

| <b>New Zealand datapack of biostratigraphy and regional stratigraphy -- current contents (Jan, 2021)</b>  |  |   |  |  |
|---|--|---|--|--|
| Developed in conjunction with the New Zealand GNS (their geological survey); with main age model updated using Raine et al. (2015) and Crudwell (GTS2020 Neogene) |  |   |  |  |
| GTS2020 age model applied to all sets (Jan, 2021)   |  |   |  |  |
| <b>New Zealand Geological Time Scale</b>  |  |   |  |  |
|   |  | NZ Epoch  |  | Modified from Raine et al. (2015) "Revised calibration of the New Zealand Geological Timescale: NZGT2015/1" (GNS Science Report 2012/39; published Feb 2015); originally from Geological Timescale (Cooper et al., 2004) with Neogene-Oligocene revisions by Martin Crudwell (Neogene table in GTS2020; with his direct date estimates). Ordov-Camb ages made consistent with same-name Australian stages<br><br><i>Colors are official ones of GNS for NZ stages and epochs. Using "mouse-over", click on stages to get official definitions.</i> |
|   |  | NZ Stage  |  |  |
|   |  | NZ Substage   |  |  |
|   |  | NZ abbrev.  |  |  |
|   |  | NZ boundary marker event                                |  |  |
| <b>New Zealand Biostratigraphy</b>  |  |   |  |  |
| <b>NZ Microfossils (Cenozoic)</b>   |  |   |  |  |
| Planktonic Foraminifers (New Zealand)   |  |   | New Zealand Geological Timescale (Cooper et al., 2004)<br>Data taken from Cooper (ed.) 2004: Figure 13.4 Pliocene and Pleistocene Planktonic Foram Range, Figure 12.5 Late Miocene Planktonic Foram Range (5-12 Ma), Figure 12.4 Middle Miocene Planktonic Foram Range (10-18 Ma), Figure 12.3 Early Miocene Planktonic Foram Range (16-24 Ma), Figure 11.2 Paleocene Planktonic Foram Range (24-65 Ma). |  |
|   |  | NZ Foram Zone   |  |  |
|   |  | NZ Foram Subzone  |  |  |
|   |  | NZ Planktonic Foraminifer datums                        |  |  |
|   |  | NZ Planktonic Foram Ranges                              |  |  |
| Benthic Foraminifers (New Zealand)  |  |   | Data taken from Cooper (ed.) 2004: Figure 13.4 Selected Pliocene and Pleistocene Benthic Foram Range, Figure 12.5 Late Miocene Benthic Foram Range (4-12 Ma), Figure 12.4 Middle Miocene Benthic Foram Range (10-18 Ma), Figure 12.3 Early Miocene Benthic Foram Range (16-24 Ma), Figure 11.3 Paleocene Benthic Foram Range (24-65 Ma).   |  |
|   |  | NZ Benthic Foram Events                                 |  |  |
|   |  | NZ Benthic Foram Ranges                                 |  |  |
| Bolboformids (New Zealand)  |  |   | Data taken from Cooper (ed.) 2004: Figure 12.5 Late Miocene Bolboformid Benthic Foram Range (4-12 Ma)  |  |
|   |  | Bolboformid Ranges (Miocene)                            |  |  |
|   |  | Bolboforma subzone                                      |  |  |
| Nannofossils (New Zealand)  |  |   | Data taken from Cooper (ed.) 2004: Figure 11.4 Paleogene Nannofossils (New Zealand)  |  |
|   |  | NZ Nanno Zone   |  |  |
|   |  | NZ Nanno Events   |  |  |
|   |  | NZ Nanno Ranges   |  |  |
| Radiolarians (New Zealand)  |  |   | Data taken from Cooper (ed.) 2004: Figure 11.7 Paleogene Radiolarian zones and species ranges  |  |
|   |  | NZ Rad Zone   |  |  |
|   |  | NZ Radiolarian datums (Paleogene)                       |  |  |
|   |  | NZ Radiolarian ranges (Paleogene)                       |  |  |
| <b>NZ Microfossils FAD &amp; LAD</b>  |  |   |  |  |
| Planktonic Foraminifer datums (New Zealand)   |  |   |  |  |
| Benthic Foraminifer datums (New Zealand)  |  |   |  |  |
| Bolboformid Benthic Foram datums  |  |   |  |  |
| Nannofossil datums (New Zealand)  |  |   |  |  |
| <b>New Zealand Palynology</b>   |  |   |  |  |
| Pollen and Spores (New Zealand)   |  |   | New Zealand Geological Timescale (Cooper et al., 2004)<br><b>Using "mouse-over", click on datums to access GNS pollen-spore image database.</b>  |  |
|   |  | Climate Stages (Middle-Late Pleistocene)                | Suggate 1990; Pillans 1991   |  |
|   |  | Pollen zones -- High-resolution Late Pleistocene        | Mildenhall 1994, 1995  |  |
|   |  | Pollen zones -- High-resolution Middle-Late Pleistocene | Mildenhall 1994, 1995  |  |
|   |  | Spore-Pollen zones (NZ)                                 | Mildenhall and Pocknall, 1986, 1989; Nelson et al., 1988   |  |
|   |  | Spore-Pollen subzones or alternate zones (NZ)           | Mildenhall and Pocknall, 1986, 1989; Nelson et al., 1988   |  |
|   |  | NZ Spore and Pollen datums                              |  |  |
|   |  | NZ pollen and spore ranges                              |  |  |
|   |  | Paleogene Miospore key events                           |  |  |
| Other Miospores or Plant Macrofossils (New Zealand)   |  |   |  |  |
|   |  | Cretaceous Miospores -- Other Taxa                      |  |  |
|   |  | Triassic Floral Zones (NZ)                              |  |  |
|   |  | Triassic Plant macrofossil ranges (NZ)                  |  |  |
|   |  | Triassic Plant macrofossil datums (NZ)                  |  |  |
| Dinoflagellates (New Zealand; Jurassic-Paleogene)   |  |   |  |  |
|   |  | Dinocyst zone (NZ)                                      |  |  |
|   |  | Dinocyst subzone (NZ)                                   |  |  |
