 152.49 Ag, 0.01 Au/2.0'.

SEPT: Stripping on the Bell claim and Pueblo fraction revealed indications of mineralization that require more work. Two drill pads were cleared on the Pueblo and Rob Roy claims. In the lower mine, drilling in 2901 drift attempted to locate hanging wall stringers and a down dip continuation of the main ore zone with only limited success.

OCT: A 100° cut was put in on the Rob Roy claim to the SW from ore indications found at 1600N & 1300B. The new vein is exposed over a surface length of 750° & disappears to the NE under an old mine dump. October footage 3,088°, FAME TO DATE 11,084°. Three holes put in under the mineralization discussed above cut 3 good ore intersections of 44 oz/ton Ag over 3.0°, 172 oz/ton Ag over 2.0° & 108 oz/ton Ag over 1.5°. This area will be mined from surface & underground in 1988. Drilling in the "Upper Hine" from the Powder Tunnel & 7 level has cut a number of good grade intersections which should provide ore over the next several months.

NOV: Two machines operated all month. In the upper mine, 1,260' were drilled and two ore grade intersections were located. The best one assayed Ag 60.11 oz/ton Au 0.07 oz/ton over 2.5'. In the lower mine (2900 level) a total of 984' were drilled. The best intersection assayed Ag 28.67 oz/ton, Au 0.28 oz/ton over 2.2'.

DEC: Two underground machines operated all month, one in the lower mine and one in the upper mine.

In the lower mine (2900 level), 1,036' were drilled with several ore grade intersections cut. The best ran 51.34 oz/ton Ag, 0.26 oz/ton Au over 4.5'.

In the upper mine, 1,206' were drilled with several ore grade intersections cut. The best ran 209.40 oz/ton Ag, 0.04 oz/ton Au over 5.0'.

FAME **GRAM – MONTHLY REPORT FO.** Ref. No: E23 Date: 01/13/88 Company Name: IGF Metals Inc. Contact: L. J. Manning Project Name: Beaverdell Title: President SE of Beaverdell Location: Phone: (604)688 - 4557Previous Budget:\$ 2,659,378 Current Budget:\$ 308,000 Grant:\$ 30,000 Location: District Geologist: R. Meyers _____ NTS Reference: 82E6E Commodity Sought: AG Visited By: Proportion of FAME Funding to Total Budget: 9.74% Proportion of Total MEIP Funds on Project: 0.98% ______ Forecast vs Actual Project Expenditures: ACTUAL MONTH FORECAST VARIANCE \$ \$ \$ April 87 3,300 1,800 1,500) (May 87 19,800 19,900 100 June 87 20,000 16,000 4,000) July 87 7,500 6,700 800) (87 61,500 48,200) Aug 13,300 (FAME Grant Issued Sept 87 11,000 11,000) 0 67,700 12,000 55,700) in 1986/87?: No 87 OctNov 87 90,000 3,400 86,600) Amount of Previous Dec 87 35,000 0 35,000)88 5,000 0 Grant: N/A Jan Feb 88 2,300 0 0 March 88 Agreement 0 Returned: Yes TOTAL: 323,100 73,100 _____ ================ Budgeted Funds Remaining: \$ 250,000 Capsule Summary of Project: Adjacent to Teck property at Beaverdell.

1987/88 Program: Survey and drill to delineate reserves.

Comments: REM will visit in fall when visiting neighbouring Teck operation.

Progress:

SEPT: Horth-South grid lines spaced at 100 m were blazed and flagged over most of the 30 claim group during May and June. Soil samples were taken at 25 m intervals on alternate lines, and analyzed for gold, silver, and arsenic. All previous reports were studies. Most of the reported old workings were recovered in the field and plotted on the grid map, and rock chip sampling of obvious veins and showings was completed. Areas of interest were noted, and it was decided to extend all lines over previously ungrided claims and complete soil sampling of all lines at the 25 meter interval flags. Air photo mosaic negatives were made on the same scale so that probable swamp anomalies etc could be properly graded.

DEC: The results of three holes are described as follows:- DDH# 87-1 ... No values, strong fault zone. DDH# 87-2 ... Intercept feet 50.5-35.0, Feet of core length 2.5, Feet of True Width 1.06, Au .03, Ag 71.94, Silver assayztrue width = 76, Good vein. DDH# 87-3 ... Intercept Feet 40.5-44.5, Feet of Core Length 4.0, Feet of True Width 1.69, Au .02, Ag 39.32, Silver Assayztrue Width=66, Good wide

vein.

