

820756

ROBERTSON RESEARCH CANADA LTD.
11584 East Evans Avenue
Aurora, Colorado 80014
303-750-3873

MEMORANDUM

TO: Dave S. Evans, Director,
Greenwich Resources Inc.

DATE: 2/4/83

FROM: John S. Hand

SUBJECT: Quadra Island Overburden Sampling Program

In an effort to establish the sources of the VLF geophysical conductors on the north half of the grid, 59 overburden holes were drilled with a small overburden drill (see attached Table). Drilling was performed by RCA Ltd and directly supervised by myself. Since the overburden was shallower than anticipated all of the pertinent conductors were tested. Generally the largest factor in the operation was the moving time between drill sites as the actual drilling went extremely smoothly.

Geophysical Implications

Over 90% of the geophysical anomalies were explained by the presence of graphitic zones in the limestone; the others by the presence of pyritic disseminations in the volcanics. I would not be overly disturbed by the presence of graphitic conductors on the Quadra property as they indicate that we are in the correct geological environment. Most, if not all, of the major gold camps in Canada are associated in some way with graphitic horizons.

Geochemical Implications

Initial results from the drilling suggest that the presence of marine clays above the basal till have adverse effects on any geochemical surveys in the area. The clay layer acts as an electrochemical filter to any secondary geochemical dispersion haloes that may be present. This justifies the erratic nature of the 1981 soil survey results and the ineffectiveness of the silt survey. Thus the anomalies that were indicated by the surveys probably only indicate areas of thin overburden or bedrock windows. This was found to be the explanation as I had an opportunity to ground check most of the copper, nickel and cobalt anomalies.

Although the preliminary deductions are negative there is still a distinct possibility for the basal till to exhibit

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primary geochemical dispersion from a bedrock source. The sampling method used is ideally suited for determining mechanical glacial transport assuming the target size is sufficiently large to produce a primary geochemical halo.

Procedures

At each drill site samples of the bedrock and basal till were collected. The bedrock samples should be examined under a stereoscopic microscope to determine the lithology and metallic mineral contents of the sample. It may also be useful to determine the trace element content of the bedrock sample to be used in correlation with the basal till analyses. All size fractions of the basal till sample should be analysed for trace element content as well as performing heavy mineral analyses. Once the correct procedures are determined on a random selection of the basal till samples the remainder should be treated accordingly. Once all the results have been obtained fundamental statistics, correlation coefficients and multiple regression techniques should be utilized to determine anomalous areas.

Massive Sulfide Boulders

Over twenty five massive sulfide boulders were discovered along a logging road on the west and north side of Stramberg Lake. This in itself is very encouraging should these boulders be traced back to a yet undiscovered source. Unfortunately the only reason they were found is that they were exposed along a logging road whereas had they been in the forest they would be thickly covered with moss and go undetected. All of the boulders contained a very high percentage of magnetic pyrrhotite which may be of some use in their prospection. Should their precious metal content be encouraging a survey could be designed using inexpensive metal detectors to prospect the boulder trains back to their source in vegetation covered areas.

Old Workings

Two old workings were examined on the west side of Stramberg Lake. One was a large recently bulldozed area 35m by 65m exposing an extremely irregular massive sulphide fissure vein for a length of approximately 10m. The vein, which varies from .5m to 1m in width, is vertical and strikes at 312 degrees and intrudes the Quatsino and Karmutsen formations associated with a porphyritic dike. It appears similar to the boulders found as it contains a very high percentage of magnetitic pyrrhotite with minor pyrite and chalcopyrite. The other working comprises a water filled adit trending at 305 degrees that goes in for approximately 30m on a vein or fissure controlled structure that is exposed above the adit for 78m. There appears to be about 3000 tons of waste material present in front of the

adit. The excavations above the adit comprise a water filled shaft and a few trenches. Mineralization mainly consists of pyrrhotite with minor chalcopyrite, pyrite and arsenopyrite in a fissure vein at least a metre wide hosted in the Karmutsen volcanics. Representative samples were collected from each working. The trace element results from these samples may be used in comparison with the boulder results in order to determine the boulders source.

Till Fabric Analyses

Very rudimentary till fabric analyses were performed on two gravel pits near the Quadra property in order to determine the glacial transport direction. It appears to be about 210 degrees, however some library research should be done to adequately ascertain the correct direction as it is vital in the determination of the source of the massive sulfide boulders as well as the interpretation of the basal till sampling program.

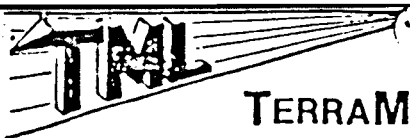
A handwritten signature in cursive script, appearing to read "John".

