

CERTIFICATE OF ACCREDITATION



Hayes Metal Refineries Ltd

Client Number 471

PO Box 13139, Onehunga, Auckland, 1643
305 Neilson St, Onehunga, Auckland, 1061

Telephone 09 633-4000

www.hayesmetals.co.nz

Authorised Representative

Mr Christopher McKernan
Quality Manager

Programme

Chemical Testing Laboratory

Accreditation Number 44

Initial Accreditation Date 9 November 1976

Conformance Standard

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

Laboratory Services Summary

2.01 Metals and Alloys

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Hayes Metal Refineries Ltd
 Chemical Testing Laboratory
SCOPE OF ACCREDITATION

Accreditation Number 44

2.01 Metals and Alloys

- (a) **Iron and steel based alloys**
- (b) **Copper and copper based alloys**
- (c) **Aluminium and aluminium based alloys**
- (d) **Tin, Lead and their alloys**
- (e) **Magnesium and magnesium based alloys**
- (f) **Zinc and zinc based alloys**
- (h) **Nickel and nickel based alloys**

Carbon and low-alloy steel constituents and trace elements by optical emission spectroscopy (OES) in accordance with ASTM E415-21

Cast iron constituents and trace elements by optical emission spectroscopy (OES) in accordance with ASTM E1999-23

Constituent and trace elements by flame atomic absorption spectrometry (FAAS) in accordance with ASTM E663-83(1991) E01

Constituent and trace elements by optical emission spectrometry (OES) in accordance with AS 2883-2000


Copper in copper based alloys by electrogravimetric deposition in accordance with an in-house electrolytic method

Dezincification resistance testing of copper alloys in accordance with AS2345:2006

Stainless steel constituents and trace elements by optical emission spectroscopy (OES) in accordance with ASTM E1086-22

References:

- AS Australian Standard
- ASTM American Society for Testing and Materials

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