|   |  | Dinoflagellate datums (NZ)                              |  |  |

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|  |  |  |  |   |
|  |  |  |  | Dinoflagellate species range (NZ)   |
| <b>NZ Macrofossils and Other Fossil Groups</b>   |  |  |  |   |
|  |  |  |  | New Zealand Geological Timescale (Cooper et al., 2004)  |
|  |  |  |  | Molluscs (Cenozoic, New Zealand)  |
|  |  |  |  | NZ Mollusc datums (Cenozoic)  |
|  |  |  |  | NZ Mollusc ranges (Cenozoic)  |
|  |  |  |  | Bivalves (Mesozoic; New Zealand)  |
|  |  |  |  | NZ Bivalve Zone   |
|  |  |  |  | NZ Bivalve datums (Cret-Permian)  |
|  |  |  |  | NZ Bivalve ranges (Cret-Permian)  |
|  |  |  |  | Belemnites (New Zealand)  |
|  |  |  |  | NZ Belemnite Zone   |
|  |  |  |  | NZ Belemnite datums (Cret-Jur)  |
|  |  |  |  | NZ Belemnite ranges (Cret-Jur)  |
|  |  |  |  | Ammonites (New Zealand)   |
|  |  |  |  | NZ Ammonite Zone  |
|  |  |  |  | NZ Ammonite datums (Jur-Tri)  |
|  |  |  |  | NZ Ammonite ranges (Jur-Tri)  |
|  |  |  |  | Brachiopods (New Zealand)   |
|  |  |  |  | NZ Brachiopod datums (Jur-Permian)  |
|  |  |  |  | NZ Brachiopod ranges (Jur-Permian)  |
|  |  |  |  | Conodonts (New Zealand)   |
|  |  |  |  | NZ Conodont datums (Permian)  |
|  |  |  |  | NZ Conodont ranges (Permian)  |
|  |  |  |  | Graptolites (New Zealand)   |
|  |  |  |  | NZ Graptolite Zone  |
|  |  |  |  | NZ Graptolite datums (Ordovician)   |
|  |  |  |  | NZ Graptolite ranges (Ordovician)   |
|  |  |  |  | Other Mesozoic and Ordov groups (New Zealand)   |
|  |  |  |  | Other NZ Fossil group datums (Tri-Perm; Ordov.)   |
|  |  |  |  | NZ Other Fossil group ranges (Tri-Perm; Ordov.)   |
| <b>New Zealand History</b>   |  |  |  |   |
|  |  |  |  | King, P. R., Naish, T. R., Browne, G. H., Field, B. D. Edbrooke, S. W. (compilers) 1999. Cretaceous to Recent sedimentary patterns in New Zealand. Institute of Geological and Nuclear Sciences folio series 1, version 1999.1.                       |
|  |  |  |  | Tectonic Evolution of New Zealand   |
|  |  |  |  | NZ Plate Boundary Regime  |
|  |  |  |  | NZ Plate Tectonic Characteristics   |
|  |  |  |  | NZ Plate Tectonic Event   |
|  |  |  |  | New Zealand-wide Cretaceous-Cenozoic megasequence (1st and 2nd)   |
|  |  |  |  | King, P. R., Naish, T. R., Browne, G. H., Field, B. D. Edbrooke, S. W. (compilers) 1999. Cretaceous to Recent sedimentary patterns in New Zealand. Institute of Geological and Nuclear Sciences folio series 1, version 1999.1.                       |
|  |  |  |  | New Zealand-wide Megasequences  |
|  |  |  |  | Threshold events  |
| <b>New Zealand Reconstructions</b>   |  |  |  |   |
|  |  |  |  | Images from Poster by King, P. R., Naish, T. R., Browne, G. H., Field, B. D. Edbrooke, S. W. (compilers) 1999. Cretaceous to Recent sedimentary patterns in New Zealand. Institute of Geological and Nuclear Sciences folio series 1, version 1999.1. |
| <b>Taranaki Basin stratigraphy overview</b>  |  |  |  |   |
|  |  |  |  | Taranaki general stratigraphy   |
|  |  |  |  | Taranaki wells  |
|  |  |  |  | Taranaki hydrocarbons   |
|  |  |  |  | Taranaki general lithostrat   |
|  |  |  |  | Taranaki Generalized Transect lowRes  |
|  |  |  |  | NOTE: Only this one is a legacy version with GTS2008 age model for LateCret-Cenozoic; not migrated to Raine et al.'15 and GTS2020 ages for NZ Stages  |
|  |  |  |  | King, P. R., Naish, T. R., Browne, G. H., Field, B. D. Edbrooke, S. W. (compilers) 1999. Cretaceous to Recent sedimentary patterns in New Zealand. Institute of Geological and Nuclear Sciences folio series 1, version 1999.1.                       |
|  |  |  |  | Taranaki Basin (Western Side)   |
|  |  |  |  | Far south   |
|  |  |  |  | Intermediate south  |
|  |  |  |  | Middle of south-north   |
|  |  |  |  | Intermediate north  |
|  |  |  |  | Far north   |
|  |  |  |  | The southern extreme of W. Taranaki basin. In this column, left to right is south to north  |
|  |  |  |  | The south-middle portion of W. Taranaki basin. In this column, left to right is south to north  |
|  |  |  |  | The middle portion of W. Taranaki basin. In this column, left to right is south to north  |
|  |  |  |  | The north-middle portion of W. Taranaki basin. In this column, left to right is south to north  |
|  |  |  |  | The northern extreme of W. Taranaki basin. In this column, left to right is south to north  |
| <b>Taranaki Facies Maps (use 2cm/myr)</b>  |  |  |  |   |
|  |  |  |  | 35 intervals with detailed facies maps  |
| <b>Lord Howe Rise and Queensland</b>   |  |  |  |   |
|  |  |  |  | Lord Howe Rise -- DSDP suite  |
|  |  |  |  | DSDP 207 208 hydrocarbons   |
|  |  |  |  | DSDP 207 208  |

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|   |  |   |                           |  |  |
|   |  | DSDP 206                                    |                           |  |  |
|   |  | DSDP 588 590 591 hydrocarbons               |                           |  |  |
|   |  | DSDP 588 590 591                            |                           |  |  |
|   |  | Challenger Plateau (DSDP 593)               |                           |  |  |
