Vangorda Mine Production Metallurgy

CURRAGH RESOURCES INC.
Inter-Office Memorandum

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RE: Vangorda Metallurgical Composite Descriptions and Characteristics

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Metallurgical composites of diamond drillcore samples from drilling projects completed in 1987 and 1988 were sent to Lakefield research for metallurgical testing. 5 composites separated on the basis of ore type, geographic location in the orebody, weathering and porosity were sampled from the 1987 DDH core and sent to Lakefield in May 1988. A description of each composite is included below.

In March 1990, an additional composite representing early more oxidized high grade feed from the SE section of the orebody located between vertical X-sections 20E and 26E was sampled from the 1988 drillcore with bench testing to be completed at Faro.

Description of 1988 Vangorda Metallurgical Composites

1a - Visibly oxidized, porous, Massive baritic/pyritic sulphides. No separation based on geographic location in the orebody, however most of the samples were taken from holes drilled in the shallow SE section of the orebody. The gangue mineralogy is medium to fine grained pyritic/baritic sulphide/sulphate which will contain significant iron and base metal oxides. Minor quartz, muscovite, chlorite, pyrrhotite, magnetite, calcite and dolomite are common. Accessory chalcopyrite, marcasite, tetrahedrite are also present. This composite is the most refractory of all the ore types.

1b - Moderately oxidized, non porous high grade ore with same mineralogy as 1a. No separation based on geographic location in the orebody. These samples were excluded from 1a because of the possible deleterious effects of drilling mud which is likely to be more abundant in the porous composite 1a.

2 - High grade massive nonporous pyritic/baritic sulphide which is moderately oxidized to fresh and located in the SE section of the orebody. Contains minor quartz, muscovite, chlorite, pyrrhotite, calcite and dolomite. Accessory magnetite, chalcopyrite, marcasite, and tetrahedrite are common. This composite represents the bulk of early feed from SE section of the vangorda orebody.

3 - Slightly oxidized to fresh, high grade massive pyritic/baritic sulphide located in the NW section of the orebody. This composite is mineralogically similar to composite 2. This composite represents the bulk of the millfeed NW of X-section 12E.

4 - Fresh to slightly oxidized, medium grade ribbon-banded carbonaceous quartzite. No separation based on geographic location in the orebody. Pyrite content ranges from 10 to 20%. Contains the lowest concentration of copper and precious metal of all the ore types. The bulk of this ore type is located in the early benches in the NW section of the deposit. Some minor thin bands are located in the SE section. This ore type represents about 15% of the total high grade feed.

5 - Low grade, non-carbonaceous, semi-massive footwall quartzite. This material will likely make up the bulk of dilution expected in the main ore zone in both NW and SE sections. Pb+Zn is generally less than 2% with significant gold content (near 1 gram/tonne). Pyrite content ranges from 30% to 60% and is generally highest near the high grade contact. Contains minor magnetite, pyrrhotite, muscovite, and chlorite.

Table 1: Head Analyses of Composites (from lakefield research)

Composite	Assays %, g/t											
	Cu	Pb	Zn	Fe	S	Mn	Hg	Au	Ag	C(T)	C(g)	Po
Comp 1A	0.26	3.95	4.20	26.8	28.5	0.45	0.0018	0.57	49.1	1.47	0.057	11.2
Comp 1B	0.22	5.75	6.69	28.1	28.9	1.16	0.0049	0.79	77.8	1.71	0.049	17.0
Comp 2	0.20	4.75	5.70	24.5	26.8	0.79	0.0036	0.93	64.5	1.67	0.049	12.5
Comp 3	0.15	3.96	5.35	21.7	28.2	0.61	0.0043	1.57	64.8	0.20	0.015	10.3
Comp 4	0.037	2.20	3.87	7.54	8.83	0.054	0.0023	0.44	31.2	2.20	0.64	12.5
Comp 5	0.36	0.72	0.89	29.1	26.6	0.58	0.00023	1.60	12.7	1.01	0.060	9.40
Master	0.22	3.76	4.47	24.2	27.1	0.71	0.0025	0.96	57.9	1.37	0.081	17.2

Table 2: Statistics by Ore Type - V9009 Interpretation
Within VIV 89 ultimate pit - Total Mineral In-situ undiluted sulphide inventory. No grade cutoff applied.

Rock Type	Tonnes	%Pb+Zn	Ag g/mt	Au g/mt	%Cu
SE SECTOR					
Massive Sulphide	1696640	10.05	56.36	0.921	0.21
Footwall noncarbonacous qtzite	1001800	2.22	18.41	0.915	0.31
Carbonaceous qtzite	174590	7.23	35.71	0.641	0.12
NW SECTOR					
Massive Sulphide	3232840	10.05	56.27	0.779	0.13
Footwall noncarbonacous qtzite	1014350	2.09	16.72	0.904	0.31
Carbonaceous qtzite	1249750	4.82	26.29	0.476	0.07
TOTAL PIT					
Massive Sulphide	4929480	10.05	56.30	0.828	0.16
Footwall noncarbonacous qtzite	2016150	2.15	17.56	0.909	0.31
Carbonaceous qtzite	1424340	5.11	27.44	0.496	0.08