

CURRAGH RESOURCES INC.

Inter-Office Memorandum

TO: Gregg Jilson
Vice-President, Exploration
Whitehorse Office

FROM: Lee Pigage
Senior Geologist
Whitehorse Office

DATE: February 2, 1989

RE: Vanagorda Composite B and Sulphide Waste Petrography

Enclosed is the report from Vancouver Petrographics on 11 samples selected from the drill hole intervals forming composite B and the sulphide waste. The altered phyllites consist dominantly of quartz, muscovite, and chlorite with minor pyrrhotite and ferroan dolomite. I talked with J. Shearer about the carbonate; he felt the physical and microscopic properties of the carbonate were not consistent with siderite.

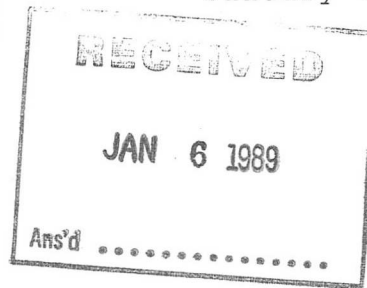
The low grade ores also contain significant pyrrhotite. This substantiates the petrography completed by Lakefield on the metallurgical composite samples.

I asked Mr. Shearer to return the polished thin sections, reject blocks and samples to our office.





January 4, 1989



Mr. Peter M. Healey
Robinson SRK
#45 - 1199 Lynn Valley Road
N. Vancouver, B.C.
V7J 3H2

Dear Peter:

At your request I am providing you with the data obtained so far from the humidity cell tests being performed on the Curragh rock samples. The leachate analyses are attached.

As I explained to you, the tests in which sulphide-oxidizing bacteria were added are being restarted due to problems with obtaining a stable pH (around 3.5) in time to get the tests started at the same time as the un-inoculated tests. We should be complete with the preparations for the repeat tests this week.

Also attached are details of the phyllite and sulphide samples received at Coastech on November 18 and 28 respectively. A composite of the sulphide rock (Composite A) was prepared by combining the samples in the weight ratio shown following jaw crushing of the individual samples to minus 1 inch. A 10 kg portion of the jaw crushed composite was riffle split out and cone crushed to minus 1/4 inch (6 mm). 1 kg samples were then split out for the humidity cell tests.

The phyllite sample composite (Composite B) was prepared by combining all of the samples as-received. The composite was then jaw and cone crushed to minus 1/4 inch and 1 kg samples split out for the testwork.

Further sub samples of the two composites were split out as required for analyses (sulphur species and ICP) and acid-base accounting tests (further pulverized to minus 200 mesh).

Yours very truly,

A handwritten signature in dark ink, appearing to read "R. Lawrence", written over a light-colored background.

COASTECH RESEARCH INC.

Richard W. Lawrence
Vice President, Technical

CURRAGH SULPHIDE ROCK SAMPLES

Received at Coastech : November 28, 1988

HOLE/LABEL	INTERVAL	WEIGHT (kg)	COMPOSITE (%)
4C	36.0 - 42.0	6.255	10.5
	36.0 - 42.0	5.095	
	36.0 - 42.0	3.070	
4C37	25.2 - 33.5	4.725	14.6
	25.2 - 33.5	6.105	
	25.2 - 33.5	6.340	
	25.2 - 33.5	5.955	
	25.2 - 33.5	4.965	
AC3	17.0 - 26.0	4.500	15.8
	17.0 - 26.0	4.240	
	17.0 - 26.0	5.440	
	17.0 - 26.0	5.840	
4C0	32.5 - 42.2	4.670	17.0
	32.5 - 42.2	5.440	
	32.5 - 42.2	6.045	
	32.5 - 42.2	6.985	
V26R	114.0 - 118.0	2.365	7.0
	118.0 - 123.0	3.280	8.8
	123.0 - 128.0	3.745	8.8
	128.0 - 138.0	6.250	17.5

HUMIDITY CELL TESTING
LEACHATE ANALYSIS

SULPHIDE COMPOSITE

CYCLE	WATER EXTRACT ICP ANALYSIS (mg/L)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	<0.2 *	<0.2	<0.2	<0.01	<0.01	<0.015	<0.015	<0.015	<0.01	<0.015	<0.05	<0.01	<0.005	<0.03	<0.025	<0.005
1	< 0.20	< 0.20	< 0.20	0.089	0.130	111.0	<0.015	0.40	0.012	0.066	0.49	19.50	34.90	< 0.03	0.21	17.70
2	< 0.20				0.150				0.022	0.360	1.62		28.80			25.20
3																35.8
4																23.2
5																
6																
7																
8																
9																