|   |  | West Coast of New Caledonia                 |                           |  |  |
|   |  | Maryborough Basin/Gympie Block (Queensland) |                           |  |  |
|   |  |   |                           |  |  |
| <b>New Zealand Transects</b>  |  |   |                           |  | Main source = King, P. R., Naish, T. R., Browne, G. H., Field, B. D. Edbrooke, S. W. (compilers) 1999. Cretaceous to Recent sedimentary patterns in New Zealand. Institute of Geological and Nuclear Sciences folio series 1, version 1999.1. NOTE: This version has been very enhanced by Andrew Boyes and others at GNS, plus most transect/well formations are hot-linked to the GNS lexicon. |
| <b>NZ-wide Megasequences</b>  |  |   |                           |  |  |
| <b>Northland - Waikato - Bay of Plenty</b>  |  |   | <b>(NorthLand submap)</b> |  |  |
| <b>Northland (NW-SE, Transect 1)</b>  |  |   |                           |  |  |
|   |  | Mt Roskill                                  |                           |  | (reference well)   |
|   |  | 1A (southern part)                          |                           |  |  |
|   |  | Kamo  |                           |  | (reference well)   |
|   |  | 1B (northern part)                          |                           |  |  |
|   |  | North Cape                                  |                           |  | (reference well)   |
| <b>Waikato northernmost (W-E; NE part of Transect 3)</b>  |  |   |                           |  |  |
|   |  | Pokeno                                      |                           |  |  |
|   |  | 3B (NE part)                                |                           |  |  |
|   |  | Maramarua                                   |                           |  |  |
| <b>Bay of Plenty (central North Island; NW-SE; Transect 39)</b>                                   |  |   |                           |  |  |
|   |  | Maramarua on Tr39                           |                           |  | (reference well)   |
|   |  | 39A (NW part)                               |                           |  |  |
|   |  | Katikati                                    |                           |  | (reference well)   |
|   |  | 39B (SE part)                               |                           |  |  |
|   |  | Ohiwa                                       |                           |  | (reference well)   |
| <b>Waikato East (S-N; central North Island; Transect 4)</b>                                       |  |   |                           |  |  |
|   |  | Ararimu-1 on Tr4                            |                           |  | Mirror of Taranaki (end of NZ Tr14)  |
|   |  | 4A (south part)                             |                           |  |  |
|   |  | Te Rappa-1                                  |                           |  | (reference well)   |
|   |  | 4B (central part)                           |                           |  |  |
|   |  | Pokeno on Tr4                               |                           |  | Mirror of 3 crossing; but different name to avoid problems   |
|   |  | 4C (north part)                             |                           |  |  |
|   |  | Mt Roskill on Tr4                           |                           |  | Mirror of Transect 1 beginning; but different name to avoid problems   |
| <b>Waikato West (SW-N; central North Island; Transect 2)</b>                                      |  |   |                           |  |  |
|   |  | Te Ranga-1 on Tr2                           |                           |  | "Te Ranga-1 on Tr2" is same as Te Ranga-1 (end of Tr9), but renamed to avoid map-pack problems   |
|   |  | 2A (southwest part)                         |                           |  |  |
|   |  | East Kawhia                                 |                           |  |  |
|   |  | 2B (central part)                           |                           |  |  |
|   |  | Te Rappa-1 on Tr2                           |                           |  | Mirror of 4 crossing; but different name to avoid problems   |
|   |  | 2C (north part)                             |                           |  |  |
|   |  | Te Hoe                                      |                           |  |  |
| <b>Taranaki</b>   |  |   | <b>(Taranaki submap)</b>  |  |  |
| <b>Taranaki Far-North (SW-NE; Transect 3)</b>   |  |   |                           |  |  |
|   |  | Tua Tua-1                                   |                           |  |  |
|   |  | 3A (SW part)                                |                           |  |  |
|   |  | Pokeno                                      |                           |  | Continues into Waikato segment Tr3B  |
| <b>North Taranaki (W-E) (Transect 9)</b>  |  |   |                           |  |  |
|   |  | Ariki-1                                     |                           |  |  |
|   |  | 9A (west part)                              |                           |  |  |
|   |  | Tangaroa-1                                  |                           |  |  |
|   |  | 9B (central part)                           |                           |  |  |
