



Roads and Traffic Authority of New South Wales

Custom AGS Format Data Dictionary

AGS 3.1 RTA 1.1

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Revision 6

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Datgel Project Manager: Phil Wade (phil@datgel.com.au)

RTA Project Manager: David Warren-Gash (David.WARREN-GASH@rta.nsw.gov.au)

Comments and feedback are welcome and should be addressed to either Phil Wade or David Warren-Gash.

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Amendments

Revision	Date	Designation	Amendment
0	04/2006	-	For internal and external review
1	05/2006	-	For internal and external review
2	07/2006	-	For internal review
3	08/2006	-	For internal review
4	10/2006	-	For internal review
5	11/2006	AGS 3.1 RTA 1.0	First public release
6	04/2007	AGS 3.1 RTA 1.1	See Appendix B for a summary. Amendments are marked with Rev6, New6, or Del6.

Datgel Pty Ltd
Suite 8, Level 1, The Hub
89-97 Jones Street
Ultimo NSW 2007
Australia
Tel: +61 2 9281 6118
Fax: +61 2 9281 6137
Email: info@datgel.com.au
Web: www.datgel.com.au

Roads and Traffic Authority of New South Wales

Custom AGS Format Data Dictionary

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Roads and Traffic Authority of New South Wales

Custom AGS Format Data Dictionary

1 INTRODUCTION

The Roads and Traffic Authority of NSW (RTA) engaged Datgel Pty Ltd (Datgel) to develop an AGS 3.1 based data dictionary and contract specification to enable the transfer of consistent RTA and Australian Standard geotechnical and geoenvironmental data between the RTA and its contractors.

Arup proposed an AGS data dictionary and specification in June 2005 (Ref a). Datgel's letter of 14 March 2006 (Ref b) discusses potential improvements to Arup's proposed data dictionary. This document reproduces some aspects of Arup's report (Ref a).

Revision 0 and 1 of this document was commented on by a number of geotechnical and data management professionals from Australia, New Zealand, USA and UK. We reviewed all comments and have incorporated many in revisions 2 and 3.

Revision 5 was the first public release and designated AGS 3.1 RTA 1.0. Revision 6 incorporates changes requested from internal RTA users and changes to DRAFT AGS 3.2 (Ref o) within the scope of in situ and soil lab testing.

2 PHILOSOPHY USED TO DEVELOP THE DATA DICTIONARY

The data dictionary is based on the AGS 3.1 Format data transfer standard (Ref c) and selected items from the DRAFT AGS 3.2 document (Ref k and o). The AGS Format was developed for British Standard practice, which for the most part is compatible with Australian Standard practice. We also reviewed AGS Format custom data dictionaries used in Hong Kong, Singapore, and a draft proposed standard for NZ. In addition we reviewed AGS compatible databases developed by gINT Software, Leeke Associates and Datgel.

The data dictionary was developed using the following guidelines:

- a) Where reasonable it must use existing AGS 3.1 and 3.2 groups and headings, comply with AGS rules and be back compatible with AGS 3.1 and 3.2. We note that group ?STCI breaks AGS 3.1 Rule 6a.
- b) Any obsolete headings and groups yet to be deleted from AGS 3.1 will be removed.
- c) The meaning of existing headings and groups will not be significantly changed. Instead, new headings will be added as required.
- d) Groups and headings for information that do not apply to Australian practice will be deleted.
- e) It must transfer and comply with all AS 1726, AS 1289, RTA logging and testing standards. Where conflicts occur, RTA standards shall prevail. Where standards do not exist for tests published methods will be used as a basis.
- f) AS and RTA standard rock and aggregate tests will not be specifically included in this version of the data dictionary, other than in the existing ROCK group. The DRAFT AGS 3.2 includes incomplete expanded support for rock testing, and this issue should be revisited upon the release of AGS 3.2. RPLT, the point load test group, is included in this document.
- g) Where practical component descriptions shall be used in preference to composite descriptions. GEOL_DESC is retained only for legacy data and all new material descriptions must be reported on GORA, GORB, GOSA and GOSB.
- h) The AGS standard specifies that all fields shall be of "Text" type. This allows character data within fields that are numeric or date-time in nature. This data dictionary will assign appropriate data types and formats.
- i) All lab test groups shall be children of the CLSS group.
- j) All lab and field tests shall have:
 - STAT (status) heading defining the approval/quality control status of the data.
 - DATE headings defining the date of testing. Some field test groups also have a TIME headings.
 - TTBY (tested by), PRBY (processed by), PRDT (processed date), CKBY (checked by), and CKDT (checked date).
 - METH headings defining the test standard used.
 - LAB heading defining the name of the testing laboratory or organisation.
 - CRED heading defining the accrediting body for the laboratory
- k) Headings shall not be overloaded with data, for example separate headings shall be defined for minimum, conjunction and maximum. Where required sign headings are provided for data such as "<".
- l) Confidence of depth intervals shall be defined by CONF headings. This can be used on printed logs to define line types.
- m) CPT groups shall be compatible with both AGS 3.1 and GEF (Geotechnical Exchange Format, Ref j), such that the dictionary transfers data specified by both standards, but using

the AGS rules. Data corrections and additional data transfer requirements defined in Lunne et al (Ref n) are used.

- n) Particle density shall be stored only in the new ?LPDN group. A Boolean heading will define if the value is tested or assumed. All old headings in AGS 3.1 for particle density shall be deleted.
- o) Natural moisture content shall only be defined in the new ?LMOC. All old headings in AGS 3.1 for natural moisture content shall be deleted.
- p) The AGS 3.1 CLSS group shall be split into new lab groups for each test to allow the storage of all required metadata (also in AGS 3.2).

3 STANDARDS EXCLUDED

The data dictionary does not allow for some earthworks tests that involve both lab and field tests. These standards are listed below:

- AS 1289.5.4.1 Soil compaction and density tests - Compaction control test - Dry density ratio, moisture variation and moisture ratio
- AS 1289.5.4.2 Soil compaction and density tests - Compaction control test - Assignment of maximum dry density ratio and optimum moisture content values
- AS 1289.5.6.1 Soil compaction and density tests - Compaction control test - Density index method for a cohesionless material
- RTA t166 Determination of Relative Compaction

Many Australian Standard and RTA standard rock and aggregate test results may be transferred within the ROCK group, but the data dictionary was not customised to deal with these data types. One exception is ?RPLT, the point load test group.

4 ADDITIONAL RESOURCES

The following resources will be provided to assist RTA consultants/contractors to submit and receive electronic data in AGS 3.1 RTA 1.1 format data.

Available from the RTA internet site

(<http://www.rta.nsw.gov.au/doingbusinesswithus/specifications/geotechnicalinformation.html>):

- AGS 3.1 RTA 1.1 Data Dictionary (this document)
- Blank AGS 3.1 RTA 1.1 file (only has groups, headings and units).

- Example AGS 3.1 RTA 1.1 file with data.
- Example image files, and seismic section file.

Available from the Datgel internet site (<http://www.datgel.com.au/agsrtaformat.aspx>):

- Excel file containing a full list and DICT list of groups and headings in AGS 3.1 RTA 1.1.
- Example gINT project, data template, library (with pick lists, component description tables and example reports), correspondence files for AGS 3.1 RTA 1.1 import and export and basic user's manual.
- White paper RTA AGS Format – discussing the Format and ideas on how to implement it with gINT.

Datgel Pty Ltd



Philip Wade

Principal Data Management Consultant

5 REFERENCES

- Arup (2005), Final Draft Report - Roads and Traffic Authority of New South Wales, AGS Format data, Method for the consistent transfer of digital geotechnical data, 84578-00.
- Datgel (2006), Letter "Comments on Arup Report 'AGS Format Data' June 2005", 14 March 2006.
- Association of Geotechnical & Geoenvironmental Specialists (2005), Electronic Transfer of Geotechnical and Geoenvironmental Data, Edition 3.1 including addendum May 2005. (<http://www.ags.org.uk/>)
- Standards Australia (1993), AS 1726-1993, Geotechnical site investigations.
- Standards Australia (1995-2005), AS 1289 all parts, Method of testing soils for engineering purposes.

- f) Roads and Traffic Authority of New South Wales (Current in 2006), <http://www.rta.nsw.gov.au/doingbusinesswithus/specifications/> Test Methods volume 1, 2 and 3.
- g) Econ Geotech Pte Ltd (2000?), Singapore LTA AGS Template.xls
- h) Association of Geotechnical & Geoenvironment Specialists Hong Kong (2003), AGS Format 3rd Edition, Appendix A and B.
- i) Caronna, S and Wade, P.M. (2005), "Problems with Using the AGS Format as a Working Database Structure", AGS Format Conference, Birmingham, UK, 19 October 2005.
- j) Civieltechnisch Centrum Uitvoering Research en Regelgeving, Geotechnical Exchange Format for CPT-Data, April 2004 (<http://www.geonet.nl/>)
- k) Association of Geotechnical & Geoenvironmental Specialists (03/2006), Electronic Transfer of Geotechnical and Geoenvironmental Data, Edition DRAFT 3.2.
- l) Highways Agency UK (2003), Specification and Notes for Guidance for the Production of Records in Electronic Format, Version 1.
- m) Highways Agency UK (2003), Highways Agency Recommended Procedure for Checking AGS Data, Version 1.
- n) Lund, T., Robertson, P.K., Powell, J.J.M., (1997) "Cone Penetration Testing in Geotechnical Practice", Spon Press.
- o) Association of Geotechnical & Geoenvironmental Specialists (12/2006), Electronic Transfer of Geotechnical and Geoenvironmental Data, Edition DRAFT 3.2.

APPENDIX A

Specification Text and Data Dictionary

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A1. SPECIFICATION FOR DIGITAL DATA

A1.1. General

Data Generator shall be defined as the organisation creating the data, e.g. an organisation logging boreholes or a laboratory.

Data Receiver shall be defined as the organisation receiving the AGS file. Under some circumstances this will be an engineering consultant who receives data from a sub-contracted specialist geotechnical consultant. Otherwise this will be the RTA.

RTA is the client, the Roads and Traffic Authority of NSW or their representative.

Unless otherwise required in the Contract, all Data Generators are to provide field, monitoring and laboratory data in digital form, as well as in paper form.

The definitive copy of the field and laboratory data shall be the paper copy.

All data shall be checked for errors prior to acceptance by the RTA. These checks shall include:

- Data format and integrity – must pass the gINT AGS Checker
- Data completeness Groups
- Data completeness Headings
- Data validation

A1.2. Format

The format of the digital files shall comply with the Association of Geotechnical and Geoenvironmental Specialists (AGS) publication 'Electronic transfer of geotechnical and geoenvironmental data' Edition 3.1. User-defined modifications to the data dictionary and pick lists are defined in this document. This document shall take precedence over the AGS 3.1 document.

The following shall be referenced in the associated file (FILE_FSET) headings.

- Factual reports (including any reports issued by sub contractors)

- Digital photographs with file naming as described in the ?IMAG group section of the document.
- Seismic refraction section DXF release 12 files
- Other relevant files can be referenced in the appropriate associated file fields at the discretion of the data generator.

Associated files may have long file names and must have a three character extension.

Any new groups or headings shall only be created with the approval of the RTA.

A1.3. Security, Media, and Labelling

CDR media will normally be used, however for large reports, which would exceed 650MB, recordable DVD may be used. Disks shall have a guaranteed minimum 5 years archival life. All disks shall be securely labelled and clearly marked:

The Disk Label and Jewel Case (front cover) label:

- The title 'AGS 3.1 RTA 1.1 Format Data'
- The project identification (PROJ_ID)
- The project location (PROJ_LOC)
- The date of issue to the RTA (PROJ_DATE)
- The name and logo of the Data Generators (PROJ_CONT & PROJ_ENG)
- The name and logo of the RTA (PROJ_CLNT)
- The unique issue sequence number (PROJ_ISNO)
- Status of data within submission (PROJ_STAT)

Jewel Case rear cover label spine:

- Reference number of disc
- Date

If more than one disk or other agreed transmission medium is required, then each shall be clearly labelled to indicate the order in which the Data Receiver should read the data. The split of the data into separate files shall be decided by the Data Generator. The unique sequence number shall run sequentially from the start of the contract.

Where more than one disk is required for a particular issue of digital data, this fact shall be clearly identified on the labels in that issue.

Where data is transferred via electronic system (e.g. email, shared drive, web etc) the information that would have been included on the media label shall be provided in associated electronic documentation.

Until the completion of the maintenance period, the Data Generator shall keep an index detailing:

- The title 'AGS 3.1 RTA 1.1 Format Data'
- The title 'Media Index Record'
- The project identification (PROJ_ID)
- The unique issue sequence number (PROJ_ISNO)
- The date of issue to the Data Receiver (PROJ_DATE)
- The name of the Data Generator issuing the transmission media
- The name of the Data Receiver to whom the transmission media was issued
- A general description of the data transferred and/or a file listing for associated files

For each AGS Format data set, including all associated files, the index will detail:

- The file name including the extension
- The date the file was created
- The time the file was created
- The file size in bytes
- A general description of the data contained in each file and/or a file listing for associated files
- Record of data checking

The Data Generator shall retain one copy of the index sheet and shall issue to the Data Receiver a copy of the completed index sheet with the disk(s), or other agreed transmission medium.

All data files shall be checked for viruses before issue using a recent proprietary anti-virus program.

A1.4. Preliminary Data

The Data Generator shall issue digital copies of all preliminary data whenever required by the Data Receiver, as defined in the Tender Document.

The preliminary data may be subject to update as necessary in the light of laboratory testing and the further examination of samples and cores. When available, laboratory data shall be included.

The preliminary data set shall include all current data, including previous preliminary data sets.

In addition to the labelling requirements given in A1.3, the disks shall be labelled 'PRELIM' and a unique sequence number given to the disk for each issue of digital data to the Data Receiver.

A list of data items not included in the digital data but included in the paper copy shall be provided.

All preliminary data in digital form shall be able to be presented in the same form as it is to be used for the Factual Report. The digital data must be produced from the same source/program as that used to produce the factual report.

A1.5. Draft Digital Data

The draft digital data shall be submitted immediately proceeding or upon submission of the draft factual report.

The draft digital data provided by the Data Generator with the draft factual report is required to be a complete copy, in digital form, of the draft factual report and shall be a total replacement of any previous preliminary data.

In addition to the labelling requirements given in A1.3 of this specification, the disk(s), or other agreed transmission media, submitted with the Factual Report shall be labelled 'DRAFT'.

A1.6. Final Data and Factual Report

The final digital data shall be submitted immediately proceeding or upon submission of the final factual report.

In addition to the labelling requirements given in A1.3 of this specification, the disk(s), or other agreed transmission media, submitted with the Factual Report shall be labelled 'FINAL'.

The digital data provided by the Data Generator with the Factual Report is required to be complete and a total replacement of any previous preliminary / draft data.

In addition to the paper copies of the Factual Report, the Data Generator shall provide a Report with a digital copy of those field, monitoring and laboratory data and associated files specified in the Contract to be in digital form. This report shall consist of a disk(s), or other agreed transmission medium, containing the digital data and associated files, paper copies of any data or drawings not included in digital form. The file format for associated files shall be agreed in advance between the Data Generator and the Data Receiver. The paper copies shall be firmly bound within stiff covers.

A1.7. Accreditation

Prior to the start of work on the Contract, the Data Generator shall obtain accreditation for electronic data submission from the RTA. The Data Generator need only obtain accreditation for each version of this data transfer standard.

To obtain accreditation the Data Generator shall submit to the RTA a digital data mock up example, including any data produced by sub-contractors, in the required format for the approval of the RTA. If problems are found in the mock up files, the accreditor will provide feedback and the Data Generator will be required to correct their practices and re-submit the files.

A1.8. Submitting Data

Updated disk(s), or other agreed media, shall be provided at the periods defined in this specification. The Data Generator shall make two identical copies of each disk, whether preliminary, draft or final. The first copy shall be retained by the Data Generator until the expiry of the contract maintenance period. The second copy will be issued to the Data Receiver.

A1.9. Units of Measurement

The preferred units of measurement shall be those given in this document, unless other units of measurements for digital data are given in the Contract. The units of measurement must be given in the AGS Format files, and must be the same as those used in the paper version of the report.

A1.10. Specific AGS Data Headings

Hole ID surface coordinates and elevation shall be defined in HOLE_LOCX, HOLE_LOCY and HOLE_LOCZ to the project coordinate system (?PROJ_LOCS and ?PROJ_LUTZ) and elevation datum (PROJ_LEDMD). HOLE_LOCM and ?HOLE_LCMZ shall be appropriately defined when ever

coordinates and elevation are defined. If required HOLE_NATE, HOLE_NATN, HOLE_GL, ?PROJ_NEDM, ?PROJ_NCOS and ?PROJ_NUTZ may be used. For example the local/project coordinate system and UTM zone is ISG66 Zone 56/2, and the Data Generator is also required to provide MGA94 Zone 56 coordinates in the National headings.

The Data Generator shall use ?GEOL_ORG1, ?GEOL_ORGC and ?GEOL_ORG2 to transmit the interpreted geologic origin of the strata encountered. Optionally, or if directed by the RTA, the Data Generator shall transmit the geologic map code in ?GEOL_BGS. If the Data Generator's report defines a project specific geotechnical model then the geology code headings GEOL_GEO1 and GEOL_GEO2 shall be used, and abbreviations and descriptions provided in ABBR.

GEOL_DESC shall only be used for legacy data and all new material descriptions must be reported on GORA, GORB, GOSA and GOSB.

When full penetration of 450 mm has been achieved, the N value shall be reported in the ISPT_NVAL heading as a whole number. If full penetration is achieved under the weight of the hammer and/or rods then ISPT_NVAL heading shall be set to 0. When full penetration has not been achieved due to refusal, this heading shall be left blank.

The ISPT_REP heading shall be used to present incomplete tests, i.e. 25, 50/160mm HB.

A2. DATA DICTIONARY

A2.1. General

This section should be read in conjunction with the AGS 3.1 or AGS 3.2 Documents (reference a and o), which provide extensive guidance for use.

Where a change has been made relative to AGS 3.1 the item has been flagged using the following system:

- **New** New Heading or Group in Edition AGS 3.1 RTA 1.0.
- **Rev** Revised in Edition AGS 3.1 RTA 1.0.
- **Del** Heading or Group deleted that was part of Edition AGS 3.1.

Revision 5 of this document was the first version publicly released and was titled AGS 3.1 RTA 1.0. Changes made in revision 6 have been annotated “New6”, “Rev6” or “Del6”, and the document is titled AGS 3.1 RTA 1.1.

