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SPECTROGRAPHIC RESULTS
FROM
Magnetic Anomalies 5S/4 + 5S/6
PORT DAVEY
LOTS 4, 7 + 8

58-217

Spectrographic Results for
Magnetic Anomalies
5S/4 + 5S/6, Port Davey
L.E.E. 22/4/58.

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MICROFILMED

22nd April,

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To: Mr. G.F. Hudspeth.

Spectrographic Results from
Magnetic Anomalies 5S/4 & 5S/6, Port Davey
(Lots 4, 7 & 8)

I. Anomaly 5S/4

1. The results of the soil sampling (Lot 4) carried out in the initial investigation by spectrographic analysis, indicated a marked geochemical high for zinc on traverse 00 (samples 114-123) with values of up to 8% zinc and which was directly associated with the magnetic high over the known fault in the area.

Samples 114, 116, 118 and 120 were tested at Queenstown for zinc (wet method) with the following results:

Sample No.	Queenstown (unsieved) ^a	Risdon ^b (-80 mesh fraction)
114	0.3% zinc	0% zinc
116	0.2% "	6% "
118	1.0% "	3% "
120	0.3% "	5% "

a = Analysis of unsieved soil sample.

b = Analysis of -80 mesh fraction of soil sample at Risdon.

On the basis of the agreement of these results and further zinc highs in the two traverses adjoining traverse 00, work on 5S/4 was continued.

2. An extension of the soil sampling involved the cutting of new traverse lines and the continuation of the old lines. These soil samples formed part of Lot 7. Where old lines were extended,

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adjoining lengths, which had already been sampled under Lot 4, were resampled, thus giving duplicate samples as follows:

Lot 4 No.	% Zinc (Risdon) ^b	Lot 7 No.	% Zinc (Risdon) ^b
114	8	594	< 0.0001
115	8	595	"
116	6	596	"
117	8	597	"
123	1	602	"
136	0.01	605	"

In addition a pit was dug on sample 115 location to bed rock, a depth of 6 feet. Samples 670-675 (Lot 7) were taken at 12" intervals from the surface, 675 being the rock exposed at 6 feet: no sulphide was visible on spectrographic analysis in the bottom of the pit. These six samples showed less than 0.0001% zinc.

The duplicate samples are the result of resampling and not the issue of the same sample under two numbers.

- 3. Samples 629-638 in Lot 7, which were taken north of traverse 00, showed high zinc values (0.5% to 5.0%).

II. Anomaly 58/6

- L. For reasons already outlined duplicate samples were taken as follows:

Lot 4 No.	% Zinc (Risdon) ^b	Lot 7 No.	% Zinc (Risdon) ^b
156	< 0.0001	510	< 0.0001
157	0.002	511	"
158	0.001	512	"
159	0.003	513	"

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Lot 4 No.	% Zinc (Risdon) ^b	Lot 7 No.	% Zinc (Risdon) ^b
160	0.0001	514	<0.0001
161	0.0001	515	"
162	0.001	516	"
163	0.0001	517	"

2. Samples 569-581 (Lot 7) showed high zinc values (0.02% to 8.0%).

III. In view of the disagreement of the results of Lots 4 and 7 and the peculiar distribution of the zinc highs in Lot 7, contamination was suspected. To check this:

1. Selected samples were sent to Rosebery and Queenstown for zinc analysis by the wet method. In order to obtain the results as quickly as possible the samples sieved to minus 80 mesh were sent to Rosebery and those which were not sieved (i.e. original samples) were analysed at Queenstown.

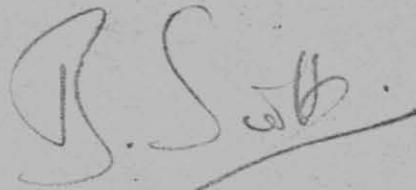
2. Risdon was asked to check the results of the duplicate and other samples, as outlined in I and II. These formed Lot 8.

These checks show that the zinc highs in Lots 4 and 7 were due to contamination in the spectrographic analyses carried out at Risdon. The contamination was introduced from the saw with which the carbon electrodes were cut. Part of this saw was coated in green paint, the paint giving a high zinc content.

These contaminated results of Lot 4 were accompanied by the coincidence of the positive check to four of these samples (114, 116, 118 and 120 as on page 1)^a on analysis for zinc carried out at Queenstown. Later analyses at Queenstown, Rosebery and Risdon demonstrate that these positive results must be incorrect.

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IV. This case emphasises the need for the careful preparation of samples for spectrographic analysis, and the strict checking of all other materials used in order to eliminate contamination.

A handwritten signature in cursive script, appearing to read "B. S. Webb". The signature is written in dark ink and is positioned above the typed name.

Geologist-in-Charge