|   |  | Mangaa-1                                    |                           |  |  |

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|  |  |  |  |                                       |  |
|  | 9C (east part)   |  |  |                                       |  |
|  | Te Ranga-1   |  |  |                                       |  |
|  | <b>Waikato Southwest (NW portion of Transect 5)</b>                      |  |  |                                       |  |
|  | Okoki-1 on Tr5   |  |  |                                       |  |
|  | 5A (northwest extension)   |  |  |                                       |  |
|  | Awakino Heads  |  |  |                                       |  |
|  | 5B (north part)  |  |  |                                       |  |
|  | Ararimu-1 on Tr5   |  |  | <i>As information point only</i>      |  |
|  | <b>Central Taranaki (W-E) (Transect 14)</b>                              |  |  |                                       |  |
|  | Tane-1   |  |  |                                       |  |
|  | 14A (west part)  |  |  |                                       |  |
|  | Taimana-1  |  |  |                                       |  |
|  | 14B (central part)   |  |  |                                       |  |
|  | Okoki-1  |  |  |                                       |  |
|  | 14C (east part)  |  |  |                                       |  |
|  | Ararimu-1  |  |  |                                       |  |
|  | <b>South Taranaki (W-E) (Transect 12)</b>                                |  |  |                                       |  |
|  | Kiwa-1   |  |  |                                       |  |
|  | 12A (west part)  |  |  |                                       |  |
|  | Maui-2   |  |  |                                       |  |
|  | 12B (west-central part)  |  |  |                                       |  |
|  | Kapuni-13  |  |  |                                       |  |
|  | 12C (east-central part)  |  |  |                                       |  |
|  | Puniwhakau-1   |  |  |                                       |  |
|  | 12D (east part)  |  |  |                                       |  |
|  | Ararimu-1 on Tr12  |  |  |                                       |  |
|  | <b>North coast of Nelson (NW tip of South Island; W-E) (Transect 15)</b> |  |  |                                       |  |
|  | Cook-1 on Tr15   |  |  |                                       |  |
|  | Nelson Tr15 (W-E)  |  |  |                                       |  |
|  | Surville-1 on Tr15   |  |  |                                       |  |
|  | <b>Nelson neck (NW tip of South Island; W-E) (Transect 16)</b>           |  |  |                                       |  |
|  | Kongahu-1 on Tr16  |  |  |                                       |  |
|  | Nelson 16A (west part)   |  |  |                                       |  |
|  | Tapawera-1 on Tr16   |  |  | Mirror of south end of Taranaki Tr13  |  |
|  | Nelson 16B (east part)   |  |  |                                       |  |
|  | Nelson composite   |  |  |                                       |  |
|  | <b>West Taranaki (S-N) (Transect 10)</b>                                 |  |  |                                       |  |
|  | Kongahu-1 on Tr10  |  |  |                                       |  |
|  | 10A (southernmost part)  |  |  |                                       |  |
|  | Cook-1   |  |  |                                       |  |
|  | 10B (south part)   |  |  |                                       |  |
|  | Kiwa-1 on Tr10   |  |  | Mirror of beginning of Transect 12    |  |
|  | 10C (central part)   |  |  |                                       |  |
|  | Tane-1 on Tr10   |  |  | Mirror of beginning of Transect 14    |  |
|  | 10D (north part)   |  |  |                                       |  |
|  | Ariki-1 on Tr10  |  |  | Mirror of beginning of W-E Transect 9 |  |
|  | 10E (northern W-E segment = same as 9A)                                  |  |  | Mirror of E-W Transect 9A             |  |
|  | Tangaroa-1 on Tr10   |  |  | Mirror of Transect 9                  |  |
|  | <b>Central Taranaki (S-N) (Transect 13)</b>                              |  |  |                                       |  |
|  | Tapawera-1   |  |  |                                       |  |
|  | 13A (southernmost or Nelson segment)                                     |  |  |                                       |  |
|  | Surville-1   |  |  |                                       |  |
|  | 13B (south part)   |  |  |                                       |  |
|  | Maui-2 on Tr13   |  |  | Mirror of Transect 12                 |  |
|  | 13C (central part)   |  |  |                                       |  |
|  | Taimana-1 on Tr13  |  |  | Mirror of Transect 14                 |  |
|  | 13D (north part)   |  |  |                                       |  |
|  | Tangaroa-1 on Tr13   |  |  | Mirror of Transect 9                  |  |
|  | 13E (northernmost part)  |  |  |                                       |  |
|  | Tua Tua-1 on Tr13  |  |  |                                       |  |