* detection limit in mg/L

CYCLE	CUMULATIVE WATER EXTRACT ICP ANALYSIS (mg/100 g sample)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	340 **	na	271	2.0	0.7	210	4.1	19.6	232	>15%	460	180	169	0.1	3.5	597
1	0.01	0.01	0.01	0.00	0.01	4.94	0.00	0.02	0.00	0.00	0.02	0.87	1.55	0.00	0.01	0.00
2	0.02				0.01				0.00	0.02	0.09		2.77			1.06
3																
4																
5																
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8																
9																
10																

** assay in mg/100g unless otherwise indicated

HUMIDITY CELL TESTING
LEACHATE ANALYSIS

SULPHIDE COMPOSITE (Inoculated)

CYCLE	WATER EXTRACT ICP ANALYSIS (mg/L)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	<0.2 *	<0.2	<0.2	<0.01	<0.01	<0.015	<0.015	<0.015	<0.01	<0.015	<0.05	<0.01	<0.005	<0.03	<0.025	<0.005
1	< 0.02	< 0.02	< 0.02	0.052	<0.010	92.6	<0.015	0.032	<0.010	< 0.015	< 0.05	16.80	18.90	< 0.03	0.046	4.52
2	< 0.02		0.42		1.010				1.960	14.600	2.98		104.0			345.00
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300
↓
agglomerated

* detection limit in mg/L

CYCLE	CUMULATIVE WATER EXTRACT ICP ANALYSIS (mg/100 g sample)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	340 **	na	271	2.0	0.7	210	4.1	19.6	232	>15%	460	180	169	0.1	3.5	597
1	0.00	0.00	0.00	0.00	0.00	5.46	0.00	0.00	0.00	0.00	0.00	0.99	1.12	0.00	0.00	0.00
2	0.00				0.04				0.07	0.52	0.11		4.80			12.21
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10																

** assay in mg/100g unless otherwise indicated

HUMIDITY CELL TESTING
LEACHATE ANALYSIS

PHYLLITE COMPOSITE

CYCLE	WATER EXTRACT ICP ANALYSIS (mg/L)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	<0.2 *	<0.2	<0.2	<0.01	<0.01	<0.015	<0.015	<0.015	<0.01	<0.015	<0.05	<0.01	<0.005	<0.03	<0.025	<0.005
1	< 0.20	< 0.20	< 0.20	0.054	<0.010	128.0	<0.015	0.04	<0.010	< 0.015	< 0.05	31.30	6.38	< 0.03	0.03	0.990
2	< 0.20		0.038		0.079				0.051	1.850	0.22		9.80			16.00
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9																

* detection limit in mg/L

CYCLE	CUMULATIVE WATER EXTRACT ICP ANALYSIS (mg/100 g sample)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	1080 **	<0.5	22.5	24	0.1	460	3.5	4.3	29.3	6110	77	720	132.5	0.3	4.1	182
1	0.01	0.01	0.01	0.00	0.00	6.41	0.00	0.00	0.00	0.00	0.00	1.57	0.32	0.00	0.00	0.00
2	0.02				0.00				0.00	0.07	0.01		0.68			0.59
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10																

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HUMIDITY CELL TESTING
LEACHATE ANALYSIS

PHYLLITE COMPOSITE (Inoculated)

CYCLE	WATER EXTRACT ICP ANALYSIS (mg/L)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	<0.2 *	<0.2	<0.2	<0.01	<0.01	<0.015	<0.015	<0.015	<0.01	<0.015	<0.05	<0.01	<0.005	<0.03	<0.025	<0.005
1	< 0.20	< 0.20	< 0.20	0.039	<0.010	145.0	<0.015	0.015	<0.010	< 0.015	< 0.05	36.70	4.51	< 0.03	<0.025	0.28
2	< 0.20		0.015		<0.010				<0.010	< 0.015	< 0.05		2.79			0.75
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* detection limit in mg/L

CYCLE	CUMULATIVE WATER EXTRACT ICP ANALYSIS (mg/100 g sample)															
	Al	Sb	As	Ba	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	Zn
	1080 **	<0.5	22.5	24	0.1	460	3.5	4.3	29.3	6110	77	720	132.5	0.3	4.1	182
1	0.01	0.01	0.01	0.00	0.00	8.60	0.00	0.00	0.00	0.00	0.00	2.18	0.27	0.00	0.00	0.00
2	0.02				0.00				0.00	0.00	0.00		0.33			0.02
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10																

** assay in mg/100g unless otherwise stated