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Bozer trenching, mapping and sampling of several of the anomalies commenced with 2 anomalies being eliminated and one found to be the continuity of a known deposit on Teck ground. Several other specimens of vein material with economic potential were also found. Additional detailed geochemistry is recommended on some areas.

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FA PROGRAM - MONTHLY REPORT RM

Ref. No	: M1	Date: 02/25/88			
Company Name: Teck Corporation Project Name: Beaverdell Location: 100 km S of Ke			etting Manager 484-5510		
Previous Budget:\$75,000,000	Current Budget:\$	607,250 Grant	\$110,000		
Location: District Geologist: R. Meyers NTS Reference: 82E6E Commodity Sought: AG Visited By: Proportion of FAME Funding to Total Budget: 18.11% Proportion of Total MEIP Funds on Project: 7.75%					
	Forecast vs Actual Project Expenditures:				
		ECAST AC	CTUAL V S	ARIANCE \$	
`<`_\\	April 87 May 87 June 87 July 87	0 0 25,000 40,000	0 0 22,000 (39,000 (3,000) 1,000)	
FAME Grant Issued		55,000 55,000	48,000 (46,000 (7,000) 9,000)	
in 1986/87?: Yes		45,000	50,000	5,000	
Amount of Previous Grant: 200,000	Dec 87 Jan 88	40,000 25,000 25,000 20,000	43,000 38,000 25,000 0	3,000 13,000 0	
Agreement	March 88	0	ŏ		
Returned: Yes	TOTAL: 3	30,000	311,000		
Capsule Summary of Project: Delineate reserves to extend mine life.	===== Budgeted Funds R	emaining: \$	19,000		
LASSWARA FARAFIAN IA ABIANA STRA TTTC'					

1987/88 Program: 6500 m underground diamond drilling in lower and upper mines, 2700 m surface diamond drilling, surface stripping, trenching, 150 m drift and crosscuts.

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Progress:

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SEPT: Stripping on the Bell claim and Pueblo fraction revealed indications of mineralization that require more work. Two drill pads were cleared on the Pueblo and Rob Roy claims. In the lower mine, drilling in 2901 drift attempted to locate hanging wall stringers and a down dip continuation of the main ore zone with only limited success.

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NOV: Two machines operated all month. In the upper mine, 1,260' were drilled and two ore grade intersections were located. The best one assayed Ag 60.11 oz/ton Au 0.07 oz/ton over 2.5'. In the lower mine (2900 level) a total of 984' were drilled. The best intersection assayed Ag 28.67 oz/ton, Au 0.28 oz/ton over 2.2'.

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In the upper mine, 1,206' were drilled with several ore grade intersections cut. The best ran 209.40 oz/ton Ag, 0.04 oz/ton Au over 5.0'.

JAN: One underground machine operated all month in both the lower and upper mines. Intersections of interest came from the lower mine where the best intercept ran Ag 22.32 oz/ton, Au 0.06 oz/ton over 3.3'.

FEB: One underground diamond drill will operate all month.

AME PROGRAM - MONTHLY REPORT FORM

Ref. No	: M1	Date: 12/1	5/87	
Company Name: Teck Corporati Project Name: Beaverdell Location: 100 km S of Ke			. Goetting ine Manager 604)484-5510	
Previous Budget:\$75,000,000	Current Budget:	\$ 607,250 G	rant:\$110,000	
Location:	District Geolog NTS Reference: Commodity Sough Visited By: Proportion of F Proportion of T	82E6E t: AG AME Funding t	o Total Budge	
		s Actual Proj seccessos oRECAST	ect Expenditu ect Expenditu actual	res: vARIANCE
	April 87	\$ 0	\$ ()	\$
/_//	May 87 June 87 July 87 Aug 87	0 25,000 40,000 55,000	$0 \\ 22,000 \\ 39,000 \\ 48,000$	(3,000 (1,000 (7,000
FAME Grant Issued in 1386/87?: Yes	Sept 87 Oct 87 Nov 87	55,000 45,000 40,000	46,000 50,000 43,000	(9,000 5,000 3,000
Amount of Previous Grant: 200,000	Dec 87 Jan 88 Feb 88	25,000 25,000 20,000	0 0	
Agreement Returned: Yes	March 88 TOTAL:	0	0	
	=== Budgeted Funds	Remaining:	========= \$ 82,000	

Capsule Summary of Project: Delineate reserves to extend mine life.

1987/88 Program:

6500 m underground diamond drilling in lower and upper mines, 2700 m surface diamond drilling, surface stripping, trenching, 150 m drift and crosscuts.

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