|  | <b>East Taranaki (S-N) (Transect 11)</b>                                 |  |  |                                       |  |
|  | Tahi-1   |  |  |                                       |  |
|  | 11A (south part)   |  |  |                                       |  |
|  | Toru-1   |  |  |                                       |  |
|  | 11B (New Plymouth part)  |  |  |                                       |  |
|  | Kapuni-13 on Tr11  |  |  |                                       |  |

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|  |  |  |                          |  |
|  |  | 11C (central part)                           |                          |  |
|  |  | Okoki-1 on Tr11                              |                          |  |
|  |  | 11D (north part)                             |                          |  |
|  |  | Mangaa-1 on Tr11                             |                          |  |
|  |  | 11E (northernmost part)                      |                          |  |
|  |  | Tua Tua-1 on Tr11                            |                          |  |
|  |  |  |                          |  |
|  |  |  |                          |  |
| <b>Wanganui</b>  |  |  | <b>(Wanganui submap)</b> |  |
| Central Wanganui (N-S) (central and south portion of Transect 5)   |  |  |                          |  |
|  |  | Ararimu-1 on Tr5                             |                          | Taranaki Mirror (East-end of Y = NZ Tr12)                |
|  |  | 5C (central part)                            |                          |  |
|  |  | Parakino-1 on Tr5                            |                          | Mirror of Transect 8                                     |
|  |  | 5D (south part)                              |                          |  |
|  |  | Santoft-1A                                   |                          |  |
| North Wanganui (W-E) (Transect 8)  |  |  |                          |  |
|  |  | Toru-1 on Tr8                                |                          | Mirror of Taranaki W = NZ11 = TB NS-3 (middle; hole 11e) |
|  |  | 8A (west part)                               |                          |  |
|  |  | Pukeroa, Turakina Valley                     |                          |  |
|  |  | 8B (east part)                               |                          |  |
|  |  | Kawhatau Valley                              |                          |  |
| Central Wanganui (W-E) (Transect 7)  |  |  |                          |  |
|  |  | Tahi-1 on Tr7                                |                          | Mirror of Taranaki W (south end of 11a = TB NS-3)        |
|  |  | Tr 7   |                          | NOTE: Transect 5 begins near east end of Tr 7            |
|  |  | Young-1 on Tr7                               |                          | Mirror of Transect 6                                     |
| Cook Strait - South Wanganui (SW-NE) (Transect 6)  |  |  |                          |  |
|  |  | Nelson Composite on Tr6                      |                          |  |
|  |  | 6A (W-E on SE tip of South Island)           |                          |  |
|  |  | Otaihanga                                    |                          |  |
|  |  | 6B (S-N on Wanganui coast)                   |                          |  |
|  |  | Young-1                                      |                          | Also East-end of Transect 7                              |
| <b>Eastlands - N Canterbury</b>  |  |  | <b>(Eastland submap)</b> |  |
| East Coast Spine (S-N) (Transect 32)   |  |  |                          |  |
|  |  | Kaikoura Peninsula                           |                          |  |
|  |  | 32A (southernmost end; Kaikoura)             |                          |  |
|  |  | Deadman Stream                               |                          |  |
|  |  | 32B (Marlborough)                            |                          |  |
|  |  | Long Point (NE corner of South Island)       |                          |  |
|  |  | 32C (Cook Strait)                            |                          |  |
|  |  | Te Kau Kau Point (SE corner of North Island) |                          |  |
|  |  | 32D (Cape Palliser)                          |                          |  |
|  |  | Flat Point                                   |                          |  |
|  |  | 32E (coast east of Masterton)                |                          |  |
|  |  | Te Mai Stream                                |                          |  |
|  |  | 32F (southernmost Hawkes Bay)                |                          |  |
|  |  | Angora Stream and Wainui River               |                          |  |
|  |  | 32G (south Hawkes Bay)                       |                          |  |
|  |  | Mangarara Stream                             |                          |  |
|  |  | 32H (north Hawkes Bay)                       |                          |  |
|  |  | Opoutama-1                                   |                          |  |
| NE Coast (Kaikoura) of South Island (W-E) (Transect 33)  |  |  |                          |  |