QUADRA ISLAND DRILLING SUMMARY

Drill Sample #	Location Line	Station	Total Depth(m)	Date
1	2400	-195	3	Jan 26
2	2400	-190	3	Jan 26
3	2400	-185	3.1	Jan 26
4	2400	-200	2	Jan 26
5	2400	-212	2	Jan 26
6	2400	-225	6	Jan 26
7	2000	-165	2	Jan 26
8	2000	-155	3	Jan 26
9	2000	-175	2	Jan 27
10	2000	125	3	Jan 27
11	2000	115	0	Jan 27
12	2000	105	0	Jan 27
13	2000	250	3.3	Jan 27
14	2000	240	3.5	Jan 27
15	2000	230	3.5	Jan 27
16	2000	260	2	Jan 27
17	2000	270	0	Jan 27
18	2000	345	2.5	Jan 27
19	2000	335	2	Jan 27
20	2000	355	2	Jan 27
21	2000	460	2	Jan 27
22	2000	470	1.8	Jan 27
23	2000	475	1.8	Jan 27
24	2400	210	3	Jan 28
25	2400	220	0	Jan 28
26	2400	230	7.5	Jan 28
27	2400	200	5	Jan 28
28	2400	190	0	Jan 28
29	1600	420	2.4	Jan 28
30	1600	430	3.4	Jan 28
31	1600	410	2.5	Jan 28
32	1600	400	2.8	Jan 28
33	1600	310	2	Jan 28
34	1600	320	2.3	Jan 28
35	1600	300	3.5	Jan 28
36	1600	290	0	Jan 28
40	1600	0	9	Jan 29
41	1600	10	0	Jan 29
42	1200	420	3	Jan 29
43	1200	410	2.3	Jan 29
44	1200	430	2.6	Jan 29
45	1200	445	4	Jan 29
46	1200	600	4	Jan 29
47	1200	615	2.5	Jan 30
48	1200	625	2.5	Jan 30
49	1200	805	2	Jan 30
50	1200	815	3.3	Jan 30
51	1200	800	3.3	Jan 30
52	800	960	12.2	Jan 30
53	800	928	4.1	Jan 30
54	400	0	2	Jan 30
55	400	-10	1.8	Jan 30
56	400	10	2	Jan 30
57	400	20	2.8	Jan 30
58	800	-30	0	Jan 30
59	800	-35	0	Jan 30

Average Depth 2.70
 Maximum Depth 12.2

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INTERIM

ANALYTICAL REPORT

Job # 83-013

Robertson Research

Date Feb. 1983

Client Project Quadra

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Sample No.	Cu ppm	Co ppm	As ppm	Au PPB.
<i>Drocks</i> L 4N D-14-54 Xover 2 M	33	7	17	14
54B "	22	2	7	4
55 010 W 1.8 M	50	9	25	6
56 " 2 M	43	12	9	6
56B "	39	9	14	4
57 020 E 2.8 M	18	1	6	
58B "	28	2	11	
L 8N D-14-52 960 E 12.2M	20	6	9	42
52B "	17	1	14	8
53 928 E 4.1 M	22	5	5	4
53B "	11	1	I.S.	8
58B Xover Bed R	188	27	2	4
59B 035 W Bed R	104	20	2	4
L12N D-14-42 420 E 3 M	55	17	89	50
42B "	39	20	36	40
43 410 E 2.3 M	128	15	83	4
44 430 E 2.6 M	44	8	76	4
44B "	20	-1	9	2
45 445 E 4 M	37	7	59	6
45B "	13	1	I.S.	8
46 600 E 4 M	29	11	61	
46B "	12	7	40	8
47 615 E 2.5 M	56	17	365	10
47B "	20	4	74	
48 625 E 2.5 M	33	15	90	2



ANALYTICAL REPORT

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Sample No.	Cu ppm	Co ppm	As ppm	Au
L12N D-14-48B 625 E 2.5 M	16	16	31	8
49 805 E 2 M	41	13	77	2
49B "	58	19	53	4
50 815 E 3.3 M	23	6	11	4
50B "	20	6	10	4
51 800 E 3.3 M	34	17		2
51B "	23	16		4
L16N D-14-29 420 E 2.4 M	138	15	40	12
29B "	70	8	8	8
30 430 E 3.4 M	119	15	109	16
30B "	223	10	36	4
31 410 E 2.5 M	98	12	118	14
31B "	31	6	29	6
32 400 E 2.8 M	112	24	146	12
32B "	23	3	9	2
33 310 E 2 M	82	11	136	10
33B "	57	5	167	52
34 320 E 2.3 M	108	15	69	26
35 300 E 3.5 M	143	22	45	16
36 290 E Bed R	11	7	19	2
36B "	13	6	3	22
40 BL 9 M	38	5	4	22
41B 010 E Bed R	132	13	1	22
L20N D-14- 7 165 W 2 M	36	5	26	22
7B "	16	-1	4	22