A2.2. List of Groups

Group Name	Contents	Parent Group	Relationship	Revision
ABBR	Abbreviation Definitions	-	-	
?BKFL	Backfill Details	HOLE	1 to many	Rev
CBRG	CBR Test - General	CLSS	1 to 1	Rev
?CBRP	CBR Penetration	CBRT	1 to many	New
CBRT	CBR Test	CBRG	1 to many	Rev
CDIA	Casing Diameter by Depth	HOLE	1 to many	Rev
CHIS	Chiselling Details	HOLE		Del
CHLK	Chalk Tests	SAMP		Del
CLSS	Lab Specimens	SAMP	1 to many	Rev
CMPG	Compaction Tests General	CLSS	1 to 1	Rev6
CMPT	Compaction Tests	CMPG	1 to many	Rev
CNMT	Contaminant and Chemical Testing	CLSS	1 to 1	Rev

Group Name	Contents	Parent Group	Relationship	Revision
CODE	Chemical Testing Codes	- ¹	-	
?COND	Consolidation Deformation	CONS	1 to many	New
CONG	Consolidation Test - General	CLSS	1 to 1	Rev
CONS	Consolidation Test	CONG	1 to many	Rev
CORE	Rotary Core Information	HOLE	1 to many	Rev
DETL	Stratum Detail Descriptions	HOLE	1 to many	Rev
DICT	User Defined Groups and Headings	-	-	
DISC	Discontinuity Data	HOLE	1 to many	Rev6
DPRB	Dynamic Probe Test	DPRG	1 to many	Rev
DPRG	Dynamic Probe Test - General	HOLE	1 to 1	Rev
?DPRI	Dynamic Probe Test - Interpretation	DPRG	1 to many	New
DREM	Depth Related Remarks	HOLE	1 to many	
FILE	Associated Files	- ²		
FLSH	Rotary Core Flush Details	HOLE	1 to many	
FRAC	Fracture Spacing	HOLE	1 to many	
FRST	Frost Susceptibility	SAMP		Del
GEOL	Stratum Layers	HOLE	1 to many	Rev6
?GORA	Rock Stratum Descriptions	GEOL	1 to 1	Rev6
?GORB	Composite Rock Stratum Descriptions	GORA	1 to 1	Rev6
?GOSA	Soil Stratum Descriptions	GEOL	1 to 1	Rev6
?GOSB	Composite Soil Stratum Descriptions	GOSA	1 to 1	Rev6
GRAD	Particle Size Distribution Analysis Data	?GRAG	1 to many	Del6
?GRAG	Particle Size Distribution Analysis - General	CLSS	1 to 1	Rev6
?GRAT	Particle Size Distribution Analysis Data	?GRAG	1 to many	New6
HDIA	Hole Diameter by Depth	HOLE	1 to many	
?HDPH	Depth Related Drilling Information	HOLE	1 to many	Rev
HOLE	Hole Information or Location Equivalent Details	-	-	Rev6
HPGI	Horizontal Profile Gauge Installation Details	HOLE		Del
HPGO	Horizontal Profile Gauge Observations	HPGI		Del
?ICBP	In Situ CBR Penetration	ICBR	1 to many	New

Group Name	Contents	Parent Group	Relationship	Revision
ICBR	In Situ CBR Test	HOLE	1 to many	Rev6
?ICCT	In Situ Contaminant and Chemical Testing	?MONP	1 to many	Rev
?ICIV	Clegg Impact Value	HOLE	1 to many	Rev6
IDEN	In Situ Density Test	HOLE	1 to many	Rev6
?IDER	In Situ Density Readings	IDEN	1 to many	New
?IFID	On Site Volatile Headspace Testing Using Flame Ionisation Detector	HOLE	1 to many	Rev6
INST	Single Point Instrument Installation Details	HOLE		Del
IOBS	Single Point Instrument Readings	INST		Del
?IINF	Infiltration	HOLE	1 to many	Rev6
?IMAG	Image	HOLE	1 to many	New
?IPID	On Site Volatile Headspace Testing by Photo Ionisation Detector	HOLE	1 to many	Rev6
IPRM	In Situ Permeability Test	HOLE	1 to many	Rev6
?IPRS	In Situ Permeability Stage	IPRM	1 to many	New
IRDX	In Situ Redox Test	HOLE	1 to many	Rev6
IRES	In Situ Resistivity Test	HOLE	1 to many	Rev6
ISPT	Standard Penetration Test Results	HOLE	1 to many	Rev
IVAN	In Situ Vane and Hand Penetrometer Test	HOLE	1 to many	Rev6
?LCPF	Compaction Factor	CLSS	1 to 1	New
?LCPR	Capillary Rise	CLSS	1 to 1	New
?LCSI	Core Shrinkage Index	CLSS	1 to 1	New
?LCSR	Core Shrinkage Readings	?LCSI	1 to many	New
?LDEN	Density Test	CLSS	1 to 1	New
?LDIS	Percent Dispersion	CLSS	1 to 1	New
?LDYN	Laboratory Dynamic Testing	CLSS	1 to 1	New6
?LEMC	Emerson Class	CLSS	1 to 1	New
?LHIF	Hilf Density Ratio and Moisture Variation	CLSS	1 to 1	New
?LLIN	Linear Shrinkage Tests	CLSS	1 to 1	New
?LLPL	Liquid and Plastic Limit Test	CLSS	1 to 1	New
?LMOC	Moisture Content Test	CLSS	1 to 1	Rev6

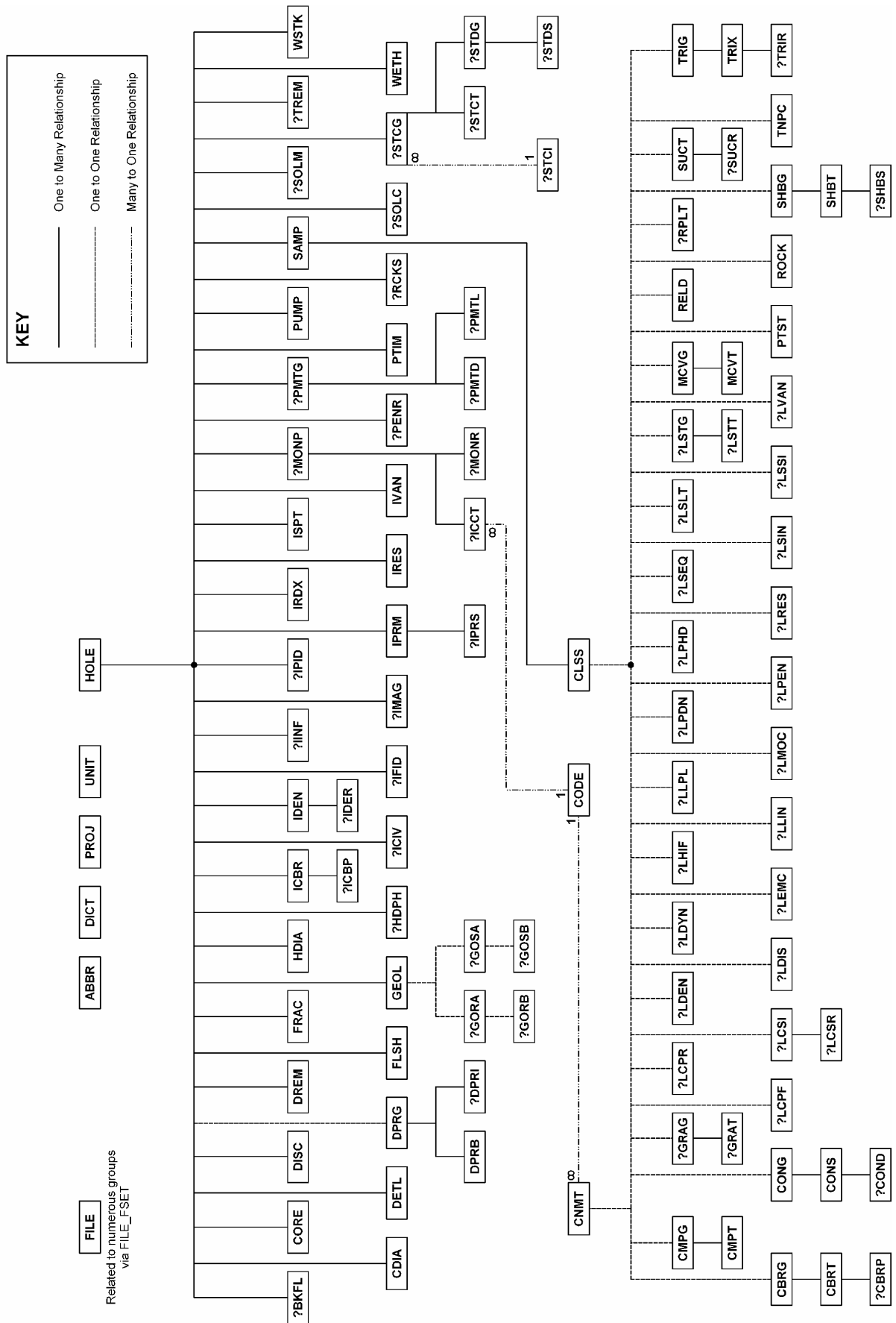
Group Name	Contents	Parent Group	Relationship	Revision
?LPDN	Particle Density Test	CLSS	1 to 1	New
?LPEN	Laboratory Hand Penetrometer Test	CLSS	1 to 1	New
?LPHD	Pinhole Dispersion Classification	CLSS	1 to 1	New
?LRES	Laboratory Resistivity	CLSS	1 to 1	New
?LSEQ	Sand Equivalent	CLSS	1 to 1	New
?LSIN	Loaded Shrinkage Index	CLSS	1 to 1	New
?LSLT	Shrinkage Limit Test	CLSS	1 to 1	Rev
?LSSI	Shrink-Swell Index	CLSS	1 to 1	New
?LSTG	Line Stabilisation Tests – General	CLSS	1 to 1	New6
?LSTT	Line Stabilisation Tests	?LSTG	1 to many	New6
?LVAN	Laboratory Vane Test	CLSS	1 to 1	New
MCVG	MCV Test - General	CLSS	1 to 1	Rev
MCVT	MCV Test	MCVG	1 to many	
?MONP	Monitor Point	HOLE	1 to many	Rev
?MONR	Monitor Point Reading	?MONP	1 to many	Rev
POBS	Piezometer Readings	PREF		Del
PREF	Piezometer Installation Details	HOLE		Del
PROB	Profiling Instrument Readings	PROF		Del
PROF	Profiling Instrument Installation Details	HOLE		Del
?PENR	Penetration Resistance	HOLE	1 to many	New
?PMTD	Pressuremeter Test Data	PMTG	1 to many	New6
?PMTG	Pressuremeter Test Results, General	HOLE	1 to many	New6
?PMTL	Pressuremeter Test Results, Individual Loops	PMTG	1 to many	New6
PROJ	Project Information	-	-	Rev
PRTD	Pressuremeter Test Data	PRTG	1 to many	Del6
PRTG	Pressuremeter Test Results, General	HOLE	1 to many	Del6
PRTL	Pressuremeter Test Results, Individual Loops	PRTG	1 to many	Del6
PTIM	Hole Progress by Time	HOLE	1 to many	Rev
PTST	Laboratory Permeability Tests	CLSS	1 to 1	Rev
PUMP	Pumping Test	HOLE	1 to many	
?RCKS	Rock Strength	HOLE	1 to many	New

Group Name	Contents	Parent Group	Relationship	Revision
RELD	Relative Density Test	CLSS	1 to 1	Rev
ROCK	Rock Testing	CLSS	1 to 1	Rev
?RPLT	Point Load Test	CLSS	1 to 1	Rev
SAMP	Sample Reference Information	HOLE	1 to many	Rev
SHBG	Shear Box Testing - General	CLSS	1 to 1	Rev
?SHBS	Shear Box Readings	SHBT	1 to many	New
SHBT	Shear Box Testing	SHBG	1 to many	Rev
?SOLC	Soil Consistency	HOLE	1 to many	New
?SOLM	Soil Moisture Condition	HOLE	1 to many	New
?STCG	Cone Penetration Test General	HOLE	1 to many	Rev6
?STCI	Cone Penetration Test Cone Information	- ³	-	New
STCN	Cone Penetration Test Data	HOLE		Del
?STCT	Cone Penetration Test	?STCG	1 to many	New
?STDG	Dissipation Test General	?STCG	1 to many	New
?STDS	Dissipation Test	?STDG	1 to many	New
?SUCR	Suction Readings	SUCT	1 to many	New
SUCT	Suction Test	CLSS	1 to 1	Rev
TNPC	Ten Per Cent Fines	CLSS	1 to 1	Rev
?TREM	Time Related Remarks	HOLE	1 to many	Rev
TRIG	Triaxial Test - General	CLSS	1 to 1	Rev
?TRIR	Triaxial Readings	TRIX	1 to many	New
TRIX	Triaxial Test	TRIG	1 to many	Rev
UNIT	Definition of <UNITS> and CNMT_UNIT	-	-	
WETH	Weathering Grades	HOLE	1 to many	Rev
WSTK	Water Strike Details	HOLE	1 to many	

Note:

1. CODE has a many to one relationship with CNMT and ICCT via CNMT_TYPE.
2. FILE is related to numerous groups via the FILE_FSET headings.
3. ?STCI has a many to one relationship with ?STCG via ?STCG_REF.

AGS 3.1 RTA 1.1 RELATIONSHIP DIAGRAM



A2.3. Groups and Headings

A2.3.1 PROJ - Project Information

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	PROJ_ID		Project identifier	6421/A	Text			
	PROJ_NAME		Project title	Acme Gas Works	Text			
	PROJ_LOC		Location of site	1 George Street	Text			
	PROJ_CLNT		Client name	Acme Enterprises	Text			
	PROJ_CONT		Contractors name	Acme Drilling Ltd	Text			
	PROJ_ENG		Project engineer	Acme Consulting	Text			
	?PROJ_OFFC		Contractor's or engineer's office name	Parramatta	Text			<i>New</i>
	PROJ_MEMO		General project comments		Text			
	PROJ_DATE	dd/mm/yyyy	Date of production of data	31/07/1999	Date	dd/mm/yyyy		
	PROJ_AGS		AGS edition number	3.1 RTA 1.1	Text			<i>Rev</i>
	?PROJ_LEDM		Local elevation datum	AHD	Text		PROJ_EDM	<i>New</i>
	?PROJ_LCOS		Local coordinate system	MGA94	Text		PROJ_COS	<i>New</i>
	?PROJ_LUTZ		Local UTM zone	56	Text			<i>New</i>
	?PROJ_NEDM		National elevation datum	AHD	Text		PROJ_EDM	<i>New</i>
	?PROJ_NCOS		National coordinate system	MGA94	Text		PROJ_COS	<i>New</i>
	?PROJ_NUTZ		National UTM zone	56	Text			<i>New</i>
	?PROJ_CID		Monitoring contractor identifier	KS123	Text			
	?PROJ_PROD		Data file producer	Acme Drilling Ltd	Text			
	?PROJ_RECV		Data file recipient	Acme Consulting	Text			
	?PROJ_ISNO		Issue sequence number	2	Text			
	?PROJ_STAT		Status of data within submission	1	Text		STAT	
	?PROJ_NED		List of documents not supplied electronically	Parramatta 1892 historic map; foundation design calculations	Text			<i>New</i>
	FILE_FSET		Associated file reference	FS1	Text		FILE	

A2.3.2 ABBR - Abbreviation Definitions

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	ABBR_HDNG		Field heading in group	HOLE_TYPE	Text			
*	ABBR_CODE		Abbreviation used	TP	Text			
	ABBR_DESC		Description of abbreviation	Test Pit	Text			Rev

A2.3.3 ?BKFL - Backfill Details

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6422/A	Text			
*	?BKFL_TOP	m	Depth to top of section	1.4	Double	0.00		
	?BKFL_BASE	m	Depth to base of section	11.4	Double	0.00		
	?BKFL_LEG		Backfill legend code	BENTBKFL	Text		BKFL_LEG	Rev
	?BKFL_DATE	dd/mm/yyyy	Date of backfill	01/04/2004	Date	dd/mm/yyyy		
	?BKFL_REM		Backfill remarks	Bentonite Pellets	Text			Rev
	?FILE_FSET		Associated file reference	FS20	Text		FILE	

A2.3.4 CBRG - CBR Test – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6491/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		Rev
*	SAMP_REF		Sample reference number	22	Text			
*	SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		Rev
*	SPEC_REF		Specimen reference number	2	Text			
	CBRG_COND		Sample condition	Undisturbed, Remoulded etc	Text			
	CBRG_METH		Method of remoulding	AS 1289.5.2.1-2003	Text		METH	

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CBRG_REM		Notes on CBR test	Natural, soaked, duration of soaking, 10kN/m2 surcharge	Text			
	CBRG_NMC	%	Natural moisture content	20	Double			Del
	?CBRG_IMC	%	Initial moisture content	20	Double	0.0		
	CBRG_200	%	Mass percent retained on 19mm or 20mm sieve	10	Double	0.0		Rev
	?CBRG_475	%	Mass percent retained on 4.75mm sieve	10	Double	0.0		New
	CBRG_SWEL	mm	Amount of total swell recorded	3.0	Double			Del
	?CBRG_MCD	%	Design moisture content	10	Double	0.0		New
	?CBRG_OMC	%	Optimum moisture content for standard compactive effort	10	Double	0.0		New
	?CBRG_OMCR	%	Optimum moisture content for reduced compactive effort	10	Double	0.0		New
	?CBRG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?CBRG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS16	Text		FILE	

A2.3.5 ?CBRP - CBR Penetration

New

Parent Group: CBRT (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6491/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	22	Text			New
*	?SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		New
*	?SPEC_REF		Specimen reference	2	Text			New
*	?CBRT_TESN		Test number	1	Text			New
*	?CBRP_END		Sample end	TOP or BOT	Text		CBRP_END	New
*	?CBRP_PEN	mm	Penetration	2.00	Double	0.00		New
	?CBRP_LOAD	kN	Force/Load	1.845	Double	0.000		New

A2.3.6 CBRT - CBR Test

Parent Group: CBRG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6491/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	22	Text			
*	SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
*	CBRT_TESN		CBR test number	1	Text			
	CBRT_TOP	%	CBR at top	6.4	Double	0.0		
	?CBRT_TPEN	mm	Top penetration at CBR value	5.0	Double	0.0		New
	?CBRT_CT25	%	CBR top at 2.5 mm	6.4	Double	0.0		New
	?CBRT_CT50	%	CBR top at 5.0 mm	6.4	Double	0.0		New
	CBRT_BOT	%	CBR at bottom	5.2	Double	0.0		
	?CBRT_BPEN	mm	Bottom penetration at CBR value	2.5	Double	0.0		New
	?CBRT_CB25	%	CBR bottom at 2.5 mm	5.2	Double	0.0		New
	?CBRT_CB50	%	CBR bottom at 5.0 mm	5.2	Double	0.0		New
	CBRT_MCT	%	Moisture content at top	15	Double	0.0		
	CBRT_MCBT	%	Moisture content at bottom	14	Double	0.0		
	?CBRT_MCR	%	Moisture content remainder after penetration	15	Double	0.0		New
	CBRT_BDEN	t/m3	Bulk density	1.84	Double	0.00		Rev
	CBRT_DDEN	t/m3	Dry density	1.60	Double	0.00		Rev
	?CBRT_SWEL	%	Swell as percentage of initial height	6.0	Double	0.0		Rev
	?CBRT_LMR	%	Lab moisture ratio when compacted	80.0	Double	0.0		New
	?CBRT_LDR	%	Lab density ratio when compacted	80.0	Double	0.0		New
	?CBRT_MCAC	%	Moisture content after compaction	7.1	Double	0.0		New
	?CBRT_SOAK	day	Soak time	10	Double	0.0		New
	?CBRT_SURC	kg	Surcharge	25.1	Double	0.0		New
	?CBRT_DDAS	t/m3	Dry density after soak	1.62	Double	0.00		New
	?CBRT_CMPE		Compactive effort	Standard	Text		CMPE	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?CBRT_CRIT		Critical	True	Boolean			<i>New</i>
	?CBRT_REM		Test specific remarks	Tested at natural moisture content	Text			<i>New</i>
	?CBRT_METH		Test method	AS 1289.6.1.2-1998	Text		METH	<i>New</i>
	?CBRT_TTBV		Tested by	ABC	Text			<i>New</i>
	?CBRT_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CBRT_PRBY		Processed by	ABC	Text			<i>New</i>
	?CBRT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CBRT_CKBY		Checked by	ABC	Text			<i>New</i>
	?CBRT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CBRT_STAT		Test status	1	Text		STAT	<i>New</i>

