Title	**Explain data processing and process and analyse data for hydrographic surveying**		
Level	**5**	**Credits**	**10**

Purpose	People credited with this unit standard are able to explain data processing and process and analyse data for hydrographic surveying.

Classification	Surveying > Hydrography

Available grade	Achieved

Guidance Information

1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant industry and legislative requirements.

2 Legislation and references relevant to this unit standard include: Health and Safety at Work Act 2015; HYSPEC Contract Specification for Hydrographic Surveys Version 2.0, Land Information New Zealand (LINZ), available at https:www.linz.govt.nz; and any subsequent amendments.

3 Definition
Industry requirements may refer to but are not limited to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents, and guidelines.

Outcomes and performance criteria

Outcome 1

Explain data processing for hydrographic surveying.

Performance criteria

1.1 Data processing is explained in terms of the effect on least depth.

Range combined uncertainty and bathymetric estimator (CUBE), statistical cleaning, filters, shoal deep average surfaces on least depth.

Outcome 2

Process and analyse data for hydrographic surveying.

Range manual and automated techniques, appropriate software, identification of noise, outliers, and real features.

Performance criteria

2.1 Data is transferred, stored, and backed up.

2.2 Spatial data quality control measures are followed.

Range total propagated uncertainty, adjacent data between survey lines, overlapping data, systematic errors.

2.3 Spatial data deliverables are completed.

Range data interpolation, grids and triangulated irregular networks (TIN), contouring, volume computations, digital terrain models, grid surfaces and contouring, estimation, survey measurements, volume computations.

Planned review date	31 December 2026

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 March 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.