

Re: Applied Research / GIANT - JOINT VENTURE (G.A.R.)

ASSUMPTIONS: ① GIANT SELLS CRUDE As_2O_3 TO G.A.R.

② JOINT VENTURE PRODUCES C.A. + RESIDUE.

③ JOINT VENTURE ~~SELLS CRUDE~~ ^{THREATS OR DELIVERS RESIDUE} BACK TO GIANT.

④ JOINT VENTURE SELLS C.A.

⑤ G.A.R. PRODUCES 20,000,000 lbs CCA EQUIVALENT (29% As_2O_3 CONTENT)
5,800,000 lbs As_2O_3

1. CRUDE SALES: CRUDE As_2O_3 HAS A VALUE IN THE MARKET PLACE BASED ON CONTAMINATED As_2O_3 . REFINED MATERIAL IS AVAILABLE FOR 40¢ U.S. / lb. TO RECOVER AND SHIP CRUDE WITH COST MONEY. PRICE SHD COVER GIANT'S COSTS, RETURN A MARGIN OF PROFIT AND STILL ARRIVE AT G.A.R. WITH ENOUGH PRICE ADVANTAGE TO MAKE G.A.R. DESIROUS OF RECEIVING IT.

CURRENT PRODⁿ IS 83% As_2O_3 : 2000 lbs CRUDE = 1660 lbs. As_2O_3
@ 95% RECY YIELDS = 1557 lbs. As_2O_3
@ 300/TON SHIPPING COST IS 19¢ Cms. = 14¢ U.S.

UNDERGROUND CRUDE IS 65% As_2O_3 : 2000 lbs CRUDE = 1300 lbs As_2O_3
@ 90% RECY YIELDS = 1170 lbs. As_2O_3
@ 300/TON SHIP COST IS 25.6¢ Cms = 19¢ U.S.

FOR CALCULATION OF RETURN ASSUME A 50:50 BLEND. FREIGHT EQUIV. 16 1/2¢ U.S. PROVIDE FOR AN ADVANTAGE TO G.A.R. OF 10¢ U.S. / lb.

I.E. COST TO G.A.R. = 30¢ U.S. / lb.

FREIGHT COST = 16 1/2¢

SOLID LIQUID SEPⁿ = 5¢

? COMBINED TOTAL PROCESS ABOUT 15¢

PAYBACK TO GIANT = 8 1/2¢ / lb. RECOVERED As_2O_3

@ 5.8×10^6 lbs. As_2O_3 = \$493,000 U.S. / yr. = \$670,000 Cms. / yr.

NOTE: NO ALLOWANCE FOR RECOVERING CRUDE FROM U/G.

2. JOINT VENTURES (G.A.R.)

COST OF As_2O_3 = 30¢ / lb. As_2O_3 RECOVERED.

CAPITAL COST \$3,000,000 TOTAL

JOINT CONTROLS 75:25 BY VIRTUE OF \$2,700,000 INVESTMENT.

APPLIED RESEARCH ACTIVE 25% AS FOLLOWS:

10% FOR TECHNOLOGY

5% FOR MARKETING RESPONSIBILITY

10% FOR INVESTMENT.

25%

RAW MAT'L + OPERATING COSTS:

As_2O_3 30¢ / lb. RECD = \$0.087 / lb. C.C.A.

CuO 90¢ / lb. ADDED = \$0.162 / lb. C.C.A.

Cr_2O_6 BY OTHERS ~~\$0.070 / lb. C.C.A.~~ 0

Ammonia @ \$0.102 / lb. \$0.140 / lb. C.C.A.

Oxygen @ \$0.090 / lb. \$0.070 / lb. C.C.A.

Solid / Liquid Serv INCL. IN As_2O_3 PRICE = 0

OPERATING & MAINT & SERVICES: 0.241 / lb. C.C.A.

\$0.70 / lb. C.C.A.

0.04 SALES DISCOUNT

C.C.A. Sells FOR ABOUT \$0.88 U.S. / lb. Dry BASIS

CONTENT IS: 34% As_2O_3 [29% As_2O_3]

48% Cr_2O_6

18% CuO

0.88 MARKET

- 0.04 DISCOUNT

0.84

- 0.70 OPERATING

0.14

MARGIN (P.R.) SAYS IS \approx 9¢ / lb. USING RECOVERED As_2O_3 ~~15¢ / lb. USING RECOVERED As_2O_3~~

BEFORE OPERATING COSTS SAY 15¢ / lb.

14¢ RETURN TO J.V.

@ 20,000,000 lbs / yr. = \$2.8 x 10⁶ U.S.

75% JOINT PORTION = \$2,100,000 U.S.

25% APPLIED RES. = \$700,000 U.S.

\approx \$2,856,000 C.A.

3. RESIDUE CURRENT PRODUCTION CONTAINS 0.2 oz/tol CRUDE.

83% As_2O_3 AND 95% RECY

5,800,000 lbs As_2O_3 RECY IS RECY.