A2.3.7 CDIA - Casing Diameter by Depth

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	CDIA_CDEP	m	Depth achieved at CDIA_HOLE	18.0	Double	0.00		
*	CDIA_HOLE	mm	Casing diameter (casing type "HW" or outside diameter "114" mm)	HW or 114	Text		CDIA_HOLE	<i>Rev</i>
	CDIA_REM		Remarks		Text			

A2.3.8 CLSS – Lab Specimens

Parent Group: SAMP (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		
*	SPEC_REF		Specimen reference number	1	Text			
	CLSS_NMC	%	Natural moisture content	57				<i>Del</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CLSS_LL	%	Liquid limit	62				Del
	CLSS_PL	%	Plastic limit	38 or 0 for NP				Del
	CLSS_BDEN	t/m3	Bulk density	1.66				Del
	CLSS_DDEN	t/m3	Dry density	1.06				Del
	CLSS_PD	g/cm3	Particle density	2.65				Del
	CLSS_PREP		Method of preparation	Wet sieve etc				Del
	CLSS_SLIM	%	Shrinkage limit	17				Del
	CLSS_LS	%	Linear shrinkage	11				Del
	CLSS_PPEN	kN/m2	Pocket penetrometer undrained shear strength					Del
	CLSS_HVP	kN/m2	Hand vane undrained shear strength (peak)	40				Del
	CLSS_HVR	kN/m2	Hand vane undrained shear strength (remoulded)	15				Del
	CLSS_VNPK	kN/m2	Laboratory vane undrained shear strength (peak)	35				Del
	CLSS_VNRM	kN/m2	Laboratory vane undrained shear strength (remoulded)	25				Del
	?SPEC_BASE	m	Depth to base of specimen	25.00	Double	0.00		New
	CLSS_425	%	Percentage passing 425µm sieve	12.1	Double	0.0		
	?CLSS_CLSS		Classification group symbol	GM	Text		CLSS	New
	?CLSS_DESC		Specimen description	Silty GRAVEL: fine to medium, brown, 20% silt; or MUDSTONE	Text			New
	?CLSS_REM		Remark		Text			Rev
	?FILE_FSET		Associated file reference	FS231	Text		FILE	

A2.3.9 CMPG - Compaction Tests – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	7.50	Double	0.00		
*	SAMP_REF		Sample reference number	15	Text			
*	SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	7.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
	CMPG_TYPE		Compaction test type	Standard, modified, 2.5kg, 4.5kg or vibro	Text		CMPG_TYPE	

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CMPG_MOLD		Compaction mould type	Mould A, Mould B, Standard or CBR	Text		CMPG_MOLD	<i>Rev</i>
	CMPG_375	%	Mass percent retained on 37.5mm sieve	7	Double	0.0		<i>Rev</i>
	CMPG_200	%	Mass percent retained on 20mm sieve	15	Double	0.0		<i>Rev</i>
	CMPG_PDEN	g/cm3	Particle density measured or assumed (#)	#2.65	Double	0.00		<i>Del</i>
	CMPG_MAXD	t/m3	Maximum dry density	2.06	Double	0.00		<i>Rev</i>
	CMPG_MCOP	%	Moisture content at maximum dry density	14	Double	0.0		
	?CMPG_MCWD	t/m3	Maximum converted wet density	2.06	Double	0.00		<i>New</i>
	?CMPG_AOMC	%	Apparent optimum moisture content	14	Double	0.0		<i>New</i>
	?CMPG_MV	%	Moisture variation		Double	0.0		<i>New</i>
	CMPG_REM		Notes on compaction test		Text			
	?CMPG_METH		Test method	AS 1289.5.1.1-2003	Text		METH	<i>New</i>
	?CMPG_MMC		Moisture content test method	AS 1289.2.1.1-1995	Text		METH	<i>New6</i>
	?CMPG_TMC		Moisture content test method	AS 1289.2.1.1 1995	Text		METH	<i>Del6</i>
	?CMPG_TTBY		Tested by	ABC	Text			<i>New</i>
	?CMPG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CMPG_PRBY		Processed by	ABC	Text			<i>New</i>
	?CMPG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CMPG_CKBY		Checked by	ABC	Text			<i>New</i>
	?CMPG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?CMPG_STAT		Test status	1	Text		STAT	<i>New</i>
	?CMPG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?CMPG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	FILE_FSET		Associated file reference	FS23	Text		FILE	

A2.3.10 CMPT - Compaction Tests

Parent Group: CMPG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	7.50	Double	0.00		
*	SAMP_REF		Sample reference number	15	Text			
*	SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	7.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
*	CMPT_TESN		Compaction point number	1	Text			
	CMPT_MC	%	Moisture content	7.8	Double	0.0		
	CMPT_DDEN	t/m3	Dry density at CMPT_MC moisture content	1.85	Double	0.00		Rev

A2.3.11 CNMT - Contaminant and Chemical Testing

NB. In situ measurement and monitoring of contamination and chemicals should be recorded in Group ?ICCT

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	ES	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		
*	SPEC_REF		Specimen reference number	4	Text			
*	CNMT_TYPE		Determinand	CL	Text		CODE	
*	CNMT_TTYP		Test type	SOLID_WAT	Text		CNMT_TTYP	
	CNMT_RESL		Test result		Text			
	CNMT_UNIT		Test result units	ppm	Text		UNIT	
	CNMT_CAS		Chemical abstract service registry number (where appropriate)		Text			
	CNMT_METH		Test method	AS 1289.4.1.1-1997	Text		METH	
	CNMT_PREP		Sample preparation	Air dried	Text		PREP	
	CNMT_REM		Comments on test		Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CNMT_LIM		Method lower detection limit		Text			
	?CNMT_ULIM		Method upper detection limit		Text			
	CNMT_NAME		Client/laboratory preferred name of determinand	Dry weight Chloride	Text			
	CNMT_LAB		Name of testing laboratory/organisation	Chemical Test House	Text			
	CNMT_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			
	?CNMT_LBID		Laboratory internal reference	LB234675	Text			
	?CNMT_TTBY		Tested by	ABC	Text			New
	?CNMT_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?CNMT_PRBY		Processed by	ABC	Text			New
	?CNMT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?CNMT_CKBY		Checked by	ABC	Text			New
	?CNMT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?CNMT_STAT		Test status	1	Text		STAT	New
	FILE_FSET		Associated file reference	FS22	Text		FILE	

A2.3.12 CODE - Chemical Testing Codes

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	CODE_CODE		Code	CL	Text			
	CODE_DESC		Code Description	Chloride	Text			

A2.3.13 ?COND - Consolidation Deformation

New

Parent Group: CONS (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	ES	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SPEC_REF		Specimen reference number	4	Text			New
*	?CONS_INCN		Oedometer stress increment number	1	Text			New
*	?COND_NMIN	min	Time elapsed	50	Double	0.00		New
	?COND_DEFM	mm	Cumulative deformation	0.15	Double	0.00		New

A2.3.14 CONG - Consolidation Test – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		
*	SPEC_REF		Specimen reference number	4	Text			
	CONG_TYPE		Oedometer or Rowe, primary or secondary consolidation	Oed, Rowe	Text			
	CONG_COND		Sample condition	Undisturbed, remoulded etc	Text			
	CONG_REM		Test details	Temperature 21 degrees C, sample from base of U100 sample, axis vertical	Text			Rev
	?CONG_IVR		Initial voids ratio	0.8	Double	0.00		
	CONG_INCM	m ² /MN	Coefficient of volume compressibility over CONG_INCD	0.36	Double	0.00		
	CONG_INCD	kPa	Defined stress range	100 to 200	Text			Rev
	CONG_DIA	mm	Test specimen diameter	75	Double	0.0		
	CONG_HIGT	mm	Test specimen height	19	Double	0.0		
	CONG_MCI	%	Initial moisture content	21	Double	0.0		
	CONG_MCF	%	Final moisture content	18	Double	0.0		
	CONG_BDEN	t/m ³	Initial bulk density	2.12	Double	0.00		
	CONG_DDEN	t/m ³	Initial dry density	1.75	Double	0.00		
	CONG_PDEN	g/cm ³	Particle density (BS 1377) with # if assumed	#2.65	Double	0.00		Del
	CONG_SATR	%	Initial degree of saturation	98	Double	0.0		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CONG_SPRS	kPa	Swelling pressure	100	Double	0.0		Rev
	CONG_SATH	%	Height change of specimen on saturation as percentage of original height	1.1	Double	0.0		
	?CONG_METH		Test method	AS 1289.6.6.1-1998	Text		METH	New
	?CONG_TTBY		Tested by	ABC	Text			New
	?CONG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?CONG_PRBY		Processed by	ABC	Text			New
	?CONG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?CONG_CKBY		Checked by	ABC	Text			New
	?CONG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?CONG_STAT		Test status	1	Text		STAT	New
	?CONG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?CONG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS9	Text		FILE	

A2.3.15 CONS - Consolidation Test

Parent Group: CONG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		
*	SPEC_REF		Specimen reference number	4	Text			
*	CONS_INCN		Oedometer stress increment number	3	Text			
	CONS_IVR		Voids ratio at start of increment	0.80	Double	0.00		
	CONS_INCF	kPa	Stress at end of stress increment/decrement	400	Double	0.0		Rev
	CONS_INCE		Voids ratio at end of stress increment	0.62	Double	0.00		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	CONS_INMV	m2/MN	Reported coefficient of volume compressibility over stress increment, m_v	0.32	Double	0.00		Rev
	CONS_INCV	m2/yr	Reported coefficient of consolidation over stress increment, c_v	4.12	Double	0.00		Rev
	CONS_INSC		Coefficient of secondary compression over stress increment, c_a	0.12	Double	0.000		Rev
	?CONS_CVRT	m2/yr	Coefficient of consolidation determined by the root time method, c_v	2.10	Double	0.00		Rev
	?CONS_CVLG	m2/yr	Coefficient of consolidation determined by the log time method, c_v	4.12	Double	0.00		Rev
	?CONS_REM		Remarks including method used to determine coefficients reported under CONS_INMV and selected CONS_INCV (from either of ?CONS_CVRT or ?CONS_CVLG)	Log time method reported	Text			

A2.3.16 CORE - Rotary Core Information

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6423/A	Text			
*	CORE_TOP	m	Depth to top of core run	2.54	Double	0.00		
*	CORE_BOT	m	Depth to bottom of core run	3.54	Double	0.00		
	CORE_PREC	%	Percentage of core recovered in core run (TCR)	32	Integer	0		
	CORE_SREC	%	Percentage of solid core recovered in core run (SCR)	23	Integer	0		
	CORE_RQD	%	Rock quality designation for core run (RQD)	20	Integer	0		
	CORE_DIAM	mm	Core diameter	75.0	Double	0.0		
	CORE_REM		Rotary remarks	Rods dropped 200mm at 3.10m	Text			
	?CORE_RATE	hhmmss	Time taken to drill core run	000523	Time	hhmmss		New
	FILE_FSET		Associated file reference	FS5	Text		FILE	

A2.3.17 DETL - Stratum Detail Descriptions

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	DETL_TOP	m	Depth to top of detail description	3.46	Double	0.00		
*	DETL_BASE	m	Depth to base of detail description	3.76	Double	0.00		
	DETL_DESC		Detail description	Claystone	Memo			
	?DETL_LEG		Detailed legend code	S	Text		GEOL_LEG	<i>New</i>

A2.3.18 DICT - User Defined Groups and Headings

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	DICT_TYPE		Flag to indicate group or heading definition	HEADING	Text		DICT_TYPE	
*	DICT_GRP		Group name	ISPT	Text			
*	DICT_HDNG		Heading name	ISPT_CALN	Text			
	DICT_STAT		Heading status KEY or COMMON (blank for Group)	COMMON	Text		DICT_STAT	
	DICT_DESC		Description	Corrected N value	Text			
	DICT_UNIT		Units	m	Text		UNIT	
	?DICT_DTYPE		Data Type	Text	Text			<i>New</i>
	?DICT_DFRM		Data Format	dd/mm/yyyy	Text			<i>New</i>
	DICT_EXMP		Example	20	Text			
	?DICT_PGRP		Parent group name	HOLE	Text			
	?DICT_PICK		Pick List	SAMP_TYPE	Text			<i>New</i>

A2.3.19 DISC - Discontinuity Data

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or traverse name/ number	6421/A	Text			
*	DISC_TOP	m	Depth to top in hole, or distance to start on traverse, of discontinuity zone, or discontinuity	10.26	Double	0.00		
*	DISC_BASE	m	Depth to base in hole, or distance to end on traverse, of discontinuity zone	12.67	Double	0.00		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	FRAC_SET		Discontinuity set reference number	J3	Text			
*	DISC_NUMB		Discontinuity number	57	Text			
	?DISC_MULT		Multiple defects, set true if multiple defects are described by this record	False	Boolean			New
	DISC_TYPE		Type of discontinuity	JT	Text		DISC_TYPE	
	?DISC_TYPS		Type of discontinuity suffix	s, or x2	Text			New
	DISC_DIP	deg	Dip of discontinuity	08				Del
	?DISC_DIPN	deg	Min dip of discontinuity	15	Integer	0		New
	?DISC_DIPX	deg	Max dip of discontinuity	20	Integer	0		New
	DISC_DIR	deg azimuth	Dip direction of discontinuity	247	Integer	0		Rev
	DISC_INFM		Infilling material	KT	Text		DISC_INFM	
	DISC_APOB		Discontinuity aperture observation	CT	Text		DISC_APOB	
	DISC_PLAN		Intermediate scale planarity (ISRM 1978)	PR	Text		DISC_PLAN	Rev6
	DISC_RGH		Small scale roughness (ISRM 1978)	S	Text		DISC_RGH	Rev6
	?DISC_APTS		Discontinuity aperture measurement sign	<	Text		SIGN	New
	DISC_APT	mm	Discontinuity aperture measurement	2	Double	0.0		
	DISC_REM		Remarks		Text			
	?DISC_RGHC		Roughness class	IV	Text		DISC_RGHC	New
	DISC_APP		Surface appearance	Slightly polished	Text			
	DISC_JRC		Joint roughness coefficient	10	Integer	0		
	DISC_WAVE	m	Large scale waviness, wavelength (ISRM 1978)	15	Double	0.0		
	DISC_AMP	m	Large scale waviness, amplitude (ISRM 1978)	0.5	Double	0.0		
	DISC_TERM		Discontinuity termination (lower, upper) (ISRM 1978)	XR	Text		DISC_TERM	
	DISC_PERS	m	Persistence measurement	10.5	Double	0.0		
	DISC_STR	MPa	Discontinuity wall strength	50	Double	0.0		Rev
	DISC_WETH		Discontinuity wall weathering	SW	Text		WETH_GRAD	Rev6
	DISC_SEEP		Seepage rating (ISRM 1978)	VI	Text			
	DISC_FLOW	l/min	Water flow estimate	2	Double	0.0		
	FILE_FSET		Associated file reference	FS24	Text		FILE	

A2.3.20 DPRB - Dynamic Probe Test

NB. The type of probe should be recorded in the Group DPRG

Parent Group: DPRG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6451/A	Text			
*	DPRB_DPTH	m	Depth to start of dynamic probe increment	2.50	Double	0.00		
	DPRB_BLOW		Dynamic probe blows for increment DPRB_INC	7	Integer	0		
	?DPRB_CBLW		Dynamic probe cumulative blows for test	3	Integer	0		New
	DPRB_TORQ	Nm	Maximum torque required to rotate rods	75	Double	0.0		
	DPRB_DEL	hhmm	Duration of delay before increment started	0000	Text	hhmm		
	DPRB_INC	mm	Dynamic probe increment	100	Integer	0		
	DPRB_REM		Notes on events during increment		Text			

A2.3.21 DPRG - Dynamic Probe Test – General

Parent Group: HOLE (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6451/A	Text			
	DPRG_TYPE		Dynamic probe type	DCP9	Text		DPRG_TYPE	Rev
	DPRG_TEST		Test method	AS 1289.6.1.2-1998	Text		METH	Rev
	DPRG_MASS	kg	Hammer mass	50	Double	0.00		
	DPRG_DROP	mm	Standard drop	500	Integer	0		
	DPRG_CONE	mm	Cone base diameter	43	Double	0.0		
	DPRG_ROD	mm	Rod diameter	35	Double	0.0		
	DPRG_DAMP		Type of anvil damper	None	Text			
	DPRG_TIP	m	Depth of cone if left in ground	8.00	Double	0.00		
	?DPRG_ANG	deg	Cone angle	90	Integer	0		
	?DPRG_RMSS	kg/m	Rod mass	9	Double	0.0		
	DPRG_REM		General remarks	Hole backfilled on completion	Text			
	FILE_FSET		Associated file reference	FS25	Text	Text	FILE	

A2.3.22 ?DPRI - DCP Interpretation

New

Parent Group: DPRG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?DPRI_TOP	m	Top of interval	1.00	Double	0.00		New
	?DPRI_BASE	m	Base of interval	2.00	Double	0.00		New
	?DPRI_BLOW		Blows per increment	5.5	Double	0.0		New
	?DPRI_INC	mm	Increment length	25	Integer	0		New
	?DPRI_REM		Remark		Text			New

A2.3.23 DREM - Depth Related Remarks

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	DREM_DPTH	m	Depth of DREM_REM	12.50	Double	0.00		
	?DREM_BDEP	m	Base depth	13.80	Double	0.00		
	DREM_REM		Depth related remark	Driving boulder ahead of casing	Text			

A2.3.24 FILE - Associated Files

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	FILE_FSET		File set reference number	FS128	Text			
*	FILE_NAME		File name	BH1COR08.JPG	Text			
	FILE_DESC		Description of content	BH1 Core photo box 8	Text			
	FILE_TYPE		File type	JPG	Text			
	FILE_PROG		Parent program and version number	Paintshop Pro v 5.0	Text			
	?FILE_DOCT		Document type	PH	Text		FILE_DOCT	
	FILE_DATE	dd/mm/yyyy	File date	31/07/1999	Date	dd/mm/yyyy		

Note: Associated files may have long file names and must have a three character extension.

