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CURRAGH RESOURCES INC

INTER-OFFICE MEMORANDUM

FARO OFFICE

DATE: June 13, 1990

TO: ERIC BEAUMONT
MANAGER OF PROCESSING

FROM: DAVE TENNEY
CHIEF GEOLOGIST

SUBJECT: COMMENTS ON VANGORDA MINERALOGY
FROM METALLURGICAL VIEWPOINT

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There are three main ore types at Vangorda:

- 1) Baritic ore with fine grained pyrite (approx. 75%)
- 2) Massive pyritic ore (approx. 20%)
- 3) Ore bearing quartzite (approx. 5%)

GOLD:

Recent assaying for gold shows elevated values in the baritic ore zones, amounting to approximately 1 1/2 g/t on average (no calculator yet available), however in places it is higher. There are also some very high gold (up to 30 g/t) assays from graphitic quartzite which are potentially interesting, since it may be economically viable to mine this gold even if there are no accompanying base metals. The continuity of the mineralization and the recoverability of the gold would of course be major controlling factors. Preliminary assaying suggests that the high gold values are not isolated "spikes" as grade in contiguous samples is also elevated. In addition the assay lab says rechecks on the original sample are very good, which indicates an homogeneous distribution probably of fine grained gold (I would not rule out the possibility of gold nuggets which, if they occur, will be found behind mill liners and in pump boxes and sumps). The total value of gold assuming 1 g/t for the approximately 5 million tonnes of ore at Vangorda is over \$60 million (\$370 Us/oz; \$1 Cdn - \$.85 US).

SILVER:

Silver is likely to occur in association with lead (galena) and in solid solution in chalcopyrite present in the ore which probably grades around .2% copper (no calculation available). Statistical work at Faro suggests some part of the silver is contained in discrete silver minerals and this may also be true at Vangorda.

COPPER:

Copper occurs in the Vangorda ore as chalcopyrite. The ore grade is about 0.2% copper. The value of copper in the ore (Cu= \$1 C/lb) is about \$20 million. The attached table from Cam Reed lists copper gold and silver assays by rock type:

20 = graphitic quartzite
30 = pyritic quartzite
40 = siliceous semimassive pyrite
50 = massive pyrite
60 = baritic massive pyrite
120 = schist

The numbers suggest we should give some thought to recovering gold, silver and copper from the Vangorda ore. I suspect that the copper concentrate would contain significant precious metals values.

D. Tenney.

Dave Tenney
Chief Geologist

DT:cc

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VANCO.2DA Cu - Au - Ag STATS. Average in order

4EG
4EC
4C
4A
4L

Cu Assays by Ore Type

%	Min	Max.	Mean.	# Samples	Dist
20'S 4AED	0.01	1.62	0.11	292	log N
30'S 4CO	0.04	0.85	0.30	258	N
40'S 4EC	0.02	1.16	0.32	152	N
50-60'S 4EG	0.01	0.66	0.15	404	LN
120 4L	0.01	1.93	0.13	225	LN

Au Assays by Ore Type

g/t	Min	Max	Mean	# Samples	Dist.
20'S 4AED	0.01	2.60	0.56	0.02 oz/ton 373	LN + N
30'S 4CO	0.10	6.65	0.79	0.03	349 LN + N
40'S 4EC	0.02	6.48	1.06	0.035	275 N
50-60'S 4EG	0.01	4.18	0.87	0.03	727 N
120 4L	0.01	7.17	0.25	0.009	260 LN

Ag Assays by Ore Type

g/t	Min	Max	Mean	# Samples	Dist
20'S 4AED	0.10	98.0	26.3	379	LN + N
30'S 4CO	0.1	224.0	16.3	365	LN
40'S 4EC	0.1	64.9	19.9	291	LN
50-60'S 4EG	0.1	334.0	65.8	737	N
120 4L	0.0	166.0	11.5	267	LN