



### Topographic Legend

**ROADS**

- Road surface: sealed, metalled, gravel, dirt
- Vehicle track
- Foot track
- National State Highway

**WATER FEATURES**

- River, stream
- Ribbleshale

**RELIEF FEATURES**

- Index contour
- Intermediate contour
- Ty station benchmark
- Intermediate contour
- Contour interval
- Contour interval

**MISCELLANEOUS**

- Residential area
- Building
- Industrial area
- Mineral extraction
- Mine, underground opening

**CULTURAL FEATURES**

- Localities (over 200)
- Localities (under 200)
- Intersections
- Watercourse features and description lines
- Road and railway bridges
- Watercourse
- Ty station benchmark and name

The location of Enclosure 1 is shown by the black box. The extent of geological mapping is shown by the thick black polygon. Road boxes are the areas of GIS Source Data Sheets.

Relationship of Enclosure 1 (white box) with various geological maps: 1) Carter (1944); 2) Graham (2004); 3) Blair (2007); 4) Ferguson et al. (1991); 5) Blomquist (2004); 6) J. E. E. (1991); 7) King (1971); 8) King (1971); 9) King (1971); 10) King (1971).

Study area oblique view from southwest

Study area oblique view from northeast

Index to NZMS260 Series Topographic Map Sheets

Structural Datapoint Distribution Map

GPS Weypoint Distribution Map

Forest Cover Distribution Map

**CONTACT**

Accurate    Approximate    Concoated    Inferred

**FAULT (active)**

Active    Inactive

**FOLD**

Anticline    Syncline

**LINEAMENTS (frequently named trends)**

**OBSERVED OUTCROP**

**STRUCTURE**

Inclined bedding—showing strike and dip angle

Inclined bedding—showing strike and dip angle

Minor inclined fault—showing strike and dip

**Geological Symbols**

Accurate    Approximate    Concoated    Inferred

**CONTACT**

Active    Inactive

**FAULT (active)**

Active    Inactive

**FOLD**

Anticline    Syncline

**LINEAMENTS (frequently named trends)**

**OBSERVED OUTCROP**

**STRUCTURE**

Inclined bedding—showing strike and dip angle

Inclined bedding—showing strike and dip angle

Minor inclined fault—showing strike and dip

**BIBLIOGRAPHIC REFERENCE**

Blair, K.J. and Kemp, P.J., 2014. Hawke's Bay Inactive Basin (Eastern North Island, New Zealand): Stratigraphy, tectonics, chronology, geological maps and palaeogeography. Ministry of Business, Innovation and Employment, New Zealand, unpublished Pre-consultation Report (PREFR) 14/14.

**ACKNOWLEDGMENTS**

Major sources of information for these maps include geological mapping from Grigg (1960), King (1971), Blair et al. (1980), Brown (1981), Blair (1982), McArthur (1983), Franks (1991), Cannon and Kemp (1992), Kemp et al. (1993), Carter (1994), Blair (1995), Blair (2007), Blair (2007), Blair (2007) and Blair (2007), with additional new mapping as part of this study. GIS Source Data Sheets were obtained by the use of the 1:50 000 Active Road Database, some data from which are displayed on these map sheets. Hawke's Bay Regional Council (through David Hall and Stu Clary) are thanked for allowing access to, and the use of, their GIS geographic information system.

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**DISCLAIMER**

The University of Waikato and its staff and students accept no responsibility for any losses arising from the use of this map.

**WARNING**

This map shows an interpretation of the geology of central and western parts of Hawke's Bay based on both published and unpublished geological information from a variety of sources. While extensive field mapping has been carried out through the region, this map should not be used for building site assessment, land-use planning, engineering projects, quarrying operations or other work for which detailed site-specific investigations are required.

**Enclosure 3**  
Legends for 1:50 000 Geological Maps

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