A2.3.25 FLSH - Rotary Core Flush Details

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	FLSH_FROM	m	Depth to top of flush zone	10.00	Double	0.00		
*	FLSH_TO	m	Depth to bottom of flush zone	20.00	Double	0.00		
	FLSH_TYPE		Type of flush	Water	Text		FLSH_TYPE	
	FLSH_RETN	%	Flush return min	50	Integer	0		
	?FLSH_RETX	%	Flush return max	60	Integer	0		<i>New</i>
	FLSH_COL		Colour of flush return	White	Text			
	?FLSH_REM		Remarks		Text			<i>New</i>

A2.3.26 FRAC - Fracture Spacing

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6423/A	Text			
*	FRAC_TOP	m	Depth to top in hole, or distance to start on traverse, of the zone	31.20	Double	0.00		
*	FRAC_BASE	m	Depth to base in hole, or distance to end on traverse, of the zone	33.65	Double	0.00		
*	FRAC_SET		Discontinuity set reference number	J3	Text			
	FRAC_FI	m ⁻¹	Fracture index over zone, fracture frequency (fractures per metre)	15	Double	0.0		
	FRAC_IMAX	mm	Maximum fracture spacing over zone, maximum defect spacing	350	Integer	0		
	FRAC_IAVE	mm	Average fracture spacing over zone, average defect spacing	220	Integer	0		
	FRAC_IMIN	mm	Minimum fracture spacing over zone, minimum defect spacing	10	Integer	0		
	FILE_FSET		Associated file reference	FS4	Text		FILE	

A2.3.27 GEOL - Stratum Layers

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	GEOL_TOP	m	Depth to the top of stratum	16.21	Double	0.00		
*	GEOL_BASE	m	Depth to the base of stratum	17.25	Double	0.00		
	GEOL_LEG		Legend code for primary material	SW	Text		GEOL_LEG	
	?GEOL_LEGB		Legend code for composite material	CH	Text		GEOL_LEG	New6
	?GEOL_CONF		Defines the confidence of the base boundary. Sets the line type for layer lines within the description column	0	Text		CONF	New
	GEOL_GEO1		Geology code	A1	Text			Rev6
	GEOL_GEO2		Second geology code	II	Text			Rev6
	?GEOL_ORIG		Origin of material	ALV	Text		GEOL_ORIG	Del6
	?GEOL_ORG1		Origin of material 1	ALV	Text		GEOL_ORG	New6
	?GEOL_ORGC		Origin of material conjunction	possibly	Text		CONJ	New6
	?GEOL_ORG2		Origin of material 2	RS	Text		GEOL_ORG	New6
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	?GEOL_BGS		Geology map code	Rw	Text		GEOL_BGS	New6
	GEOL_DESC		General description of stratum. Only use this for legacy data, all new data must be reported on GORA, GORB, GOSA and GOSB	Sandy CLAY, medium plasticity, brown, sand is fine grained	Text			Rev
	FILE_FSET		Associated file reference	FS4	Text		FILE	

Note: If GEOL_GEO1 or GEOL_GEO2 is used then the abbreviation and description must be provided in ABBR.

A2.3.28 ?GORA - Rock Stratum Descriptions

New

Parent Group: GEOL (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?GEOL_TOP	m	Depth to the top of stratum	16.21	Double	0.00		New
*	?GEOL_BASE	m	Depth to the base of stratum	17.25	Double	0.00		New
	?GORA_NAQ		Rock name qualifier	silty	Text		GOR_NAQ	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?GORA_NAM		Rock name	sandstone	Text		GOR_NAM	New
	?GORA_NAS		Rock name suffix		Text			New
	?GORA_C		Colour	Dark red brown	Text		GO_C	New6
	?GORA_CQ1		Colour 1 shade	dark	Text		GO_CQ	Del6
	?GORA_CS1		Colour 1 secondary	red	Text		GO_C	Del6
	?GORA_CP1		Colour 1 primary	brown	Text		GO_C	Del6
	?GORA_CC		Colour conjunction	to	Text		CONJ	Del6
	?GORA_CQ2		Colour 2 shade	pale	Text		GO_CQ	Del6
	?GORA_CS2		Colour 2 secondary	green	Text		GO_C	Del6
	?GORA_CP2		Colour 2 primary	grey	Text		GO_C	Del6
	?GORA_S1		Minimum grain size	fine	Text		GOR_S	New
	?GORA_SC		Grain size conjunction	to	Text		CONJ	New
	?GORA_S2		Maximum grain size	medium	Text		GOR_S	New
	?GORA_TEX		Texture	vuggy	Text		GOR_TEX	New
	?GORA_FAB		Fabric	massive	Text		GOR_FAB	New
	?GORA_ST		Structure	bedded at 5°	Text			New
	?GORA_ODR		Odour	hydrocarbon	Text			New
	?GORA_STN		Staining	oil stained	Text			New
	?GORA_REM		Additional remarks. Any other information or observations on the rock material: general discontinuities, mineral composition, hardness alteration, cementation, etc	occasional coarse grains	Text			New

Note: ?GORA_C may only contain combinations of the words and punctuation listed in Pick List GO_C

A2.3.29 ?GORB – Composite Rock Stratum Descriptions

New

Parent Group: ?GORA (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?GEOL_TOP	m	Depth to the top of stratum	16.21	Double	0.00		New
*	?GEOL_BASE	m	Depth to the base of stratum	17.25	Double	0.00		New
	?GORB_NCQ		Conjunction qualifier for composite rocks	interbedded	Text			New
	?GORB_NC		Conjunction for composite rocks	with	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?GORB_NAQ		Rock name qualifier	silty	Text		GOR_NAQ	New
	?GORB_NAM		Rock name	sandstone	Text		GOR_NAM	New
	?GORB_NAS		Rock name suffix		Text			New
	?GORB_C		Colour	Dark red brown	Text		GO_C	New6
	?GORB_CQ1		Colour 1 shade	dark	Text		GO_CQ	Del6
	?GORB_CS1		Colour 1 secondary	red	Text		GO_C	Del6
	?GORB_CP1		Colour 1 primary	brown	Text		GO_C	Del6
	?GORB_CC		Colour conjunction	to	Text		CONJ	Del6
	?GORB_CQ2		Colour 2 shade	pale	Text		GO_CQ	Del6
	?GORB_CS2		Colour 2 secondary	green	Text		GO_C	Del6
	?GORB_CP2		Colour 2 primary	grey	Text		GO_C	Del6
	?GORB_S1		Minimum grain size	fine	Text		GOR_S	New
	?GORB_SC		Grain size conjunction	to	Text		CONJ	New
	?GORB_S2		Maximum grain size	medium	Text		GOR_S	New
	?GORB_TEX		Texture	vuggy	Text		GOR_TEX	New
	?GORB_FAB		Fabric	massive	Text		GOR_FAB	New
	?GORB_ST		Structure	bedded at 5°	Text			New
	?GORB_ODR		Odour	hydrocarbon	Text			New
	?GORB_STN		Staining	oil stained	Text			New
	?GORB_REM		Additional remarks. Any other information or observations on the rock material: general discontinuities, mineral composition, hardness alteration, cementation, etc	occasional coarse grains	Text			New

Note: ?GORB_C may only contain combinations of the words and punctuation listed in Pick List GO_C

A2.3.30 ?GOSA - Soil Stratum Descriptions

New

Parent Group: GEOL (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?GEOL_TOP	m	Depth to the top of stratum	16.21	Double	0.00		New
*	?GEOL_BASE	m	Depth to the base of stratum	17.25	Double	0.00		New
	?GOSA_CLS		Classification group symbol	GW	Text		CLSS	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?GOSA_NAQ		Primary soil name qualifier	calcareous	Text		GOS_NAQ	New
	?GOSA_NAM		Primary soil name	gravel	Text		GOS_NAM	New
	?GOSA_NAS		Primary soil name suffix		Text			New
	?GOSA_C		Colour	dark red brown	Text		GO_C	New6
	?GOSA_CQ1		Colour 1 shade	dark	Text		GO_CQ	Del6
	?GOSA_CS1		Colour 1 secondary	red	Text		GO_C	Del6
	?GOSA_CP1		Colour 1 primary	brown	Text		GO_C	Del6
	?GOSA_CC		Colour conjunction	to	Text		CONJ	Del6
	?GOSA_CQ2		Colour 2 shade	pale	Text		GO_CQ	Del6
	?GOSA_CS2		Colour 2 secondary	green	Text		GO_C	Del6
	?GOSA_CP2		Colour 2 primary	grey	Text		GO_C	Del6
	?GOSA_P1		Minimum particle size	fine	Text		GOS_P	New
	?GOSA_PC		Particle size conjunction	to	Text		CONJ	New
	?GOSA_P2		Maximum particle size	medium	Text		GOS_P	New
	?GOSA_X	mm	Maximum particle size measurement	5	Double	0.0		New
	?GOSA_U		Particle size uniformity	well	Text		GOS_U	New
	?GOSA_H		Particle shape	angular	Text		GOS_H	New
	?GOSA_L1		Minimum plasticity	low	Text		GOS_L	New
	?GOSA_LC		Plasticity conjunction	to	Text		CONJ	New
	?GOSA_L2		Maximum plasticity	medium	Text		GOS_L	New
	?GOSA_S1		Secondary component 1 name	sand	Text		GOS_NAM	New
	?GOSA_S1D		Secondary component 1 description	fine to medium grained of limestone origin	Text			New
	?GOSA_S2		Secondary component 2 name	clay	Text		GOS_NAM	New
	?GOSA_S2D		Secondary component 2 description	fine to medium grained of limestone origin	Text			New
	?GOSA_M1Q		Minor component 1 name qualifier	trace	Text		GOS_MQ	New
	?GOSA_M1		Minor component 1 name	gravel	Text		GOS_NAM	New
	?GOSA_M1D		Minor component 1 description	fine to medium grained of limestone origin	Text			New
	?GOSA_M2Q		Minor component 2 name qualifier	trace	Text		GOS_MQ	New
	?GOSA_M2		Minor component 2 name	gravel	Text		GOS_NAM	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?GOSA_M2D		Minor component 2 description	fine to medium grained of limestone origin	Text			New
	?GOSA_OMC		Other minor components	trace fine sand	Text			New
	?GOSA_ODR		Odour	hydrocarbon	Text			New
	?GOSA_STN		Staining	black oil	Text			New
	?GOSA_ST		Structure	fissures present	Text			New
	?GOSA_REM		Other matters	occasional cobbles	Text			New

Note: ?GOSA_C may only contain combinations of the words and punctuation listed in Pick List GO_C

A2.3.31 ?GOSB – Composite Soil Stratum Descriptions

New

Parent Group: ?GOSA (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?GEOL_TOP	m	Depth to the top of stratum	16.21	Double	0.00		New
*	?GEOL_BASE	m	Depth to the base of stratum	17.25	Double	0.00		New
	?GOSB_NCQ		Conjunction qualifier for composite soils	interbedded	Text		GOS_NCQ	New
	?GOSB_NC		Conjunction for composite soils	To	Text		CONJ	New
	?GOSB_CLS		Classification group symbol	GW	Text		CLSS	New
	?GOSB_NAQ		Primary soil name qualifier	calcareous	Text		GOS_NAQ	New
	?GOSB_NAM		Primary soil name	gravel	Text		GOS_NAM	New
	?GOSB_NAS		Primary soil name suffix		Text			New
	?GOSB_C		Colour	dark red brown	Text		GO_C	New6
	?GOSB_CQ1		Colour 1 shade	dark	Text		GO_CQ	Del6
	?GOSB_CS1		Colour 1 secondary	green	Text		GO_C	Del6
	?GOSB_CP1		Colour 1 primary	blue	Text		GO_C	Del6
	?GOSB_CC		Colour conjunction	to	Text		CONJ	Del6
	?GOSB_CQ2		Colour 2 shade	pale	Text		GO_CQ	Del6
	?GOSB_CS2		Colour 2 secondary	pink	Text		GO_C	Del6
	?GOSB_CP2		Colour 2 primary	brown	Text		GO_C	Del6
	?GOSB_P1		Minimum particle size	fine	Text		GOS_P	New
	?GOSB_PC		Particle size conjunction	to	Text		CONJ	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?GOSB_P2		Maximum particle size	medium	Text		GOS_P	New
	?GOSB_X	mm	Maximum particle size measurement	5	Double	0.0		New
	?GOSB_U		Particle size uniformity	well	Text		GOS_U	New
	?GOSB_H		Particle shape	angular	Text		GOS_H	New
	?GOSB_L1		Minimum plasticity	low	Text		GOS_L	New
	?GOSB_LC		Plasticity conjunction	to	Text		CONJ	New
	?GOSB_L2		Maximum plasticity	medium	Text		GOS_L	New
	?GOSB_S1		Secondary component 1 name	sand	Text		GOS_NAM	New
	?GOSB_S1D		Secondary component 1 description	fine to medium grained of limestone origin	Text			New
	?GOSB_S2		Secondary component 2 name	clay	Text		GOS_NAM	New
	?GOSB_S2D		Secondary component 2 description	fine to medium grained of limestone origin	Text			New
	?GOSB_M1Q		Minor component 1 name qualifier	trace	Text		GOS_MQ	New
	?GOSB_M1		Minor component 1 name	gravel	Text		GOS_NAM	New
	?GOSB_M1D		Minor component 1 description	fine to medium grained of limestone origin	Text			New
	?GOSB_M2Q		Minor component 2 name qualifier	trace	Text		GOS_MQ	New
	?GOSB_M2		Minor component 2 name	gravel	Text		GOS_NAM	New
	?GOSB_M2D		Minor component 2 description	fine to medium grained of limestone origin	Text			New
	?GOSB_OMC		Other minor components	trace fine sand	Text			New
	?GOSB_ODR		Odour	hydrocarbon	Text			New
	?GOSB_STN		Staining	black oil	Text			New

Note: ?GOSB_C may only contain combinations of the words and punctuation listed in Pick List GO_C

A2.3.32 ?GRAG – Particle Size Distribution Analysis - General

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		New
*	?SPEC_REF		Specimen reference	A	Text			New
*	?GRAG_TESN		Test number	4	Text			Del6
	?GRAG_TYPE		Test type	WS+PP	Text		GRAG_TYPE	New
	?GRAG_LSPT	%	Loss in pre-treatment of the total specimen finer than 2.36 mm	2.1	Double	0.0		New
	?GRAG_MDIS		Dispersion method		Text			New
	?GRAG_TYHY		Hydrometer type		Text			New
	?GRAG_REM		Remarks		Text			New
	?GRAG_MSIV		Test method sieve	AS 1289.3.6.1-1995	Text		METH	New
	?GRAG_MSED		Test method sedimentation	AS 1289.3.6.1-1995	Text		METH	New
	?GRAG_TBY		Tested by	ABC	Text			New
	?GRAG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?GRAG_PRBY		Processed by	ABC	Text			New
	?GRAG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?GRAG_CKBY		Checked by	ABC	Text			New
	?GRAG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?GRAG_STAT		Test status	1	Text		STAT	New
	?GRAG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?GRAG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F34	Text		FILE	New

A2.3.33 ?GRAT - Particle Size Distribution Analysis Data

New6

Parent Group: ?GRAG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New6
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New6
*	?SAMP_REF		Sample reference number	12	Text			New6
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New6
*	?SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		New6

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SPEC_REF		Specimen reference number	2	Text			New6
*	?GRAT_SIZE	mm	Sieve or particle size	3.35	Double			New6
	?GRAT_PERP	%	Percentage passing/finer	25.1	Double	0.0		New6

A2.3.34 HDIA - Hole Diameter by Depth

NB. Casing information should be recorded in the CDIA group

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	HDIA_HDEP	m	Depth achieved at HDIA_HOLE	18.0	Double	0.00		
	HDIA_HOLE	mm	Borehole diameter	200	Integer	0		
	?HDIA_REM		Remarks	Cased to full depth	Text			

A2.3.35 ?HDPH - Depth Related Hole Information

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6422/A	Text			
*	?HDPH_TOP	m	Depth to top of section	1.40	Double	0.00		
*	?HDPH_BASE	m	Depth to base of section	3.45	Double	0.00		Rev
	?HDPH_DEM		Method	WB	Text		HDPH_DEM	New
	?HDPH_DBIT		Drill bit	Stepped ABC	Text			New
	?HDPH_BCON		Bit condition	Good	Text			New
	?HDPH_BLEN	m	Barrel length	3.00	Double	0.00		New
	?HDPH_SHOR		Shoring/support used	None	Text		HDPH_SHOR	
	?HOLE_TYPE		Type of exploratory hole	TP	Text		HOLE_TYPE	
	?HDPH_STAR	dd/mm/yyyy	Date of start of section	01/04/2004	Date	dd/mm/yyyy		
	?HDPH_STAT	hhmm	Time of start of section	0930	Time	hhmm		
	?HDPH_ENDD	dd/mm/yyyy	Date of end of section	01/04/2004	Date	dd/mm/yyyy		
	?HDPH_ENDT	hhmm	Time of end of section	1030	Time	hhmm		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?HDPH_LOG		The definitive person responsible for logging the section	DPG	Text			
	?HDPH_CREW		Name of crew	Bill Mallard	Text			
	?HDPH_EXC		Plant used	JCB –3CX	Text			
	?HDPH_REM		Remarks	Breaker required	Text			
	?FILE_FSET		Associated file reference	FS21	Text		FILE	

A2.3.36 HOLE - Hole Or Location Equivalent

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	327/16A	Text			
	HOLE_TYPE		Type of exploratory hole	BH	Text		HOLE_TYPE	
	HOLE_LOCA		Location sub division within project	Sub Station 1	Text			
	HOLE_STAR	dd/mm/yyyy	Date of start of excavation	18/03/1991	Date	dd/mm/yyyy		
	HOLE_ENDD	dd/mm/yyyy	Hole end date	22/03/1991	Date	dd/mm/yyyy		
	?HOLE_LGDT	dd/mm/yyyy	Logged date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	HOLE_FDEP	m	Final depth of hole	32.60	Double	0.00		
	HOLE_LOCX	m	Project/local grid x coordinate or start of traverse	565	Double	0.000		
	HOLE_LOCY	m	Project/local grid y coordinate or start of traverse	421	Double	0.000		
	HOLE_LOCZ	m	Level to project/local datum or start of traverse	106.6	Double	0.000		
	HOLE_NATE	m	National grid easting of hole or start of traverse	523145	Double	0.000		
	HOLE_NATN	m	National grid northing of hole or start of traverse	178456	Double	0.000		
	HOLE_GL	m	Ground level relative to datum of hole or start of traverse	16.23	Double	0.000		
	HOLE_LOG		The definitive person responsible for logging the hole	DPG	Text			
	HOLE_REM		General remarks on hole	Abandoned on engineer's instruction	Text			
	?HOLE_XTRL	m	Project/local grid easting of end of traverse	523195	Double	0.000		<i>New</i>
	?HOLE_YTRL	m	Project/local grid northing of end of traverse	178486	Double	0.000		<i>New</i>
	?HOLE_ZTRL	m	Project/local elevation of end of traverse	9.67	Double	0.000		<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	HOLE_ETRV	m	National grid easting of end of traverse	523195	Double	0.000		
	HOLE_NTRV	m	National grid northing of end of traverse	178486	Double	0.000		
	HOLE_LTRV	m	Ground level relative to datum of end of traverse	9.67	Double	0.000		
	HOLE_LETT		Letter grid reference	TQ 231 784	Text			Rev
	HOLE_ORNT	deg	Orientation of hole or traverse (degrees from north)	010	Double	000		
	HOLE_INCL	deg	Inclination of hole or traverse (measured positively down from horizontal)	65	Double	00		
	HOLE_BACD	dd/mm/yyyy	Hole backfill date	22/03/1991	Date	dd/mm/yyyy		
	HOLE_CREW		Name of driller	A.B. Driller	Text			
	?HOLE_CKBY		Checked by	ABC	Text			New
	?HOLE_CKDT	dd/mm/yyyy	Checked date	22/03/1991	Date	dd/mm/yyyy		New
	HOLE_EXC		Plant used	Edson 3000	Text			Rev
	HOLE_SHOR		Shoring/support used	None				Del
	?HOLE_EXM		Excavation method, for use with excavation/test pits	1200 mm toothed bucket	Text			Rev6
	HOLE_STAB		Stability	Stable during excavation	Text		HOLE_STAB	
	HOLE_DIML	m	Trial pit or logged traverse length	27.5	Double	0.0		
	HOLE_DIMW	m	Trial pit or logged traverse width	1.3	Double	0.0		
	HOLE_LOCM		Accuracy and method of location XY	dGPS0.1	Text		HOLE_LOCM	
	?HOLE_LCMZ		Accuracy and method of location Z	dGPS0.1	Text		HOLE_LOCM	New
	?HOLE_PHOT		Check if photos taken of excavation or surface	True	Boolean			Del/6
	HOLE_CLST		Hole cluster reference number	CLST01	Text			
	?HOLE_CNGE	m	Chainage	23255.555	Double	0.000		
	?HOLE_OFFS	m	Offset	-10.355	Double	0.000		
	?HOLE_ALIG		Alignment identifier for chainage and offset	ABC-001	Text			New
	?HOLE_STAT		Status of hole information	1	Text		STAT	
	?HOLE_WREM		Water Remark	Groundwater not encountered	Text		HOLE_WREM	New
	?HOLE_TERM		Reason for hole termination	Equipment failure	Text		HOLE_TERM	New
	?HOLE_CONT		Contractor/drilling company	ABC Drilling	Text			New
	?HOLE_PRBY		Processed by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?HOLE_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?HOLE_PURP		Purpose	Tunnel	Text		HOLE_PURP	<i>New</i>
	?HOLE_DBCB	m	Depth borehole / corehole break	5.50	Double	0.00		<i>Del6</i>
	FILE_FSET		Associated file reference	FS2	Text		FILE	