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Sample No.	Cu ppm	Co ppm	As ppm	
L20N D-14- 8 155 W 3 M	72	9	57	4
8B "	42	5	29	2
9 175 W 2 M	17	-1	9	2
9B "	18	1	11	4
10 125 E 3 M	55	15	52	4
10B " Bed R	163	3	4	8
11B 115 E Bed R	94	12	1	2
12B 105 E Bed R	129	11	3	2
13 250 E 3.3 M	67	15	50	4
13B "	34	4	42	4
14 240 E 3.5 M	38	9	11	2
14B "	28	5	33	2
15 230 E 3.5 M	42	11	8	2
15B "	29	8	10	3
16 260 E 2 M	45	9	48	2
16B "	16	1	10	2
17B 270 E Bed R	20	9	38	8
18 345 E 2.5 M	171	22	198	16
18B "	38	3	62	4
19 335 E 2 M	29	4	39	8
19B "	9	-1	4	6
20 355 E 2 M	155	28	199	12
20B "	27	5	31	2
21 460 E 2 M	29	8	9	2
21B "	31	7	2	16



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Sample No.	Cu ppm	Co ppm	As ppm	
<i>DIYI#</i>				
L20N D-14-22 470 E 1.8 M	46	16	28	4
22B "	39	8	101	<2
23 475 E 1.8 M	50	16	76	<2
L24N D-14- 1 195 W 3.0 M	55	8	61	6
1B "	11	2	14	12
2 190 W 3.0 M	33	3	21	10
3 185 W 3.1 M	50	7	33	2
3B "	7	-1	2	16
4 200 W 2.0 M	32	4	51	8
4B "	16	1	23	<10
5 212 W 2.0 M	46	12	40	<2
5B "	20	1	11	<2
6 225 W 6.0 M	28	4	11	<2
6B "	19	5		<2
24 210 E 3.0 M	34	3	33	<2
24B "	37	2	18	<2
25B 220 E Bed R	5	12	2	6
26 230 E 7.5 M	31	4	28	4
26B "	21	2	14	4
27 200 E 5.0 M	24	7	2	<2
28B 190 E Bed R	280	35	1	<2



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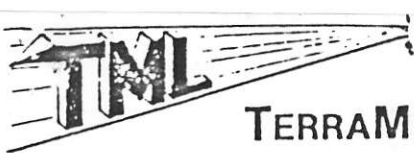
Sample No. <u>Rock</u>	Cu ppm	Co ppm	As ppm	Au ppb
14 - F1	4700	161		120
F2	3900	200	6	38
F3	1570	160		126
F4	1970	198		110
F5	4400	370		347
F6	930	340		32
F7	2040	133		62
12 ^{ns} F8	1820	142		6540
12 ^{ns} F9	630	33	26	1060
F10	1310	166	105	656
F11	370	24	2	34
F12	1540	171	40	130
F13	1580	113	9	300
F14	82	13	3	4
135 ^{ns} crown grant T 1	15200	310	44	1860 (1 on 1359 CG)
1370 CG T 2	6600	174	16	106 (Low lift)
1950N +450 E	780	76		(SW corner of 1)

← SAMPLE TAKEN FROM OUTCROP. 380

Note: Minus sign indicates less than figure given.

F FLOAT BOULDERS - ALL FROM QUAD 3.

T TRENCH SAMPLES - CROWN GRANTS



ANALYTICAL REPORT

Job # 83-037

Robertson Research

Date April 11, 1983

Client Project 5014 Quadra

FILE

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313.03

Sample No.	Au ppb	Ag ppm	As ppm	Cu ppm	Hg ppb	
T 1 A	422	11.6	19	17800	530	
S 1	76	5.0	1.8	5600	345	Boulders Trace Specimens on streambed L. Road
S 2	96	4.0	0.5	3200	585	
S 3	98	0.9	0.3	1050	450	
S 4	652	2.6	21	1170	90	
S 5	28	0.8	20	920	80	
S 6	900	3.0	3.2	3100	80	
S 7	10	0.1	1.8	320	40	
F 7 A	78	2.2	0.9	1910	265	
F 8 A	186	2.6	2.4	1220	425	
1140 N 480 E A-1	24	1.8	0.5	1480	320	
A-2	20	3.8	0.5	8000	160	
B-1	18	2.8	0.5	4300	265	
B-2	18	2.6	0.7	3600	25	
QV Granite T1-S-12	6	0.8		52		
L 16 N 425 E 50+NA	12	-0.1	1.9	10	30	old Drill core on "anomalous Grid" → OB drilling
B	4	-0.1	0.3	85	20	
C	26	1.2	5.0	40	45	
D	6	1.4	1.8	208	45	
L 24 N Drill Site	10	-0.1	0.8	6	30	