|  |  | Wallow Stream                                |                          |  |
|  |  | Tr 33  |                          |  |
|  |  | Kaikoura Peninsula on Tr33                   |                          | [Mirror of well on transect 32]                          |
| NE tip (Marlborough) of South Island (NW-SE) (Transect 34)   |  |  |                          |  |
|  |  | Peak River                                   |                          |  |
|  |  | Tr 34  |                          |  |
|  |  | Deadman Stream on Tr34                       |                          | [Mirror of well on transect 32]                          |
| SE tip (Masterton) of North Island (W-E) (Transect 35)   |  |  |                          |  |
|  |  | Carrington                                   |                          |  |
|  |  | Tr35   |                          |  |
|  |  | Flat Point on Tr35                           |                          | [Mirror of well on transect 32]                          |

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| <b>Central East Coast of North Island (W-E) (Transect 36)</b>  |  |                             |                                 |
| Wanganui Basin (and projected Akitio River facies succession)  |  |                             |                                 |
| 36A (west side)  |  |                             |                                 |
| Angora Stream and Wainui River on TR36   |  |                             | [Mirror of well on transect 32] |
| 36B (east side)  |  |                             |                                 |
| Cape Turnagain   |  |                             |                                 |
| <b>North Hawkes Bay (W-E) (Transect 37)</b>  |  |                             |                                 |
| Ruatahuna (and projected Mangaopoika River)  |  |                             |                                 |
| 37A (west side)  |  |                             |                                 |
| Opoutama-1 on Tr37   |  |                             | [Mirror of well on transect 32] |
| 37B (east side)  |  |                             |                                 |
| Taiporutu Stream   |  |                             |                                 |
| <b>Gisborne (W-E on NE tip of Eastland) (Transect 38)</b>  |  |                             |                                 |
| Oponae Stream  |  |                             |                                 |
| 38A (west side; W-E)   |  |                             |                                 |
| Waitahaia River  |  |                             |                                 |
| 38B (east side; NW-SE)   |  |                             |                                 |
| Marau Point  |  |                             |                                 |
| <b>Canterbury</b>  |  | <b>(Canterbury submap)</b>  |                                 |
| <b>Canterbury Onshore Spine (S-N) (Transect 29)</b>  |  |                             |                                 |
| Endeavour-1  |  |                             | Crossing of Transect 30 and 28  |
| 29A (southernmost part)  |  |                             |                                 |
| Oamaru Composite   |  |                             |                                 |
| 29B (south part)   |  |                             |                                 |
| Kakahu River   |  |                             |                                 |
| 29C (south-central part)   |  |                             |                                 |
| Hinds River N.   |  |                             |                                 |
| 29D (central part)   |  |                             |                                 |
| Curiosity Shop on Tr29   |  |                             | Mirror of 31 crossing           |
| 29E (north-central part)   |  |                             |                                 |
| Feary's Farm   |  |                             |                                 |
| 29F (north part)   |  |                             |                                 |
| Waipara River on Tr29  |  |                             | Mirror of 30 crossing           |
| 29G (northernmost part)  |  |                             |                                 |
| Gore Bay   |  |                             |                                 |
| 29H (northern end)   |  |                             |                                 |
| Kaikoura Peninsula on Tr29   |  |                             | Mirror of Transect 32           |
| <b>Canterbury Offshore (S-N) (Transect 30)</b>   |  |                             |                                 |
| Galleon-1  |  |                             |                                 |
| 30A (south part)   |  |                             |                                 |
| Endeavor-1 on Tr30   |  |                             | Mirror of 29 crossing           |
| 30B (central part)   |  |                             |                                 |