A2.3.37 ?ICBP - In Situ CBR Penetration

New

Parent Group: ICBR (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A or CBR 6	Text			<i>New</i>
*	?ICBR_DPTH	m	Depth to top of CBR test	0.50	Double	0.00		<i>New</i>
*	?ICBR_TESN		Test number	2	Text			<i>New</i>
*	?ICBP_PEN	mm	Penetration in millimetres	1.25	Double	0.00		<i>New</i>
	?ICBP_LOAD	kN	Load/Force	52.125	Double	0.000		<i>New</i>
	?ICBP_REM		Remarks		Text			<i>New</i>

A2.3.38 ICBR - In Situ CBR Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A or CBR 6	Text			
*	ICBR_DPTH	m	Depth to top of CBR test	0.50	Double	0.00		
*	?ICBR_TESN		Test number	2	Text			
	?ICBR_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	ICBR_ICBR	%	CBR value	1.2	Double	0.0		
	?ICBR_PEN	mm	Penetration at which CBR was determined	2.5	Double	0.0		<i>New</i>
	ICBR_MC	%	Moisture content relating to test	25	Double	0.0		
	?ICBR_SEAT	N	Seating force	10	Integer	0		
	?ICBR_SURC	kg	Surcharge mass	15	Double	0.0		<i>Rev</i>
	?ICBR_19Ø	%	Mass percent retained on 19mm sieve, of the top 30mm	5	Double	0.0		<i>New</i>
	?ICBR_TYPE		Type of CBR	Mexecone	Text			
	?ICBR_REM		Details of apparatus and kentledge		Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?ICBR_METH		Test method	AS 1289.6.1.3-1998	Text		METH	New
	?ICBR_TTBV		Tested by	ABC	Text			New
	?ICBR_PRBY		Processed by	ABC	Text			New
	?ICBR_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?ICBR_CKBY		Checked by	ABC	Text			New
	?ICBR_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?ICBR_STAT		Test status	1	Text		STAT	New
	?ICBR_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	?FILE_FSET		Associated file reference	FS2	Text		FILE	New

A2.3.39 ?ICCT - In Situ Contaminant and Chemical Testing

Parent Group: MONP (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6461/A	Text			
*	?MONP_DIS	m	Distance from reference point	2.30	Double	0.00		
*	?MONP_ID		Monitoring point identifier (optional)	ZT111	Text			
*	?ICCT_DATE	dd/mm/yyyy	Date of reading	20/02/2003	Date	dd/mm/yyyy		
*	?ICCT_TIME	hhmmss	Time of reading	134000	Time	hhmmss		
*	?CNMT_TYPE		Determinand	GMETH	Text		CODE	
*	?CNMT_TTYP		Test type	GAS	Text		CNMT_TTYP	
	?ICCT_RESL		Test result	54.76	Text			
	?ICCT_UNIT		Test result units	%vol	Text		UNIT	
	?ICCT_CAS		Chemical abstract service registry number (where appropriate)		Text			
	?ICCT_METH		Test method/instrument type	AS 1141.0-1999	Text		METH	
	?ICCT_PREP		Sample preparation	Air dried	Text			
	?ICCT_REM		Comments on test		Text			
	?ICCT_LIM		Method/instrumentation lower detection limit		Text			
	?ICCT_ULIM		Method/instrumentation upper detection limit		Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?ICCT_NAME		Client/laboratory preferred name of determinand	Methane Gas	Text			
	?ICCT_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			
	?ICCT_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			
	?ICCT_LBID		Laboratory internal reference	LB234675	Text			
	?ICCT_TTBY		Tested by	ABC	Text			New
	?ICCT_PRBY		Processed by	ABC	Text			New
	?ICCT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?ICCT_CKBY		Checked by	ABC	Text			New
	?ICCT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?ICCT_STAT		Test status	1	Text		STAT	New
	?FILE_FSET		Associated file reference	FS22	Text		FILE	

A2.3.40 ?ICIV - Clegg Impact Value

New

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6461/A	Text			New
*	?ICIV_DPTH	m	Distance from reference point	2.30	Double	0.00		New
*	?ICIV_TESN		Test number	1	Text			New
	?ICIV_DATE	dd/mm/yyyy	Test date	01/01/2006	Date	dd/mm/yyyy		New
	?ICIV_TIME	hhmm	Test time	1300	Time	hhmm		New
	?ICIV_ANOM		Visual anomalies		Text			New
	?ICIV_SALT		Surface alterations		Text			New
	?ICIV_SUCN		Surface conditions		Text			New
	?ICIV_SSCN		Sub-surface conditions		Text			New
	?ICIV_CIV		Clegg impact value	5	Integer	0		New
	?ICIV_REM		Remarks		Text			New
	?ICIV_METH		Test method	AS 1289.6.9.1-2000	Text		METH	New
	?ICIV_TTBY		Tested by	ABC	Text			New
	?ICIV_PRBY		Processed by	ABC	Text			New
	?ICIV_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?ICIV_CKBY		Checked by	ABC	Text			New
	?ICIV_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?ICIV_STAT		Test status	1	Text		STAT	New
	?ICIV_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	?GEOL_STAT		Stratum reference	1	Text			New
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.41 IDEN - In Situ Density Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6461/A or DEN 7	Text			
*	IDEN_DPTH	m	Depth of in situ density test	1.25	Double	0.00		
*	?IDEN_TESN		Test number	2	Text			
	?IDEN_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	?IDEN_TIME	hhmm	Test time	1300	Time	hhmm		New
	IDEN_IDEN	t/m3	In situ wet density	1.86	Double	0.00		
	?IDEN_DDEN	t/m3	Dry density	1.86	Double	0.00		New
	IDEN_MC	%	Moisture content relating to in situ test	18	Double	0.0		
	?IDEN_METH		Test method of in situ density		Text		METH	New6
	?IDEN_MMC		Test method of moisture content		Text		METH	New6
	?IDEN_TDEN		Test method of in situ density		Text		METH	Del6
	?IDEN_TMC		Test method of moisture content		Text		METH	Del6
	?IDEN_DTDP	m	Direct transmission depth	0.3	Double	0.0		New
	?IDEN_PO	%	Proportion of oversize material, Po	5	Double	0.0		New
	?IDEN_JO	t/m3	Field wet density of oversize particles	1.86	Double	0.00		New
	?IDEN_MSIZ	mm	Maximum particle size present in-situ	25	Double	0.0		New
	IDEN_REM		Details of in situ density test	Nuclear probe	Text			
	?IDEN_TTBV		Tested by	ABC	Text			New
	?IDEN_PRBY		Processed by	ABC	Text			New
	?IDEN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?IDEN_CKBY		Checked by	ABC	Text			New
	?IDEN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?IDEN_STAT		Test status	1	Text			New
	?IDEN_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	GEOL_STAT		Stratum reference	1	Text			
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.42 ?IDER - In Situ Density Readings

New

Parent Group: IDEN (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6461/A or DEN 7	Text			New
*	?IDEN_DPTH		Depth of in situ density test	1.25	Double	0.00		New
*	?IDEN_TESN		Test number	1	Text			New
*	?IDER_DPTH	m	Depth of probe below IDEN_DPTH level	0.1	Double	0.00		New
	?IDER_BDEN	t/m3	Wet density at probe position	1.86	Double	0.00		New
	?IDER_REM		Remark		Text			New

A2.3.43 ?IFID - On Site Volatile Headspace Testing Using Flame Ionisation Detector

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6461/A or DEN 7	Text			
*	?IFID_DPTH	m	Depth of headspace test sample	1.0	Double	0.00		
*	?IFID_TESN		Test number	2	Text			
	?IFID_DATE	dd/mm/yyyy	Test date	20/02/2006	Date	dd/mm/yyyy		
	?IFID_RES	ppmv	Result of FID analysis	10	Double			
	?IFID_REM		Details of FID used and method description	Flame ionisation detector	Text			
	?IFID_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	?GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			

A2.3.44 ?IINF - Infiltration**New**

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6461/A	Text			New
*	?IINF_DPTH	m	Depth of infiltration test	0.40	Double	0.00		New
*	?IINF_TESN		Test number	1	Text			New
	?IINF_DATE	dd/mm/yyyy	Test date	01/01/2006	Date	dd/mm/yyyy		New
	?IINF_IH	mm	Initial head	500	Double	0.0		New
	?IINF_FH	mm	Final head	400	Double	0.0		New
	?IINF_SECS	s	Time interval	500	Double	0.0		New
	?IINF_DIA	mm	Diameter of template	250	Double	0.0		New
	?IINF_INF	ml/min	Infiltration	100	Double	0.0		New
	?IINF_MCSU		Moisture condition of surface immediate prior to test	Dry, damp	Text			New
	?IINF_MCSS		Moisture condition of sub-surface immediate prior to test	Dry, damp	Text			New
	?IINF_REM		Remark		Text			New
	?IINF_METH		Test method	RTA t168	Text		METH	New
	?IINF_TTBV		Tested by	ABC	Text			New
	?IINF_PRBY		Processed by	ABC	Text			New
	?IINF_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?IINF_CKBY		Checked by	ABC	Text			New
	?IINF_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?IINF_STAT		Test status	1	Text		STAT	New
	?IINF_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	?GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	2	Text			New
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.45 ?IMAG - Image**New**

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?IMAG_TOP	m	Top of image	1.00	Double	0.00		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?IMAG_BASE	m	Base of image	2.00	Double	0.00		New
*	?IMAG_TESN		Image number	a	Text			New
	?IMAG_TYPE		Image type	VSC	Text		IMAG_TYPE	New
	?IMAG_ORNT	deg azimuth	Orientation/direction faced when the image was taken, i.e. the bearing the camera was pointed	060	Double	000		New
	?IMAG_DESC		Description	Western face, showing fissures	Text			New
	?IMAG_REM		Remark	Poor image	Text			New
	?IMAG_DATE	dd/mm/yyyy	Image date	20/02/2003	Date	dd/mm/yyyy		New
	?IMAG_TIME	hhmm	Image time	1330	Time	hhmm		New
	?IMAG_BY		Person responsible for the image	ABC	Text			New
	?GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	A	Text			New
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

Note: Image files must be provided using the following file naming convention and be in bmp or jpg format.

Core box photo containing core from BH1 with depths 31.15m to 33.15m: BH1_31.15-33.15.jpg

The first photo related to test pit TP1: TP1_1.jpg (where the second "1" is the image number for that test pit). The second photo for TP1 would be named TP1_2.jpg

A2.3.46 ?IPID - On Site Volatile Headspace Testing by Photo Ionisation Detector

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	?IPID_DPTH	m	Depth of headspace test sample	1.0	Double	0.00		
*	?IPID_TESN		Test number	a	Text			
	?IPID_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	?IPID_RES	ppmv	Result of PID analysis	10	Double			
	?IPID_REM		Details of PID used and method description	Carried out on temporary samples using photo ionisation detector fitted with 10.6 eV lamp	Text			
	?IPID_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	?GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			

A2.3.47 IPRM - In Situ Permeability Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6471/A	Text			
*	IPRM_TOP	m	Depth to top of test zone	12.20	Double	0.00		
*	IPRM_BASE	m	Depth to base of test zone	12.95	Double	0.00		
*	IPRM_STG		Stage number of multistage packer test (retained due to rule 6, must be null/empty in AGS RTA)		Text			Rev
*	?IPRM_TESN		Test number	2	Text			
	IPRM_TYPE		Type of test	Rising, Falling, Constant Head	Text		IPRM_TYPE	
	?IPRM_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	IPRM_PRWL	m	Depth to water in borehole or piezometer immediately prior to test	10.60	Double	0.00		
	IPRM_SWAL	m	Depth to water at start of test	5.40	Double	0.00		
	IPRM_TDIA	m	Diameter of test zone	0.150	Double	0.000		
	IPRM_SDIA	m	Diameter of standpipe or casing	0.019	Double	0.000		
	?IPRM_IPRS		Coefficient of permeability sign	<	Text		SIGN	New
	IPRM_IPRM	m/s	Permeability	5E-09	Double	0.0E00		
	IPRM_AWL	m	Depth to assumed standing water level	10.00	Double	0.00		
	IPRM_FLOW	l/s	Average flow during packer test stage	2.3	Double			Del
	?IPRM_FTyp		Flow type	Laminar	Text		IPRM_FTyp	New
	?IPRM_ULS		Design Lugeon value sign	>	Text		SIGN	New
	?IPRM_UL	uL	Design Lugeon value	100	Double	0.0		New
	IPRM_REM		Test remarks		Text			
	IPRM_HEAD	m	Applied total head of water during test stage at centre of packer test zone	20.5	Double			Del
	?IPRM_METH		Test method		Text		METH	New
	?IPRM_TTBY		Tested by	ABC	Text			New
	?IPRM_PRBY		Processed by	ABC	Text			New
	?IPRM_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?IPRM_CKBY		Checked by	ABC	Text			New
	?IPRM_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?IPRM_STAT		Test status	1	Text		STAT	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?IPRM_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	FILE_FSET		Associated file reference	FS26	Text		FILE	

A2.3.48 ?IPRS - In Situ Perm Stage

New

Parent Group: IPRM (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?IPRM_TOP	m	Depth to top of test zone	2.53	Double	0.00		New
*	?IPRM_BASE	m	Depth to base of test zone	5.52	Double	0.00		New
*	?IPRM_STG		Stage number of multistage packer test (retained due to rule 6, must be null/empty in AGS RTA)		Text			New
*	?IPRM_TESN		Test Number	1	Text			New
*	?IPRS_STG		Stage number of multistage packer test	1	Text			New
	?IPRS_PRES	kPa	Corrected pressure	200.0	Double	0.0		New
	?IPRS_VOL	l	Volume	12.0	Double	0.0		New
	?IPRS_DUR	min	Stage duration	2.0	Double	0.0		New
	?IPRS_FLOW	l/min	Average flow during packer test stage	1.2	Double	0.0		New
	?IPRS_ULS		Lugeon value sign	<	Text		SIGN	New
	?IPRS_UL	uL	Lugeon value	1.0	Double	0.0		New
	?IPRS_IPRS		Coefficient of permeability sign	<	Text		SIGN	New
	?IPRS_IPRM	m/s	Coefficient of permeability, k	5E-09	Double	0.0E00		New
	?IPRS_REM		Test remarks		Text			New

A2.3.49 IRDX - In Situ Redox Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A or RDX 2	Text			
*	IRDX_DPTH	m	Depth of redox test	1.00	Double	0.00		
*	?IRDX_TESN		Test number	2	Text			
	?IRDX_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	IRDX_PH		pH	7.0	Double	0.0		
	IRDX_IRDX	mV	Redox potential	400.0	Double	0.0		
	IRDX_REM		Details of redox test and probe type		Text			
	?IRDX_METH		Test method	BS ISO 11271:2002	Text		METH	New
	?IRDX_TTBY		Tested by	ABC	Text			New
	?IRDX_PRBY		Processed by	ABC	Text			New
	?IRDX_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?IRDX_CKBY		Checked by	ABC	Text			New
	?IRDX_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?IRDX_STAT		Test status	1	Text		STAT	New
	?IRDX_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.50 IRES - In Situ Resistivity Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A or RES/12	Text			
*	IRES_DPTH	m	Depth range to which in situ resistivity test relates	10.00	Double	0.00		
*	?IRES_TESN		Test number	2	Text			
	IRES_TYPE		Type of resistivity test		Text			
	?IRES_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	IRES_IRES	ohm m	Result	20.1	Double			Rev
	IRES_REM		Details of test e.g. electrode spacing and configuration		Text			
	?IRES_METH		Test method	BS 1377-9:1990:5.1	Text		METH	New
	?IRES_TTBY		Tested by	ABC	Text			New
	?IRES_PRBY		Processed by	ABC	Text			New
	?IRES_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?IRES_CKBY		Checked by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?IRES_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?IRES_STAT		Test status	1	Text		STAT	New
	?IRES_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.51 ISPT - Standard Penetration Test Results

