



New Zealand Steel Limited

Client Number 39

Private Bag 92121, Victoria Street West, Auckland, 1142
131 Mission Bush Rd , RD 1, Waiuku, 2681

Telephone 09 375-8111

www.nzsteel.co.nz

Authorised Representative

Mr David Granger
Laboratory Manager

Programme

Chemical Testing Laboratory

Accreditation Number 101

Initial Accreditation Date 18 July 1978

Conformance Standard

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

Laboratory Services Summary

2.01	Metals and Alloys
2.04	Ores and Minerals
2.41	Waters
2.81	Other Specified Inorganic Material

Key Technical Personnel

Ms Jannie Doevendans	2.41
Mr David Granger	2.01
Mr Ravi Rama	2.04, 2.81
Mr Paul Tupe	2.01

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2.01 Metals and Alloys

(a) Ferrous materials

(h) Other metals and alloys

Carbon and low alloy steels

The following elements by optical emission vacuum spectrometric analysis in accordance with ASTM E415-21, and JIS G 1253

Aluminium	Boron	Carbon	Chromium
Cobalt	Copper	Lead	Manganese
Molybdenum	Nitrogen	Niobium	Nickel
Phosphorus	Silicon	Sulphur	Tin
Titanium	Tungsten	Vanadium	Zirconium

White irons

The following elements by optical emission vacuum spectrometric analysis.

Aluminium	Boron	Carbon	Chromium
Copper	Lead	Magnesium	Manganese
Molybdenum	Niobium	Nickel	Phosphorus
Silicon	Sulphur	Tin	Titanium
Vanadium			

Stainless and weathering steel

The following elements by optical emission vacuum spectrometric analysis in accordance with ASTM E415-21 (modified)

Aluminium	Boron	Carbon	Chromium
Cobalt	Copper	Lead	Manganese
Molybdenum	Nitrogen	Niobium	Nickel
Phosphorus	Silicon	Sulphur	Tin
Titanium	Tungsten	Vanadium	Zirconium

2.04 Ores and Minerals

(a) Ferrous ores

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The following elements by X Ray Fluorescence spectrophotometric analysis based on In-house methods (TA 3210.003)

Aluminium	Calcium	Chromium	Copper
Iron	Manganese	Magnesium	Phosphorus
Potassium	Silicon	Sodium	Titanium
Vanadium	Zinc		

2.41 Waters

(b) Non-potable waters (ground waters)

The following tests are in accordance with APHA “Standard Methods for the Examination of Water and Wastewater” (23rd Edition)

The following elements by inductively coupled plasma optical emission spectroscopy (ICP-OES) in accordance with APHA 3120 A and 3120 B.

Boron	Cadmium	Chromium	Cobalt
Copper	Lead	Manganese	Molybdenum
Nickel	Phosphorus	Vanadium	Zinc

(d) Effluents and trade wastes

The following tests are in accordance with APHA Standard Methods for the Examination of Water and Wastewater (23rd Edition) except where otherwise indicated.

Dissolved oxygen	4500-O C
Oil and grease	In-house by non-dispersive Infra Red Spectroscopy
pH	4500-H+ B
Temperature (0-140 °C)	In-house by digital thermometer
Total suspended solids	2540 D

The following elements by inductively coupled plasma optical emission spectroscopy (ICP-OES) in accordance with APHA 3120 A and 3120 B.

Cadmium	Chromium (total)	Cobalt	Copper
Iron	Lead	Manganese	Nickel
Zinc			

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2.81 Other Specified Inorganic Material


(a) Steel making slags

The following elements by XRF spectrophotometric analysis in accordance with in-house methods

Aluminium	Calcium	Iron	Manganese
Magnesium	Phosphorus	Potassium	Sodium
Silicon	Titanium	Vanadium	

References:

- APHA American Public Health Association
- ASTM American Society for Testing and Materials
- JIS Japanese Industrial Standard

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