| Resolution-1 on Tr31   |  |                             | Mirror of 31 crossing           |
| 30C (north part)   |  |                             |                                 |
| Waipara River  |  |                             |                                 |
| <b>Central Canterbury (W-E) (Transect 31)</b>  |  |                             |                                 |
| Harper River   |  |                             |                                 |
| 31A (west part)  |  |                             |                                 |
| Curiosity Shop   |  |                             |                                 |
| 31B (east part)  |  |                             |                                 |
| Resolution-1   |  |                             | Crossing of Transect 30         |
| <b>Great South</b>   |  | <b>(Great South submap)</b> |                                 |
| <b>Great South -- northeast (S-N) (Transect 28)</b>  |  |                             |                                 |
| Takapu-1A  |  |                             |                                 |
| 28A (south end)  |  |                             |                                 |
| Shag Point composite   |  |                             |                                 |
| 28B (north end)  |  |                             |                                 |
| Oamaru Composite on Tr28   |  |                             | Mirror of Transect 29           |
| <b>Great South -- central (S-N) (Transect 27)</b>  |  |                             |                                 |
| Tara-1 on Tr27   |  |                             |                                 |
| Tr27 (one panel)   |  |                             |                                 |
| Takapu-1A on Tr27  |  |                             |                                 |
| <b>Great South -- southwest offshore (SE-NW) (Transect 25)</b>   |  |                             |                                 |
| Tara-1 on Tr25   |  |                             | Mirror of 26                    |
| Tr25   |  |                             |                                 |

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|--|---|-----------------------------------|-----------------------|
|  | Orepuki on Tr25                                     |                                   |                       |
| <b>Great South -- south offshore (S-N) (Transect 26)</b>   |   |                                   |                       |
|  | Hoiho-1C  |                                   |                       |
|  | 26A (south side)                                    |                                   |                       |
|  | Pukaki-1  |                                   |                       |
|  | 26B (north side)                                    |                                   |                       |
|  | Tara-1  |                                   |                       |
| <b>Fjord Land (Southland)</b>  |   | <b>(Fjordland submap)</b>         |                       |
| <b>West Fjordlands of SW South Island (S-N) (Transect 24)</b>  |   |                                   |                       |
|  | Chalky Island                                       |                                   |                       |
|  | South Island 24A (SW tip)                           |                                   |                       |
|  | Big River   |                                   |                       |
|  | 24B (central, and connect to 23)                    |                                   |                       |
|  | Forest Burn on Tr24                                 |                                   | Mirror of Transect 23 |
|  | 24C (north part)                                    |                                   |                       |
|  | Franklin Mts  |                                   |                       |
| <b>Central Fjordlands (S-N) (Transect 23)</b>  |   |                                   |                       |
|  | Parara-1  |                                   |                       |
|  | 23A (Solander Basin and Waitutu sub-basin)          |                                   |                       |
|  | Wairaurahiri  |                                   |                       |
|  | Lower Track Burn                                    |                                   |                       |
|  | 23B (Waiau Basin), and connecting to Transect 22    |                                   |                       |
|  | Blackmount on Tr23                                  |                                   | Mirror of 22          |
|  | Monowai   |                                   |                       |
|  | 23C (Monowai sub-basin)                             |                                   |                       |
|  | Forest Burn   |                                   |                       |
|  | 23D (Te Anau Basin), and connecting to Transect 22  |                                   |                       |
|  | Upukerora   |                                   | Mirror of 22 crossing |