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	ISPT_TOP	m	Depth to top of test	13.50	Double	0.00		
	ISPT_TYPE		Type of SPT test	S	Text		ISPT_TYPE	
	?ISPT_RWP	mm	Rod weight penetration	20	Integer	0		New
	?ISPT_HWP	mm	Hammer weight penetration	50	Integer	0		New
	ISPT_INC1		Number of blows for 1st Increment (seating)	6	Integer	0		Rev
	ISPT_INC2		Number of blows for 2nd Increment (Seating)	8	Integer			Del
	ISPT_INC3		Number of blows for 1st Increment (test)	8	Integer	0		Rev
	ISPT_INC4		Number of blows for 2nd Increment (Test)	9	Integer			Del
	ISPT_INC5		Number of blows for 2nd Increment (test)	9	Integer	0		Rev
	ISPT_INC6		Number of blows for 4th Increment (Test)	9	Integer			Del
	ISPT_PEN1	mm	Penetration for 1st Increment (seating drive)	150	Integer	0		Rev
	ISPT_PEN2	mm	Penetration for 2nd Increment (Seating Drive)	75	Integer			Del
	ISPT_PEN3	mm	Penetration for 1st increment (test)	150	Integer	0		Rev
	ISPT_PEN4	mm	Penetration for 2nd Increment (Test)	75	Integer			Del
	ISPT_PEN5	mm	Penetration for 2nd increment (test)	150	Integer	0		Rev
	ISPT_PEN6	mm	Penetration for 4th Increment (Test)	75	Integer			Del
	?ISPT_HB		Hammer bouncing	True	Boolean			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	ISPT_SEAT		Number of blows for seating drive	14	Integer	0		
	ISPT_MAIN		Number of blows for main test drive	35	Integer	0		
	ISPT_NPEN	mm	Total penetration for seating drive and test drive	450	Integer	0		
	ISPT_NVAL		SPT 'N' value	35	Integer	0		
	ISPT_REP		SPT reported result	9,9,9 N=18	Text			
	ISPT_CAS	m	Casing depth at time of test	12.00	Double	0.00		
	?ISPT_CDIA	mm	Casing type, casing outside diameter, or hole diameter	123 or HW	Text		CDIA_HOLE	New
	ISPT_WAT	m	Depth to water at time of test	2.50	Double	0.00		
	ISPT_REM		Remarks relating to the test	Borehole topped up with water prior to test	Text			
	?ISPT_METH		Test method	AS 1289.6.3.1-2004	Text		METH	New
	?ISPT_SWP	mm	Self weight penetration	25	Double			Del
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.52 IVAN - In Situ Vane and Hand Penetrometer Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A or VAN 15	Text			
*	IVAN_DPTH	m	Depth of vane test	13.50	Double	0.00		
*	IVAN_TESN		Vane test number	2	Text			
	IVAN_REM		Details of vane test, vane size, vane type		Text			
	?IVAN_IVNS		Result peak sign	>	Text		SIGN	New
	IVAN_IVAN	kPa	Vane test result	60	Integer	0		Rev
	?IVAN_IVRS		Result remoulded sign	>	Text		SIGN	New
	IVAN_IVAR	kPa	Vane test remoulded result	45	Integer	0		Rev
	IVAN_IPEN	kN/m ²	Hand penetrometer result	23	Integer			Del
	?IVAN_PP1S		Hand/pocket penetrometer UCS 1 sign	<	Text		SIGN	New
	?IVAN_PP1	kPa	Hand/pocket penetrometer UCS 1	10	Integer	0		New
	?IVAN_PP2S		Hand/pocket penetrometer UCS 2 sign	>	Text		SIGN	New
	?IVAN_PP2	kPa	Hand/pocket penetrometer UCS 2	500	Integer	0		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?IVAN_TVS		Torvane sign	>	Text		SIGN	New
	?IVAN_TV	kPa	Torvane result	45	Integer	0		New
	?IVAN_DATE	dd/mm/yyyy	Test date	20/02/2003	Date	dd/mm/yyyy		
	?IVAN_VNID		Vane ID	V01	Text			New
	?IVAN_BWID	mm	Blade width	23.0	Double	0.0		New
	?IVAN_VTID		Torque device ID	T01	Text			New
	?IVAN_RROT	deg/min	Rate of rotation	360.0	Double	0.0		New
	?IVAN_METH		Test method	AS 1289.6.2.1-2001	Text		METH	New
	?IVAN_CRED		Accrediting body and reference number (When appropriate)	NATA 12345	Text			New6
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.53 ?LCPF - Compaction Factor

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	7.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	15	Text			New
*	?SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	7.50	Double	0.00		New
*	?SPEC_REF		Specimen reference number	2	Text			New
	?LCPF_CMPE		Compactive effort	standard	Text		CMPE	New
	?LCPF_MC	%	Moisture content at compaction	34	Double	0.0		New
	?LCPF_LCPF		Compaction factor	0.2	Double	0.0		New
	?LCPF_REM		Remarks		Text			New
	?LCPF_METH		Test method	RTA t163	Text		METH	New
	?LCPF_TTBY		Tested by	ABC	Text			New
	?LCPF_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LCPF_PRBY		Processed by	ABC	Text			New
	?LCPF_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LCPF_CKBY		Checked by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LCPF_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LCPF_STAT		Test status	1	Text		STAT	New
	?LCPF_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LCPF_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	FS23	Text		FILE	New

A2.3.54 ?LCPR - Capillary Rise

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		New
*	?SPEC_REF		Specimen reference number	4	Text			New
	?LCPR_MC	%	Moisture content at compaction	13.2	Double	0.0		New
	?LCPR_CMPE		Compactive effort	Standard	Text		CMPE	New
	?LCPR_DDEN	t/m3	Dry density as compacted	2.15	Double	0.00		New
	?LCPR_PDCU	hr	Period of curing	5	Double	0.0		New
	?LCPR_CNCU		Conditions of curing		Text			New
	?LCPR_SWEL	%	Swell during absorption	5.1	Double	0.0		New
	?LCPR_WAPS	%	Water absorption as percentage of mass	5.1	Double	0.0		New
	?LCPR_LCPR	%	Capillary rise of water as a percentage of specimen height	5.1	Double	0.0		New
	?LCPR_REM		Remarks		Text			New
	?LCPR_METH		Test method	RTA t172	Text		METH	New
	?LCPR_TTBV		Tested by	ABC	Text			New
	?LCPR_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LCPR_PRBY		Processed by	ABC	Text			New
	?LCPR_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LCPR_CKBY		Checked by	ABC	Text			<i>New</i>
	?LCPR_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LCPR_STAT		Test status	1	Text		STAT	<i>New</i>
	?LCPR_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?LCPR_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	?FILE_FSET		Associated file reference	FS5	Text		FILE	<i>New</i>

A2.3.55 ?LCSI - Core Shrinkage Index

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	12	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference number	4	Text			<i>New</i>
	?LCSI_LCSI		Core shrinkage index		Double	0.00		<i>New</i>
	?LCSI_SMC	%/pF	Soil moisture characteristic, percentage content change per pF change in soil suction		Double	0.0		<i>New</i>
	?LCSI_ISS	pF	Initial soil suction		Double	0.0		<i>New</i>
	?LCSI_MCF	%	Final moisture content of specimen	35	Double	0.0		<i>New</i>
	?LCSI_GRAD	mm/g	Gradient of initial linear part		Double	0.00		<i>New</i>
	?LCSI_SIIC	%	Estimated percentage of significant inert inclusions in the soil specimen	5	Integer	0		<i>New</i>
	?LCSI_CCRM		Cracking remark		Text			<i>New</i>
	?LCSI_SMCR		Soil moisture characteristic remark		Text			<i>New</i>
	?LCSI_REM		Remarks		Text			<i>New</i>
	?LCSI_METH		Test method	AS 1289.7.1.3-1998	Text		METH	<i>New</i>
	?LCSI_TTBV		Tested by	ABC	Text			<i>New</i>
	?LCSI_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LCSI_PRBY		Processed by	ABC	Text			<i>New</i>
	?LCSI_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LCSI_CKBY		Checked by	ABC	Text			<i>New</i>
	?LCSI_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LCSI_STAT		Test status	1	Text		STAT	<i>New</i>
	?LCSI_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?LCSI_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	?FILE_FSET		Associated file reference	FS5	Text		FILE	<i>New</i>

A2.3.56 ?LCSR - Core Shrinkage Readings

New

Parent Group: ?LCSI (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	12	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference number	4	Text			<i>New</i>
*	?LCSR_MLOS	g	Mass loss	1.20	Double	0.00		<i>New</i>
	?LCSR_SHMV	mm	Shrinkage Movement	0.65	Double	0.00		<i>New</i>

A2.3.57 ?LDEN – Density Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference	18	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SPEC_REF		Specimen reference	2	Text			New
	?LDEN_BDEN	t/m3	Bulk density	1.86	Double	0.00		New
	?LDEN_DDEN	t/m3	Dry density	1.76	Double	0.00		New
	?LDEN_REM		Remarks		Text			New
	?LDEN_METH		Test method	ISO/TS 17892-2:2004	Text		METH	New
	?LDEN_TTBV		Tested by	ABC	Text			New
	?LDEN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LDEN_PRBY		Processed by	ABC	Text			New
	?LDEN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LDEN_CKBY		Checked by	ABC	Text			New
	?LDEN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LDEN_STAT		Test status	1	Text		STAT	New
	?LDEN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LDEN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F12	Text		FILE	New

A2.3.58 ?LDIS - Percent Dispersion

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Text	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Text	0.00		New
*	?SPEC_REF		Specimen reference	6.50	Text			New
	?LDIS_LDIS	%	Percent dispersion	5	Integer	0		New
	?LDIS_REM		Remarks		Text			New
	?LDIS_METH		Test method	AS 1289.3.8.2-1997	Text		METH	New
	?LDIS_TTBV		Tested by	ABC	Text			New
	?LDIS_DATE	dd/mm/yyyy	Date tested	01/01/2006	Text	dd/mm/yyyy		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LDIS_PRBY		Processed by	ABC	Text			New
	?LDIS_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LDIS_CKBY		Checked by	ABC	Text			New
	?LDIS_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LDIS_STAT		Test status	1	Text		STAT	New
	?LDIS_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LDIS_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.59 ?LDYN - Laboratory Dynamic Testing

New6

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New6
*	?SAMP_TOP	m	Depth to top of sample	6.50	Text	0.00		New6
*	?SAMP_REF		Sample reference number	18	Text			New6
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New6
*	?SPEC_DPTH	m	Specimen depth	2	Text	0.00		New6
*	?SPEC_REF		Specimen reference	6.50	Text			New6
	?LDYN_PWAV	m/s	P-wave velocity	3000	Double	0.00		New6
	?LDYN_SWAV	m/s	S-wave velocity	1800	Double	0.00		New6
	?LDYN_EMOD	GPa	Dynamic elastic modulus	20	Double	0.00		New6
	?LDYN_SG	GPa	Shear modulus from ?LDYN_SWAV	8	Double	0.00		New6
	?LDYN_REM		Remarks		Text			New6
	?LDYN_METH		Test method		Text		METH	New6
	?LDYN_TTBV		Tested by	ABC	Text			New6
	?LDYN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Text	dd/mm/yyyy		New6
	?LDYN_PRBY		Processed by	ABC	Text			New6
	?LDYN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New6
	?LDYN_CKBY		Checked by	ABC	Text			New6
	?LDYN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New6
	?LDYN_STAT		Test status	1	Text		STAT	New6

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LDYN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New6
	?LDYN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New6
	?FILE_FSET		Associated file reference	F23	Text		FILE	New6

A2.3.60 ?LEMC - Emerson Class

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		New
*	?SPEC_REF		Specimen reference	4	Text			New
	?LEMC_LEMC		Emerson class number	Class 1	Text		LEMC_LEMC	New
	?LEMC_WTYP		Type of water used	Deionised	Text			New
	?LEMC_TEMP	DegC	Temperature of water used	27.5	Double	0.0		New
	?LEMC_METH		Test method	AS 1289.3.8.1-1997	Text		METH	New
	?LEMC_TTBV		Tested by	ABC	Text			New
	?LEMC_DATE	dd/mm/yyyy	Date tested		Date	dd/mm/yyyy		New
	?LEMC_PRBY		Processed by	ABC	Text			New
	?LEMC_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LEMC_CKBY		Checked by	ABC	Text			New
	?LEMC_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LEMC_STAT		Test status	1	Text		STAT	New
	?LEMC_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LEMC_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.61 ?LHIF - Hlf Density Ratio and Moisture Variation

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.90	Double	0.00		New
*	?SPEC_REF		Specimen reference number	4	Text			New
	?LHIF_CWD	t/m3	Peak converted wet density	1.84	Double	0.00		New
	?LHIF_ACWD	t/m3	Adjusted peak converted wet density	1.84	Double	0.00		New
	?LHIF_WV	%	Moisture variation, -ve for dryer, +ve for wetter	-5	Double	0.0		New
	?LHIF_AWV	%	Adjusted moisture variation, -ve for dryer, +ve for wetter	5	Double	0.0		New
	?LHIF_LHIF	%	Hlf density ratio	5	Double	0.0		New
	?LHIF_SZUN	mm	Size cut off material too coarse for testing	37.5	Double	0.0		New
	?LHIF_UN	%	Proportion of material too coarse for testing on a wet basis	5	Double	0.0		New
	?LHIF_REM		Remarks		Text			New
	?LHIF_METH		Test method	AS 1289.5.7.1-1993	Text		METH	New
	?LHIF_TTB		Tested by	ABC	Text			New
	?LHIF_DATE	dd/mm/yyyy	Date tested		Date	dd/mm/yyyy		New
	?LHIF_PRBY		Processed by	ABC	Text			New
	?LHIF_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LHIF_CKBY		Checked by	ABC	Text			New
	?LHIF_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LHIF_STAT		Test status	1	Text		STAT	New
	?LHIF_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LHIF_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	FS21	Text		FILE	New

A2.3.62 ?LLIN - Linear Shrinkage Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		New
*	?SPEC_REF		Specimen reference	2	Text			New
	?LLIN_LS	%	Linear shrinkage	3.1	Double	0.0		New
	?LLIN_LEN	mm	Mould length	250.0	Double	0.0		New
	?LLIN_HIST		Sample history	A	Text		HIST	New
	?LLIN_PREP		Method of preparation	WS	Text		PREP	New
	?LLIN_REM		Remarks		Text			New
	?LLIN_METH		Test method	AS 1289.3.4.1-1995	Text		METH	New
	?LLIN_MMC		Moisture content test method	AS 1289.3.4.1-1995	Text		METH	New
	?LLIN_TTBV		Tested by	ABC	Text			New
	?LLIN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date			New
	?LLIN_PRBY		Processed by	ABC	Text			New
	?LLIN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date			New
	?LLIN_CKBY		Checked by	ABC	Text			New
	?LLIN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date			New
	?LLIN_STAT		Test status	1	Text		STAT	New
	?LLIN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LLIN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F12	Text		FILE	New

A2.3.63 ?LLPL – Liquid and Plastic Limit Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6491/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	22	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference number	2	Text			<i>New</i>
	?LLPL_LL	%	Liquid limit	32	Integer	0		<i>New</i>
	?LLPL_LLRM		Liquid limit remark	NO	Text		LLPL_RM	<i>New</i>
	?LLPL_PL	%	Plastic limit	21	Integer	0		<i>New</i>
	?LLPL_PLRM		Plastic Limit remark	NP	Text		LLPL_RM	<i>New</i>
	?LLPL_PI	%	Plasticity index	11	Integer	0		<i>New</i>
	?LLPL_PIRM		Plasticity index remark	NP	Text		LLPL_RM	<i>New</i>
	?LLPL_HIST		Sample history	A	Text		HIST	<i>New</i>
	?LLPL_PREP		Prep method	WS	Text		PREP	<i>New</i>
	?LLPL_MLL		Method LL	AS 1289.3.1.1-1995	Text		METH	<i>New</i>
	?LLPL_MPL		Method PL	AS 1289.3.2.1-1995	Text		METH	<i>New</i>
	?LLPL_MPI		Method PI	AS 1289.3.3.1-1995	Text		METH	<i>New</i>
	?LLPL_MMC		Method MC	AS 1289.2.1.1-1995	Text		METH	<i>New</i>
	?LLPL_REM		Remarks		Text			<i>New</i>
	?LLPL_TTBV		Tested by	ABC	Text			<i>New</i>
	?LLPL_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LLPL_PRBY		Processed by	ABC	Text			<i>New</i>
	?LLPL_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LLPL_CKBY		Checked by	ABC	Text			<i>New</i>
	?LLPL_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LLPL_STAT		Test status	3	Text		STAT	<i>New</i>
	?LLPL_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?LLPL_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?FILE_FSET		Associated file reference	FS16	Text		FILE	New

A2.3.64 ?LMOC – Moisture Content Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6491/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	22	Text			New
*	?SAMP_TYPE		Sample type	D	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		New
*	?SPEC_REF		Specimen reference	2	Text			New
	?LMOC_MC	%	Moisture content	12.5	Double	0.0		New6
	?LMOC_NMC	%	Natural moisture content	12.5	Double	0.0		Del6
	?LMOC_TEMP	DegC	Temperature specimen dried at if less than 105°C	105.0	Double	0.0		New
	?LMOC_FLCO	%	Fluid content	12.5	Double	0.0		New
	?LMOC_REM		Remarks		Text			New
	?LMOC_METH		Test method	AS 1289.2.1.1-2005	Text		METH	New
	?LMOC_TTBY		Tested by	ABC	Text			New
	?LMOC_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LMOC_PRBY		Processed by	ABC	Text			New
	?LMOC_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LMOC_CKBY		Checked by	ABC	Text			New
	?LMOC_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LMOC_STAT		Test status	3	Text		STAT	New
	?LMOC_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LMOC_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.65 ?LPDN - Particle Density Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	18	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference	A	Text			<i>New</i>
	?LPDN_PDEN	g/cm3	Particle density of total specimen	2.71	Double	0.00		<i>New</i>
	?LPDN_ASUM		Particle density assumed, not calculated	False	Boolean			<i>New</i>
	?LPDN_PDF	g/cm3	Particle density on fraction passing 2.36 mm	2.71	Double	0.00		<i>New</i>
	?LPDN_PDC	g/cm3	Particle density on fraction retained on 2.36 mm	2.71	Double	0.00		<i>New</i>
	?LPDN_PDS	g/cm3	Particle density, saturated surface dry (SSD)	2.71	Double	0.00		<i>New</i>
	?LPDN_WA	%	Water absorption	5.0	Double	0.0		<i>New</i>
	?LPDN_REM		Remarks		Text			<i>New</i>
	?LPDN_METH		Test method	AS 1289.3.5.1-1995	Text		METH	<i>New</i>
	?LPDN_TTBV		Tested by	ABC	Text			<i>New</i>
	?LPDN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPDN_PRBY		Processed by	ABC	Text			<i>New</i>
	?LPDN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPDN_CKBY		Checked by	ABC	Text			<i>New</i>
	?LPDN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPDN_STAT		Test status	1	Text		STAT	<i>New</i>
	?LPDN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?LPDN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	?FILE_FSET		Associated file reference	F23	Text		FILE	<i>New</i>

A2.3.66 ?LPEN – Laboratory Hand Penetrometer Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		New
*	?SPEC_REF		Specimen reference	A	Text			New
	?LPEN_PP1S		Hand penetrometer result UCS 1 on sample sign	>	Text		SIGN	New
	?LPEN_PP1	kPa	Hand penetrometer result UCS 1 on sample result	40	Integer	0		New
	?LPEN_PP2S		Hand penetrometer result UCS 2 on sample sign	<	Text		SIGN	New
	?LPEN_PP2	kPa	Hand penetrometer result UCS 2 on sample result	500	Integer	0		New
	?LPEN_REM		Remarks		Text			New
	?LPEN_METH		Test method		Text		METH	New
	?LPEN_TTBV		Tested by	ABC	Text			New
	?LPEN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LPEN_PRBY		Processed by	ABC	Text			New
	?LPEN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LPEN_CKBY		Checked by	ABC	Text			New
	?LPEN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LPEN_STAT		Test status	1	Text		STAT	New
	?LPEN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LPEN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.67 ?LPHD - Pinhole Dispersion Classification of a Soil

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	18	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference	A	Text			<i>New</i>
	?LPHD_LPHD		Pinhole class	D1	Text		LPHD_LPHD	<i>New</i>
	?LPHD_IMC	%	Moisture content of soil test sample before test	15. 1	Double	0.0		<i>New</i>
	?LPHD_DDEN	t/m3	Dry density of test sample before testing	1.84	Double	0.00		<i>New</i>
	?LPHD_TMMT	hr	Time to mature the sample in the soil specimen cylinder	3.50	Double	0.00		<i>New</i>
	?LPHD_REM		Remarks		Text			<i>New</i>
	?LPHD_METH		Test method	AS 1289.3.8.3-1997	Text		METH	<i>New</i>
	?LPHD_TTBY		Tested by	ABC	Text			<i>New</i>
	?LPHD_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPHD_PRBY		Processed by	ABC	Text			<i>New</i>
	?LPHD_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPHD_CKBY		Checked by	ABC	Text			<i>New</i>
	?LPHD_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?LPHD_STAT		Test status	1	Text		STAT	<i>New</i>
	?LPHD_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?LPHD_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	?FILE_FSET		Associated file reference	F34	Text		FILE	<i>New</i>

