

# RETURN

OF

# TRIGONOMETRICAL SURVEYS

LATELY MADE AT TAUPO AND THE WAIKATO.

*(Return to an Order of the House of Representatives, dated the 15th day of September, 1868.)*

That there be laid on the Table of this House—"A Return showing the Area, within calculated sides of triangles, of all Trigonometrical Surveys lately made under the supervision of the General Government at Taupo and the Waikato; with a Tracing or Diagram showing the measurements and angles of the triangulation, and Statement of the Cost of such Surveys."

*(Major Heaphy, V.C.)*

WELLINGTON.

—  
1868.



## RETURN OF TRIGONOMETRICAL SURVEYS.

### No. 1.

Copy of a Letter from Mr. HEALE to the Hon. J. C. RICHMOND.

Inspector of Surveys' Office,  
Auckland, 6th October, 1868.

SIR,—

In obedience to the directions contained in your letter of the 22nd ultimo, I have the honor to forward two diagrams, one showing the complete trigonometrical survey executed in Waikato by Mr. E. Fairburn, and the other containing those triangles of the survey commenced in the Bay of Plenty district by myself and assistants, of which calculations have been completed; together with a return showing the expenditure on the former work, and that incurred on the Bay of Plenty survey, of which the latter forms a portion.

The Waikato survey was not merely a triangulation, since, in addition to the ordinary work of fixing and truly determining the positions of stations, Mr. Fairburn had to "close" a great number of points in the previously executed topographical surveys, the lengths and bearings of the lines of which were in great confusion. By its means the topography of the district has to some extent been rectified, and the survey allowance which would otherwise have been made to the purchaser of the Rukuhia Swamp, amounting to £187, was saved.

I have already informed you that the Bay of Plenty survey was abruptly stopped, and that, owing to the late arrival of the necessary instruments from England, the final measurement of the angles of many otherwise completed stations had to be deferred to the present season.

The diagram sent includes, as directed in the order, only the calculated triangles, and does not represent much more than half the work done.

Some expenditure has taken place since 30th June, which not having been yet paid by the Government is not included in the return; nor does the work performed appear on the diagram, the calculations not being completed.

Since the diagrams now sent have no further value than to show what has been done, and as the time was very short, I have not thought it necessary to have them ornamentally got up, and I have to apologise for their rather rough appearance.

I have, &c.,

The Hon. the Native Minister, Wellington.

THEOPH. HEALE.

### Enclosure in No. 1.

RETURN showing the Area within calculated Sides of Triangles of TRIGONOMETRICAL SURVEY at TAUPO and the WAIKATO, and Statement of the Cost of such Surveys.

Name of District.	Area within Calculated Sides.			Cost.		
	A.	R.	P.	£	s.	d.
Taupo and Bay of Plenty	448,680	0	0	848	5	1
Waikato	225,755	0	0	329	18	6

Inspector of Surveys' Office,  
Auckland, 6th October, 1868.

THEOPH. HEALE.