| <b>East Fjordlands (S-N) (Transect 22)</b>   |   |                                   |                       |
|  | Orepuki   |                                   |                       |
|  | 22A (southern Waiahu Basin; south end of 22)        |                                   |                       |
|  | Ohai  |                                   |                       |
|  | 22B (northern Waiahu Basin; south part of 22)       |                                   |                       |
|  | Blackmount  |                                   |                       |
|  | 22C (Burwood sub-basin; middle of 22)               |                                   |                       |
|  | Dale Creek  |                                   |                       |
|  | Upukerora   |                                   |                       |
|  | 22D (Te Anau Basin and extension; north part of 22) |                                   |                       |
|  | Madagascar Beach                                    |                                   |                       |
| <b>West coast of South Island</b>  |   | <b>(West South Island submap)</b> |                       |
| <b>southwest West coast (SW-NE) (Transect 21)</b>  |   |                                   |                       |
|  | Madagascar Beach on Tr21                            |                                   |                       |
|  | Tr 21   |                                   |                       |
|  | Jackson Bay on Tr21                                 |                                   |                       |
| <b>central West coast (SW-NE) (Transect 20)</b>  |   |                                   |                       |
|  | Jackson Bay   |                                   |                       |
|  | 20A (south part)                                    |                                   |                       |
|  | Tititira Head                                       |                                   |                       |
|  | 20B (north part)                                    |                                   |                       |
|  | Harhari-1   |                                   |                       |
| <b>north West coast (S-N) (Transect 19)</b>  |   |                                   |                       |
|  | Harhari-1 on Tr19                                   |                                   |                       |
|  | 19A (south part)                                    |                                   |                       |
|  | Arahura-1   |                                   |                       |
|  | 19B (south-central part)                            |                                   |                       |
|  | Stillwater Creek                                    |                                   |                       |
|  | 19C/18A (middle part of 19; or west-half of 18)     |                                   |                       |
|  | Haku-1  |                                   |                       |
|  | 19D (north-central part)                            |                                   |                       |
|  | C. Foulwind   |                                   |                       |
|  | 19E (north part of 19)                              |                                   |                       |
|  | Kongahu-1   |                                   |                       |
| <b>northeast West coast (W-E) (Transect 18)</b>  |   |                                   |                       |
|  | Haku-1 on Tr18                                      |                                   |                       |
|  | 18B (east side)                                     |                                   |                       |
|  | U. Grey River                                       |                                   |                       |

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|  |  |  |                      |  |
|  | far northeast West coast (W-E) (Transect 17)           |  |                      |  |
|  | C. Foulwind on Tr17                                    |  |                      |  |
|  | Tr17   |  |                      |  |
|  | Mangles Valley   |  |                      |  |
|  |  |  |                      |  |
|  | <b>Chatham and Pitt Islands (east of NZ)</b>           |  | <b>(Main NZ map)</b> |  |
|  | Chatham Islands (special) (NW-SE)                      |  |                      |  |
|  | Northwest Chatham Islands                              |  |                      |  |
|  | Chatham Islands transect (31 - partial)                |  |                      |  |
|  | South Chatham Island                                   |  |                      |  |
|  | North and Central Pitt Island transect (special) (N-S) |  |                      |  |
|  | Pitt Island reference hole                             |  |                      |  |
|  | Pitt Island transect (31 - partial)                    |  |                      |  |