A2.3.68 ?LRES - Lab Resistivity**New**

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		New
*	?SPEC_REF		Specimen reference number	2	Text			New
	?LRES_LRES	ohm m	Mean resistivity	15.5	Double	0.0		New
	?LRES_LDR	%	Lab density ratio, LDR	95	Double	0.0		New
	?LRES_DI	%	Density index	80	Double	0.0		New
	?LRES_REM		Remarks		Text			New
	?LRES_METH		Test method	AS 1289.4.4.1-1997	Text		METH	New
	?LRES_TTBY		Tested by	ABC	Text			New
	?LRES_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LRES_PRBY		Processed by	ABC	Text			New
	?LRES_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LRES_CKBY		Checked by	ABC	Text			New
	?LRES_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LRES_STAT		Test status	1	Text		STAT	New
	?LRES_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LRES_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F12	Text		FILE	New

A2.3.69 ?LSEQ - Sand Equivalent**New**

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		New
*	?SPEC_REF		Specimen reference number	2	Text			New
	?LSEQ_LSEQ		Sand equivalent	3	Integer	0		New
	?LSEQ_TEMP	DegC	Temperature	27	Double			New
	?LSEQ_REM		Remark		Text			New
	?LSEQ_METH		Test method	AS 1289.3.7.1-2002	Text		METH	New
	?LSEQ_TTBV		Tested by	ABC	Text			New
	?LSEQ_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LSEQ_PRBY		Processed by	ABC	Text			New
	?LSEQ_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LSEQ_CKBY		Checked by	ABC	Text			New
	?LSEQ_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LSEQ_STAT		Test status	1	Text		STAT	New
	?LSEQ_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LSEQ_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	FS18	Text		FILE	New

A2.3.70 ?LSIN - Loaded Shrinkage Index

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		New
*	?SPEC_REF		Specimen reference	6.50	Text			New
	?LSIN_LSIN		Loaded shrinkage index	1.21	Double	0.00		New
	?LSIN_SMC	%/pF	Soil moisture characteristic, percentage content change per pF change in soil suction		Double	0.00		New
	?LSIN_MCF	%	Final moisture content of	35.2	Double	0.0		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
			specimen					
	?LSIN_MCFC	%	Final calculated moisture content of specimen	34.5	Double	0.0		New
	?LSIN_SIIC	%	Estimated percentage of significant inert inclusions in the soil specimen	1.0	Double	0.0		New
	?LSIN_REM		Remarks		Text			New
	?LSIN_METH		Test method	AS 1289.7.1.2-1998	Text		METH	New
	?LSIN_TTBV		Tested by	ABC	Text			New
	?LSIN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LSIN_PRBY		Processed by	ABC	Text			New
	?LSIN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LSIN_CKBY		Checked by	ABC	Text			New
	?LSIN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LSIN_STAT		Test status	1	Text		STAT	New
	?LSIN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LSIN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F12	Text		FILE	New

A2.3.71 ?LSLT – Shrinkage Limit Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		New
*	?SPEC_REF		Specimen reference	1	Text			New
	?LSLT_SLIM	%	Shrinkage limit	5.1	Double	0.0		New
	?LSLT_SHRA		Shrinkage ratio	12.0	Double	0.0		New
	?LSLT_BDEN	t/m3	Initial density	1.66	Double	0.00		New
	?LSLT_REM		Remarks		Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LSLT_PREP		Method of preparation	DS	Text		PREP	New
	?LSLT_METH		Test method	BS1377-2:1990:6.3	Text		METH	New
	?LSLT_TTBV		Tested by	ABC	Text			New
	?LSLT_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LSLT_PRBY		Processed by	ABC	Text			New
	?LSLT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LSLT_CKBY		Checked by	ABC	Text			New
	?LSLT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LSLT_STAT		Test status	1	Text		STAT	New
	?LSLT_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LSLT_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	FS18	Text		FILE	New

A2.3.72 ?LSSI - Shrink-Swell Index

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		New
*	?SPEC_REF		Specimen reference	1	Text			New
	?LSSI_LSSI	%strain/pF	Shrink swell index		Double	0.00		New
	?LSSI_MCSH	%	Moisture content of shrinkage specimen	35.1	Double	0.0		New
	?LSSI_MCSW	%	Moisture content of swelling specimen	38.1	Double	0.0		New
	?LSSI_SIIC	%	Estimated percentage of significant inert inclusions in the soil specimen	1	Integer	0		New
	?LSSI_SCRM		Soil crumbling remark		Text			New
	?LSSI_CRRM		Cracking remark		Text			New
	?LSSI_REM		Remarks		Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LSSI_METH		Test method	AS 1289.7.1.1-2003	Text		METH	New
	?LSSI_TTBV		Tested by	ABC	Text			New
	?LSSI_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LSSI_PRBY		Processed by	ABC	Text			New
	?LSSI_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LSSI_CKBY		Checked by	ABC	Text			New
	?LSSI_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LSSI_STAT		Test status	1	Text		STAT	New
	?LSSI_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LSSI_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.73 ?LSTG - Lime Stabilisation Tests - General

New6

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New6
*	?SAMP_TOP	m	Depth to top of sample	6.50	Text	0.00		New6
*	?SAMP_REF		Sample reference number	18	Text			New6
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New6
*	?SPEC_DPTH	m	Specimen depth	2	Text	0.00		New6
*	?SPEC_REF		Specimen reference	6.50	Text			New6
	?LSTG_ICL	%	Initial consumption of lime	4.4	Double	0.0		New6
	?LSTG_LIME		Details of lime used for test	Laboratory grade Calcium Hydroxide	Text			New6
	?LSTG_REM		Remarks		Text			New6
	?LSTG_METH		Test method		Text		METH	New6
	?LSTG_TTBV		Tested by	ABC	Text			New6
	?LSTG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Text	dd/mm/yyyy		New6
	?LSTG_PRBY		Processed by	ABC	Text			New6
	?LSTG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New6
	?LSTG_CKBY		Checked by	ABC	Text			New6

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LSTG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New6
	?LSTG_STAT		Test status	1	Text		STAT	New6
	?LSTG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New6
	?LSTG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New6
	?FILE_FSET		Associated file reference	F23	Text		FILE	New6

A2.3.74 ?LSTT - Lime Stabilisation Tests

New6

Parent Group: ?LSTG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New6
*	?SAMP_TOP	m	Depth to top of sample	6.50	Text	0.00		New6
*	?SAMP_REF		Sample reference number	18	Text			New6
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New6
*	?SPEC_DPTH	m	Specimen depth	2	Text	0.00		New6
*	?SPEC_REF		Specimen reference	6.50	Text			New6
*	?LSTT_TESN		Test number	1	text			New6
	?LSTT_LCON	%	Line content	2.0	Double	0.0		New6
	?LSTT_PH		pH of lime suspension	12.40	Double	0.0		New6
	?LSTT_REM		Remarks on individual determination		Text			New6

A2.3.75 ?LVAN – Laboratory Vane Test

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		New
*	?SPEC_REF		Specimen reference	6.50	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?LVAN_VNPS		Laboratory vane undrained shear strength (peak) sign	>	Text		SIGN	New
	?LVAN_VNPK	kPa	Laboratory vane undrained shear strength (peak)	35	Integer	0		New
	?LVAN_VNRS		Laboratory vane undrained shear strength (remoulded) sign	>	Text		SIGN	New
	?LVAN_VNRM	kPa	Laboratory vane undrained shear strength (remoulded)	25	Integer	0		New
	?LVAN_TV		Torvane undrained shear strength sign	<	Text		SIGN	New
	?LVAN_TV	kPa	Torvane undrained shear strength	5	Integer	0		New
	?LVAN_MTV		Test method for Torvane		Text		METH	New
	?LVAN_VNID		Vane ID	V01	Text			New
	?LVAN_BWID	mm	Blade width	23.0	Double	0.0		New
	?LVAN_VTID		Torque device ID	T01	Text			New
	?LVAN_RROT	deg/min	Rate of rotation	360.0	Double	0.0		New
	?LVAN_REM		Vane remark		Text			New
	?LVAN_METH		Test method	BS 1377-7:1990:3	Text		METH	New
	?LVAN_TTBY		Tested by	ABC	Text			New
	?LVAN_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?LVAN_PRBY		Processed by	ABC	Text			New
	?LVAN_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?LVAN_CKBY		Checked by	ABC	Text			New
	?LVAN_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?LVAN_STAT		Test status	1	Text		STAT	New
	?LVAN_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?LVAN_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F23	Text		FILE	New

A2.3.76 MCVG - MCV Test – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	SAMP_REF		Sample reference number	18	Text			
*	SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
	MCVG_REM		Notes on MCV test as BS 1377 Part 4 Cl. 5.4, and 5.5. Test report items a) and c)		Text			
	MCVG_200	%	Mass percent retained on 19mm or 20mm sieve	15.0	Double	0.0		
	MCVG_NMC	%	Natural moisture content	24	Double			Del
	MCVG_PRCL		MCV precalibrated value as BS 1377 Part 4 and whether higher or lower	>10	Text			
	?MCVG_METH		Test method	BS 1377-4:1990:5.4	Text		METH	New
	?MCVG_TTB		Tested by	ABC	Text			New
	?MCVG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?MCVG_PRBY		Processed by	ABC	Text			New
	?MCVG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?MCVG_CKBY		Checked by	ABC	Text			New
	?MCVG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?MCVG_STAT		Test status	1	Text		STAT	New
	?MCVG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?MCVG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS15	Text		FILE	

A2.3.77 MCVT - MCV Test

Parent Group: MCVG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	18	Text			
*	SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	MCVT_TESN		MCV test number	1	Text			
	MCVT_MC	%	Moisture content	17	Double			
	MCVT_RELK		MCV value at MCVT_MC moisture content	12.3	Double			
	MCVT_BDEN	t/m3	Bulk density related to the MCVT_RELK MCV	2.01	Double			

A2.3.78 ?MONP - Monitor Point

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6422/A	Text			
*	?MONP_DIS	m	Distance of monitoring point from HOLE_ID	2.30	Double	0.00		
*	?MONP_ID		Monitoring point identifier	ZT102	Text			
	?MONP_DATE	dd/mm/yyyy	Installation date	01/02/2003	Date	dd/mm/yyyy		
	?MONP_TYPE		Instrument type	TS	Text		MONP_TYPE	
	?MONP_TRZ	m	Distance to start of response zone from HOLE_ID datum	5.50	Double	0.00		
	?MONP_BRZ	m	Distance to end of response zone from HOLE_ID datum	7.50	Double	0.00		
	?MONP_BRGA	deg	Bearing of monitoring axis A (compass bearing)	090	Text			
	?MONP_BRGB	deg	Bearing of monitoring axis B (compass bearing)	180	Text			
	?MONP_BRGC	deg	Bearing of monitoring axis C (compass bearing)	NA	Text			
	?MONP_INCA	deg	Inclination of instrument axis A (measured positively down from horizontal)	090	Text			
	?MONP_INCB	deg	Inclination of instrument axis B (measured positively down from horizontal)	090	Text			
	?MONP_INCC	deg	Inclination of instrument axis C (measured positively down from horizontal)	090	Text			
	?MONP_RSCA		Reading sign convention in direction A	Displacement to East +ve	Text			
	?MONP_RSCB		Reading sign convention in direction B	Displacement to South +ve	Text			
	?MONP_RSCC		Reading sign convention in direction C	Displacement up +ve	Text			
	?MONP_REM		Remarks	Behind wall	Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?FILE_FSET		Associated file reference	FS27	Text		FILE	

A2.3.79 ?MONR - Monitor Point Reading

Parent Group: ?MONP (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6422/A	Text			
*	?MONP_DIS	m	Distance of monitoring point from HOLE_ID	2.30	Double	0.00		
*	?MONP_ID		.	ZT102	Text			
*	?MONR_DATE	dd/mm/yyyy	Date of reading	20/02/2003	Date	dd/mm/yyyy		
*	?MONR_TIME	hhmmss	Time of reading	134000	Time	hhmmss		
	?MONR_DSTA	m	Distance A from HOLE_ID (slip indicator top rod)	2.73	Double			
	?MONR_DSTB	m	Distance B from HOLE_ID (slip indicator top rod)	11.56	Double			
	?MONR_DSPA	mm	Displacement in direction A	0.024	Double			
	?MONR_DSPB	mm	Displacement in direction B	0.127	Double			
	?MONR_DSPC	mm	Displacement in direction C	-10.842	Double			
	?MONR_PRES	kPa	Pressure	20.64	Double			Rev
	?MONR_ANGA	deg	Rotation/Tilt in direction A	0.023	Double			
	?MONR_ANGB	deg	Rotation/Tilt in direction B	-0.284	Double			
	?MONR_ANGC	deg	Rotation in direction C	2.42	Double			
	?MONR_STRA	%	Strain in direction A	-1.87	Double			
	?MONR_STRB	%	Strain in direction B	1.09	Double			
	?MONR_STRC	%	Strain in direction C	1.23	Double			
	?MONR_FORC	kN	Force	62.8	Double			
	?MONR_TEMP	DegC	Temperature	21.2	Double			
	?MONR_WDEP	m	Depth to water from HOLE_ID datum	6.42	Double			
	?MONR_EAST	m	Absolute position (Easting)	523145	Double			
	?MONR_NRTH	m	Absolute position (Northing)	178963	Double			
	?MONR_LEV	m	Absolute position (Level)	10.2	Double			
	?MONR_WHD	m	Head of water above tip	2.1	Double			
	?MONR_GAUG	m	Gauge length	0.50	Double			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?MONR_FLOW	l/s	Flow	20.1	Double			
	?MONR_VEL	m/s	Velocity	12.4	Double			New
	?MONR_BRG	deg azimuth	Bearing	034	Double	000		New
	?MONR_REM		Details for instrument reference, probe logger, serial numbers		Text			
	?MONR_TTBY		Tested by	ABC	Text			New
	?MONR_PRBY		Processed by	ABC	Text			New
	?MONR_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?MONR_CKBY		Checked by	ABC	Text			New
	?MONR_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?MONR_STAT		Reading status	1	Text		STAT	New
	?FILE_FSET		Associated file reference	FS28	Text		FILE	

A2.3.80 ?PENR - Penetration Resistance

New

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?PENR_TOP	m	Depth to top of section	12.00	Double	0.00		New
	?PENR_BASE	m	Depth to base of section	15.00	Double	0.00		New
	?PENR_PENN		Minimum penetration resistance	VE	Text		PENR_PEN	New
	?PENR_PENX		Maximum penetration resistance	H	Text		PENR_PEN	New
	?PENR_CONF		Confidence (line type)	0	Text		CONF	New
	?PENR_REM		Remarks		Memo			New

A2.3.81 ?PMTD - Pressuremeter Test Data

New6

Parent Group: ?PMTG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New6
*	?PMTG_TREF		Reference number of test	1	Text			New6
*	?PMTG_DPTH	m	Depth of test	2.70	Double	0.00		New6

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?PMTD_SEQ		Sequence number	1	Text			New6
	?PMTD_ARM1	mm	Arm (pair) 1 displacement	1.0	Double	0.0		New6
	?PMTD_ARM2	mm	Arm (pair) 2 displacement	1.0	Double	0.0		New6
	?PMTD_ARM3	mm	Arm (pair) 3 displacement	1.0	Double	0.0		New6
	?PMTD_TPC1	kPa	Total pressure/arm (pair) 1	54.40	Double	0.00		New6
	?PMTD_TPC2	kPa	Total pressure/arm (pair) 2	54.40	Double	0.00		New6
	?PMTD_TPC3	kPa	Total pressure/arm (pair) 3	54.40	Double	0.00		New6
	?PMTD_PPA	kPa	Pore pressure cell A	2.90	Double	0.00		New6
	?PMTD_PPB	kPa	Pore pressure cell B	2.90	Double	0.00		New6
	?PMTD_REM		Remarks		Text			New6
	?PMTD_PRES	kPa	Total pressure in test cell	60.1	Double	0.00		New6
	?PMTD_VOL	cm3	Volume change in test cell	2.6	Double	0.0		New6

A2.3.82 ?PMTG - Pressuremeter Test Results, General

New6

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New6
*	?PMTG_TREF		Reference number of test	1	Text			New6
*	?PMTG_DPTH	m	Depth of test	2.70	Double	0.00		New6
	?PMTG_DATE	dd/mm/yyyy	Date of test	22/12/1993	Date	dd/mm/yyyy		New6
	?PMTG_TYPE		Pressuremeter type	SBP	Text		PMTG_TYPE	New6
	?PMTG_DIA	mm	Uninflated diameter of pressuremeter	82.9	Double	0.0		New6
	?PMTG_HAA	kPa	Estimated horizontal stress, average	700	Double	0.0		New6
	?PMTG_GIAA	MPa	Initial shear modulus, average	70	Double	0.0		New6
	?PMTG_CUAA	kPa	Undrained shear strength, average	420	Double	0.0		New6
	?PMTG_PLAA	kPa	Limit pressure, average	3400	Double	0.0		New6
	?PMTG_AFAA	deg	Angle of friction, average	39	Double	0.0		New6
	?PMTG_ADAA	deg	Angle of dilation, average	10	Double	0.0		New6
	?PMTG_AFCV	deg	Angle of friction at constant volume (ϕ_{cv}) used	35	Double	0.0		New6
	?PMTG_REM		Remarks		Text			New6
	?PMTG_METH		Test method	EN ISO 22476-4	Text		METH	New6

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?PMTG_TTBV		Tested by	ABC	Text			New6
	?PMTG_PRBY		Processed by	ABC	Text			New6
	?PMTG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New6
	?PMTG_CKBY		Checked by	ABC	Text			New6
	?PMTG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New6
	?PMTG_STAT		Test status	1	Text		STAT	New6
	?FILE_FSET		Associated file reference	FS11	Text		FILE	New6

A2.3.83 ?PMTL - Pressuremeter Test Results, Individual Loops

New6

Parent Group: ?PMTG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New6
*	?PMTG_TREF		Reference number of test	1	Text			New6
*	?PMTG_DPTH	m	Depth of test	2.70	Double	0.00		New6
*	?PMTL_LNO		Unload/reload loop number	1	Text			New6
	?PMTL_GAA	MPa	Unload/reload shear modulus, average	70	Double	0.0		New6
	?PMTL_SINC	%	Mean strain	3.840	Double	0.000		New6
	?PMTL_PINC	kPa	Mean pressure	1586	Double	0.0		New6
	?PMTL_STR	%	Strain range or amplitude	0.105	Double	0.000		New6
	?PMTL_PRSA	kPa	Pressure range or amplitude	284	Double	0.0		New6

A2.3.84 PTIM - Hole Progress by Time

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	PTIM_DATE	dd/mm/yyyy	Date of progress reading	20/03/1991	Date	dd/mm/yyyy		
*	PTIM_TIME	hhmm	Time of progress reading	1435	Time	hhmm		
	PTIM_DEP	m	Hole depth at PTIM_TIME	22.13	Double	0.00		
	PTIM_CAS	m	Depth of casing at PTIM_TIME	20.50	Double	0.00		
	PTIM_WAT	m	Depth to water at PTIM_TIME	16.56	Double	0.00		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?PTIM_SFTM		Shift time	E	Text		PTIM_SFTM	New
	PTIM_REM		Remarks at PTIM_TIME	Stopped drilling on client's instruction	Text			