7,356,000 lbs CRUDE RECY

$$\div 2000 = \underline{3678 \text{ TONS CRUDE / YR.}}$$

∴ CONTAINS 735.6 oz. GOLD

RESIDUE IS TREATED LOCALLY AND J.V. PAID FOR 90% OF COST.

JOINT VENTURE ~~SHOULD~~ IS PAID FOR 90% OF GOLD CONTENT

AT EXISTING RATES AT TIME OF SALE.

PAID FOR 662 oz. @ \$325 U.S./oz = \$215,000 U.S./YR.

GROSS PORTION \$161,250 U.S. = \$219,000 CAN.

APPLIED RES. PORTION \$53,750 U.S.

778 TONS RESIDUE @ \$150⁰⁰/TON CAN. = \$86,000 U.S.

* IF WE SHIPPING A TONNAGE OF CURRENT INV. PLUS U/G. RESERVES.

74% As_2O_3 ; RECY 92.5% ; GRADE 0.40 oz/t.

5,800,000 lbs As_2O_3 RECY

8,475,000 lbs CRUDE

$$\div 2000 = \underline{4237 \text{ TONS CRUDE}}$$

∴ CONTAINS 1695 oz. Au.

JOINT VENTURE IS PAID FOR 90% OF 4237 X 0.40 = 763 oz.

$$763 \times \$325 = \$248,000 \text{ U.S./YR.}$$

APPLIED RESEARCH EARNS \$62,000 U.S.

$$\begin{aligned} \text{GROSS WOULD GROSS} & (0.9)1695 - 763 = 762 \\ & \underline{762} = \underline{762 \text{ oz.}} \end{aligned}$$

$$+ 75\%(763)$$

$$\begin{aligned} & \underline{572} \\ & 1334 \text{ oz.} \end{aligned}$$

$$1334 \times 325 = \$433,550 \text{ U.S.} = \boxed{\$590,000 \text{ CAN.}}$$

* IF RETURNED TO UK. FOR TREATMENT THE FREIGHT COSTS WOULD ACCRUE TO GROSS

$$1338 \text{ TONS RESIDUE @ } \$150^{00}/\text{TON} = \$200,625 \text{ CAN.}$$

Summary, 20,000,000 lbs. C.C.A.

	GIANT.	APPLIED.
CAPITAL COST. (U.S. \$)	\$ 2,700,000	300,000
REVENUE FROM CRUDE (U.S. \$)	443,000	
REVENUE FROM J.V. (U.S. \$)	2100,000	700,000
REVENUE FROM GOLD (U.S. \$) AFTER FREIGHT	$\begin{array}{r} 96,750 \\ \hline 75,250 \end{array}$	$\begin{array}{r} 32,250 \\ \hline 53,750 \end{array}$
TOTAL REVENUE	\$ 2,668,250	\$ 753,750
WASTE-OFFS	300,000	
TAXES @ 35%	828,950	
NET AFTER TAX.	1,539,300	

SOME VARIATIONS ON HANDLING RESIDUE

ABOVE CONTEMPLATES GIANT BUYING RESIDUE FROM G.A.R. THIS WAS TO ENSURE THAT GOLD CONTENT IS PROPERTY OF GIANT. WE ARE RESPONSIBLE FOR COST OF SHIPPING RESIDUE, TREATING RESIDUE, DISPOSING OF REVENUE.

- { THE INCENTIVE FOR TREATING AT THE G.A.R. LOCATION IS FOR US.
- { THE " " RECLAIMING HIGH GRADE (Au) CRUDE FALLS TO US.

BEST BET. { POLITICS OF DISPOSAL AND PROTECTION FROM FREIGHT COSTS MAY MAKE IT DESIREABLE TO SHARE THE RISKS/REWARDS WITH G.A.R. SIMILARLY TO ENCOURAGE G.A.R. TO TREAT/ACCEPT LOW GRADE CRUDE THERE MUST BE AN INCENTIVE.

WITH CURRENT PRODⁿ IT WOULD BENEFIT GIANT TO HAVE G.A.R. SHARE DISPOSAL.

WITH U/G. RECY OF CRUDE APP. RESERVE WOULD NOT 87,000/YR. U.S. VS 62,000

GIANT " " 261,000/YR. U.S. VS. 286,000

COMPARISON OF As_2O_3 JOINT VENTURE PROFITS (Net Operating Basis Type)
(U.S. \$)

	P. J. R.	S. O. F.	K. B.
@ Assum Prod ⁿ 20,000,000 C.C.A c	\$ 4.02 M	\$ 2.91 M	\$ 3.42 M
	BEFORE PAYMENT TO GRANT FOR CLDS No Gold Revenue	BEFORE PAYMENT TO GRANT FOR As_2O_3 Incl. 0.169 M. Gold	INCLUDES 8 1/2 % TO GRANT Incl. 0.128 M Gold
Ass Gold. Revenue From Carc Lost	\$ 0.150 —	— —	— 0.493
	4.17	2.91	3.91