

To: Dino Basso
From: Paul Kinter

007115

Re: 1990 Production Forecast

Please find attached a table showing the production for 1990. The waste production has been converted ^{from tonnes} to Bank cubic meters (BCM) using the density factors summarized on the last page.

The density factor for Toro waste (2.25 tonnes/BCM), calculated from the two surveyed truck loads during the recent truck weight program, has not been considered yet.

If we go ahead and report waste production in volumes we suggest to use BCM's rather than BCT's since Vargorda and Orum will be metric and the Toro pit is mined out in 1991. The truck load factors currently used should also be changed from tonnes to BCM. We suggest the following load factors for all 170 T trucks:

	Current A	New
ROCK WASTE	125 t	50 BCM (-135 t)
SULPHIDE WASTE	125 t	36 BCM (-136 t)
OVER BURDEN	125 t	65 BCM (-136.5 t)
ORE	127 t	140 t

These load factors must be checked on an ongoing basis and compared with the reconciled monthly production, and if necessary, adjustments should be made to reflect the most realistic situation.

		245 PH
WST		
S-PHASE	EPHOS	GAVX
W	W	W
139	143	

MEMO

- NEW TRU
- RECALCULATE
MTD
MARCH

1990 Production Summary by p.i
WASTE (BCM x 1,000)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
FARO	337	266	323	327	221	262	164	172	132	104	83	77	2,468
GRUM	290	262	290	275	255	413	574	0	579	583	802	923	5,246
VANGORDA	0	0	0	0	0	0	0	193	312	322	0	0	827
TOTAL	627	528	613	602	476	675	738	365	1,023	1,009	885	1,000	8,541

ORE (Tonnes x 1,000)

FARO	494	549	456	482	800	895	477	461	504	563	566	653	6,900
GRUM	0	0	0	0	31	0	0	0	0	0	116	0	147
VANGORDA	0	0	0	0	0	0	0	143	0	0	0	0	143
TOTAL	494	549	456	482	831	895	477	604	504	563	682	653	7,190
UNDER GROUND	4	15	18	39	51	50	51	51	49	50	49	51	478

MATERIAL DENSITIES
(average)

GEOLOGICAL MODEL

WEIGHT STUDY

TONNES/BCY

TONNES/BCM

TONNES/BCY

GRUM

ROCK WASTE	2.691	
SULPHIDE WASTE	3.251	
OVER BURDEN	2.099	
ORE (4-5%)	3.329	
ORE (5-7%)	3.364	
ORE (+7%)	3.883	
ALL ORE	3.653	
TILL	2.10	

NO STUDY DONE YET

VANGORDA (VIV DEC 89)

ROCK WASTE	2.700	
SULPHIDE WASTE	3.570	
OVER BURDEN	2.100	
ORE (3-4%)	3.330	
ORE (4-5%)	3.190	
ORE (+5%)	3.860	
ALL ORE	3.760	

NO STUDY DONE YET

FARO (8908 Model)

ROCK WASTE	2.049	2.696	
SULPHIDE WASTE	2.865	3.770	
ORE (3-5%)	2.782	3.661	
ORE (6-6%)	2.930	3.855	
ORE (+6%)	3.116	4.100	
ALL ORE	2.992	3.937	

2.25 (based on two
(2) surveyed loads)