A2.3.85 PTST - Laboratory Permeability Tests

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6411/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
*	PTST_TESN		Permeability test number	2	Text			
	PTST_REM		Remark	Constant head permeability test	Text			Rev
	PTST_COND		Sample condition	Undisturbed	Text			
	PTST_SZUN	mm	Size cut off of material too coarse for testing	5	Double	0.0		
	PTST_UN	%	Proportion of material too coarse for testing - BS 1377 Part 5 Cl 5.7	36	Double	0.0		
	PTST_DIA	mm	Diameter of test sample	102	Double	0.0		
	PTST_LEN	mm	Length of test sample	200	Double	0.0		
	PTST_MC	%	Initial moisture content of test sample	20	Double	0.0		
	PTST_BDEN	t/m3	Initial bulk density of test sample	2.24	Double	0.00		Rev
	PTST_DDEN	t/m3	Dry density of test sample	1.87	Double	0.00		Rev
	PTST_VOID		Voids ratio of test sample	0.37	Double	0.00		
	PTST_K	m/s	Coefficient of permeability	4.0E-06	Double	0.0E00		
	PTST_TSTR	kPa	Mean effective stress at which permeability measured (when measured in triaxial cell)	112	Double	0.0		Rev
	PTST_ISAT	%	Initial degree of saturation	72	Double	0.0		
	PTST_FSAT	%	Final degree of saturation	98	Double	0.0		
	PTST_PDEN	g/cm3	Particle density, measured or (#) assumed	2.65	Double	0.00		Del
	?PTST_HYGT		Hydraulic gradient		Double	0.00		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?PTST_LMR	%	Lab moisture ratio, LMR	95.0	Double	0.0		New
	?PTST_LDR	%	Lab density ratio, LDR	95.0	Double	0.0		New
	?PTST_TCMP		Test method compaction		Text		METH	New
	?PTST_SURC	kg	Surcharge applied to specimen during test	2.00	Double	0.00		New
	?PTST_PRES	kPa	Pressure applied to specimen during test	3.0	Double	0.0		New
	?PTST_PMUD		Permeant used		Text			New
	?PTST_MCA	%	Moisture content after test	25.4	Double	0.0		New
	?PTST_METH		Test method	AS 1289.6.7.1-2001	Text		METH	New
	?PTST_TTBY		Tested by	ABC	Text			New
	?PTST_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?PTST_PRBY		Processed by	ABC	Text			New
	?PTST_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?PTST_CKBY		Checked by	ABC	Text			New
	?PTST_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?PTST_STAT		Test status	1	Text		STAT	New
	?PTST_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?PTST_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS28	Text		FILE	

A2.3.86 PUMP - Pumping Test

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	PUMP_DATE	dd/mm/yyyy	Date of reading	16/03/1991	Date	dd/mm/yyyy		
*	PUMP_TIME	hhmmss	Time of reading	143500	Time	hhmmss		
	PUMP_DPTH	m	Depth to water below ground	12.5	Double	0.00		
	PUMP_QUAT	l/s	Pumping rate from hole	0.8	Double	0.0		
	PUMP_REM		Remarks	Double packer	Text			
	FILE_FSET		Associated file reference	FS29	Text		FILE	

A2.3.87 ?RCKS - Rock Strength

New

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?RCKS_TOP	m	Depth to top of section	1.00	Double	0.00		New
*	?RCKS_BASE	m	Depth to base of section	2.56	Double	0.00		New
	?RCKS_STRN		Rock strength min	L	Text		RCKS_STR	New
	?RCKS_CONJ		Conjunction	-	Text		CONJ	New
	?RCKS_STRX		Rock strength max	M	Text		RCKS_STR	New
	?RCKS_CONF		Confidence (line type)	0	Text		CONF	New

A2.3.88 RELD - Relative Density Test

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	8.50	Double	0.00		
*	SAMP_REF		Sample reference number	16	Text			
*	SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	8.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
	RELD_DMAX	t/m3	Maximum dry density	2.15	Double	0.00		Rev
	RELD_DMIN	t/m3	Minimum dry density	1.65	Double	0.00		Rev
	?RELD_VOLM	cm3	Volume of mould	2803.0	Double	0.0		New
	RELD_375	%	Mass percent retained on 37.5mm sieve	7.0	Double	0.0		Rev
	RELD_063	%	Mass percent retained on 6.3mm sieve	10	Double	0.0		Rev
	RELD_020	%	Mass percent retained on 2mm sieve	5.0	Double	0.0		Rev
	?RELD_TMAX		Maximum dry density test method		Text		METH	New
	?RELD_TMIN		Minimum dry density test method		Text		METH	New
	RELD_REM		Remark		Text			
	?RELD_TTBY		Tested by	ABC	Text			New
	?RELD_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?RELD_PRBY		Processed by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?RELD_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?RELD_CKBY		Checked by	ABC	Text			New
	?RELD_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?RELD_STAT		Test status	1	Text		STAT	New
	?RELD_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?RELD_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F12	Text		FILE	New

A2.3.89 ROCK - Rock Testing

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6423/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	2.54	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	C	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	2.54	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
	ROCK_PLS	MN/m2	Uncorrected point load (I _s)	2.3	Double			Del
	ROCK_PLSI	MN/m2	Size corrected point load index (I _{s50})	2.5	Double			Del
	ROCK_PLTF		Point load test type	A	Text			Del
	ROCK_PREM		Details additional to ROCK_PLTF					Del
	ROCK_UCS	MPa	Uniaxial compressive strength (size corrected)	16.8	Double	0.0		Rev
	ROCK_UREM		Notes on uniaxial compressive strength test, including sample dimensions	ISRM 76mm diameter 205mm high	Text			
	ROCK_REM		Remarks		Text			
	ROCK_E	MPa	Elastic modulus	220	Integer	0		Rev
	ROCK_MU		Poisson's ratio	0.3	Double	0.00		
	ROCK_BRAZ	MPa	Tensile strength by the Brazilian method	50	Double	0.0		Rev
	ROCK_BREM		Notes on Brazilian tensile strength test including sample dimensions	ISRM 76mm diameter 32mm thick	Text			
	ROCK_PORO	%	Rock porosity	17	Double	0.0		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	ROCK_PORE		Notes on type of porosity test	ISRM Calliper method	Text			
	ROCK_MC	%	Natural moisture content	18	Double	0.0		
	ROCK_BDEN	t/m3	Rock bulk density	2.22	Double	0.00		
	ROCK_DDEN	t/m3	Rock dry density	1.88	Double	0.00		
	ROCK_PDEN	t/m3	Aggregate particle density	2.53	Double	0.00		
	ROCK_DREM		Aggregate particle density test method and notes	BS812 Gas jar method. Saturated, surface dried 10 mm aggregate	Text			
	ROCK_WTAB	%	Aggregate water absorption	2.6	Double	0.0		
	ROCK_WREM		Aggregate water absorption test method and notes	BS812 Gas jar method 10 mm aggregate	Text			
	ROCK_SDI	%	Slake durability Index	23.2	Double	0.0		
	ROCK_SREM		Slake durability test method and notes	ISRM 2nd cycle Tap water at 20 deg C	Text			
	ROCK_SOUN	%	Aggregate soundness test	95	Double	0.0		
	ROCK_MREM		Aggregate soundness test method and notes	BS 812 Magnesium sulphate 10-14mm aggregate 5 cycles % retained	Text			
	ROCK_ACV	%	Aggregate crushing value	16.5	Double	0.0		
	ROCK_CREM		Aggregate crushing value test method and notes	BS812 10-14mm aggregate	Text			
	ROCK_AIV	%	Aggregate impact value	15	Double	0.0		
	ROCK_IREM		Aggregate impact value test method and notes	BS812 10-14mm aggregate, saturated 15 blows	Text			
	ROCK_LOSA	%	Aggregate Los Angeles abrasion	15	Double	0.0		
	ROCK_LREM		Aggregate Los Angeles abrasion test method and notes	ASTM C131 9.5-19mm aggregate 500 revolutions	Text			
	ROCK_AAV		Aggregate abrasion value	8.32	Double	0.00		
	ROCK_PSV		Aggregate polished stone value	67	Double	0.0		
	ROCK_FI	%	Aggregate flakiness index	9	Double	0.0		
	ROCK_EI	%	Aggregate elongation index	12	Double	0.0		
	ROCK_DESC		Specimen description	Mudstone	Text			Del
	ROCK_SHOR		Shore hardness	29.7	Double	0.0		
	ROCK_PWAV	m/s	P-wave velocity	3000	Integer	0		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	ROCK_SWAV	m/s	S-wave velocity	1800	Integer	0		
	ROCK_EMOD	GPa	Dynamic elastic modulus	20	Integer	0		
	ROCK_SG	GPa	Shear modulus derived from ROCK_SWAV	8	Integer	0		
	ROCK_SWEL	kPa	Rock swelling index	50	Double	0.0		Rev
	?ROCK_METH		Test method	AS 4133.1.1.1-2005	Text		METH	New
	?ROCK_TTBY		Tested by	ABC	Text			New
	?ROCK_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?ROCK_PRBY		Processed by	ABC	Text			New
	?ROCK_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?ROCK_CKBY		Checked by	ABC	Text			New
	?ROCK_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?ROCK_STAT		Test status	1	Text		STAT	New
	?ROCK_LAB		Name of testing laboratory/organisation	ABC Rock Testing	Text			New
	?ROCK_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS10	Text		FILE	

A2.3.90 ?RPLT – Point Load Rock Strength Index

New

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6481/A	Text			New
*	?SAMP_TOP	m	Depth to top of sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	18	Text			New
*	?SAMP_TYPE		Sample type	LB	Text		SAMP_TYPE	New
*	?SPEC_DPTH	m	Specimen depth	2	Double	0.00		New
*	?SPEC_REF		Specimen reference	A	Text			New
*	?RPLT_TESN		Point load test number	1	Text			New
	?RPLT_PLTF		Test type; A, D, B or I	A	Text		RPLT_PLTF	New
	?RPLT_ORIN		Orientation; L or P	P	Text		RPLT_ORIN	New
	?RPLT_MCOD		Moisture condition	F	Text		RPLT_MCOD	New
	?RPLT_P	kN	Failure load	20.45	Double	0.00		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?RPLT_PLS	MPa	Uncorrected point load (Is)	2.55	Double	0.00		<i>New</i>
	?RPLT_PLSS		Sign for size corrected point load index (Is 50)	>	Text		SIGN	<i>New</i>
	?RPLT_PLSI	MPa	Size corrected point load index (Is 50)	3.15	Double	0.00		<i>New</i>
	?RPLT_REM		Remark		Text			<i>New</i>
	?RPLT_MC	%	Moisture content	2.1	Double	0.0		<i>New</i>
	?RPLT_METH		Test method	AS 4133.4.1-2005	Text		METH	<i>New</i>
	?RPLT_TTBV		Tested by	ABC	Text			<i>New</i>
	?RPLT_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?RPLT_PRBY		Processed by	ABC	Text			<i>New</i>
	?RPLT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?RPLT_CKBY		Checked by	ABC	Text			<i>New</i>
	?RPLT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?RPLT_LAB		Name of testing laboratory/organisation	ABC Rock Testing	Text			<i>New</i>
	?RPLT_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	?RPLT_STAT		Test status	1	Text		STAT	<i>New</i>
	?FILE_FSET		Associated file reference	F34	Text		FILE	<i>New</i>

A2.3.91 SAMP - Sample Reference Information

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	SAMP_TOP	m	Depth to top of sample	24.55	Double	0.00		
*	SAMP_REF		Sample reference number	24	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
	SAMP_BASE	m	Depth to base of sample	25.00	Double	0.00		
	SAMP_DIA	mm	Sample diameter	100	Double			
	?SAMP_REC	m	Recovered length	0.3	Double	0.00		<i>New</i>
	SAMP_REM		Sample remarks	60% recovery	Text			
	SAMP_DESC		Sample description	Stiff brown CLAY	Text			
	SAMP_UBLO		Number of blows required to drive sampler	35	Integer			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	SAMP_DATE	dd/mm/yyyy	Date sample taken	26/03/1991	Date	dd/mm/yyyy		
	SAMP_TIME	hhmmss	Time sample taken	092800	Time	hhmmss		
	SAMP_BAR	kPa	Barometric pressure at time of sampling	99.1	Double	0.0		Rev
	SAMP_WDEP	m	Depth to water below ground surface at time of sampling	4.50	Double	0.00		
	SAMP_TEMP	DegC	Sample temperature at time of sampling	8	Double	0.0		
	SAMP_PRES	kPa	Gas pressure (above barometric)	0.2	Double	0.0		Rev
	SAMP_FLOW	l/min	Gas flow	0.2	Double	0.0		
	?SAMP_PREP		Details of sample preparation	Preservative added	Text			
	GEOL_STAT		Stratum reference shown on trial pit or traverse sketch	1	Text			
	FILE_FSET		Associated file reference	FS3	Text		FILE	

A2.3.92 SHBG - Shear Box Testing – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
	SHBG_TYPE		Test type e.g. small shear box, large shear box, ring shear	Small shear box	Text			
	SHBG_REM		Test notes e.g. undisturbed, pre-existing shear, recompacted, rock joint, cut plane	Undisturbed	Text			
	SHBG_PCOH	kPa	Peak cohesion intercept	5	Double	0.0		Rev
	SHBG_PHI	deg	Peak angle of friction	26.5	Double	0.0		
	SHBG_RCOH	kPa	Residual cohesion intercept	1	Double	0.0		Rev
	SHBG_RPHI	deg	Residual angle of friction	13.0	Double	0.0		
	?SHBG_METH		Test method	AS 1289.6.2.2-1998	Text		METH	New
	?SHBG_TTBV		Tested by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?SHBG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?SHBG_PRBY		Processed by	ABC	Text			New
	?SHBG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?SHBG_CKBY		Checked by	ABC	Text			New
	?SHBG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?SHBG_STAT		Test status	1	Text		STAT	New
	?SHBG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?SHBG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS18	Text		FILE	

A2.3.93 ?SHBS - Shear Box Readings

New

Parent Group: SHBT (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text			New
*	?SPEC_DPTH	m	Specimen depth	6.50	Double	0.00	SAMP_TYPE	New
*	?SPEC_REF		Specimen reference number	2	Text			New
*	?SHBT_TESN		Shear box stage number	1	Text			New
*	?SHBS_NMIN	min	Elapsed time	12.00	Double	0.00		New
	?SHBS_SHST	kPa	Shear stress	200	Double	0.0		New
	?SHBS_HDIS	mm	Horizontal displacement	1.20	Double	0.00		New
	?SHBS_VDIS	mm	Vertical displacement	1.20	Double	0.00		New

A2.3.94 SHBT - Shear Box Testing

Parent Group: SHBG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
*	SHBT_TESN		Shear box stage number	1	Text			
	SHBT_MCI	%	Initial moisture content	20	Double	0.0		
	SHBT_MCF	%	Final moisture content	18	Double	0.0		
	SHBT_BDEN	t/m3	Bulk density	1.96	Double	0.00		
	SHBT_DDEN	t/m3	Dry density	1.63	Double	0.00		
	SHBT_IVR		Initial voids ratio	0.5	Double	0.0		
	SHBT_NORM	kPa	Shear box normal stress	100	Double	0.0		Rev
	SHBT_DISP	mm/min	Displacement rate	0.1	Double	0.0		
	SHBT_PEAK	kPa	Shear box peak shear stress	65.5	Double	0.0		Rev
	SHBT_RES	kPa	Shear box residual shear stress	47.2	Double	0.0		Rev
	SHBT_PDIS	mm	Displacement at peak shear strength	2.35	Double	0.00		
	SHBT_RDIS	mm	Displacement at residual shear strength	12.41	Double	0.00		
	SHBT_PDEN	g/cm3	Particle density. measured or, (#) assumed	2.65	Double			Del
	?SHBT_REM		Remarks on test stage	Reached end of travel	Text			

A2.3.95 ?SOLC - Soil Consistency

New

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			New
*	?SOLC_TOP	m	Depth to top of section	1.15	Double	0.00		New
	?SOLC_BASE	m	Depth to base of section	2.50	Double	0.00		New
	?SOLC_CONN		Consistency min	VS	Text		SOLC	New
	?SOLC_CONJ		Conjunction	-	Text		CONJ	New
	?SOLC_CONX		Consistency max	S	Text		SOLC	New
	?SOLC_CONF		Confidence (line type)	1	Text		CONF	New

A2.3.96 ?SOLM - Soil Moisture Condition**New**

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			<i>New</i>
*	?SOLM_TOP	m	Depth to top of section	1.15	Double	0.00		<i>New</i>
	?SOLM_BASE	m	Depth to base of section	2.50	Double	0.00		<i>New</i>
	?SOLM_MCN		Moisture condition min	D	Text		SOLM	<i>New</i>
	?SOLM_CONJ		Conjunction	becoming	Text		CONJ	<i>New</i>
	?SOLM_MCX		Moisture condition max	M	Text		SOLM	<i>New</i>
	?SOLM_CONF		Confidence (line type)	2	Text		CONF	<i>New</i>

A2.3.97 ?STCG – Cone Penetration Test General**New**

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6331/A	Text			<i>New</i>
*	?STCG_TESN		Test number	C1	Text			<i>New</i>
	?STCG_DATE	dd/mm/yyyy	Test date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?STCG_TIME	hhmm	Test time	1212	Time	hhmm		<i>New</i>
	?STCG_TYPE		Test type	C+F+S	Text		STCG_TYPE	<i>New</i>
	?STCG_REF		Cone identification reference	123ABC	Text			<i>New</i>
	?STCG_EXC		Mass and geometry of probe apparatus	40t truck	Text			<i>New</i>
	?STCG_FRED		Type of friction reducer, if used		Text			<i>New</i>
	?STCG_METH		Test method	AS 1289.6.5.1-1999	Text		METH	<i>New</i>
	?STCG_FHL		Fixed horizontal level, usually ground level or sea bed	ground level	Text			<i>New</i>
	?STCG_ORNT	deg azimuth	Orientation of biaxial inclination measurement	012	Integer	000		<i>New</i>
	?STCG_UNCR		Unusual circumstances		Text			<i>New</i>
	?STCG_CMZD		Correction method for zero drift		Text			<i>New</i>
	?STCG_MPI		Method for processing interruptions		Text			<i>New</i>
	?STCG_REM		Remark		Text			<i>New</i>
	?STCG_RATE	mm/s	Rate of penetration	20	Double	0.0		<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STCG_RINT	mm	Reading interval	20	Double	0.0		New
	?STCG_UBFC		Used back-flow compensator	True	Boolean			New
	?STCG_PED	m	Pre-drilled depth	1.25	Double	0.00		New
	?STCG_GWD	m	Groundwater depth below reference level	3.55	Double	0.00		New
	?STCG_WD	m	Water depth for offshore activities	50.45	Double	0.00		New
	?STCG_EDEP	m	End depth of penetration test	12.571	Double	0.000		New
	?STCG_TERM		Termination reason	1	Text		STCG_TERM	New
	?STCG_ZLOC		Zero location (surface, sea bottom, or bottom of borehole)	S	Text		STCG_ZLOC	New
	?STCG_ZBC	MPa	Zero before cone	1.111	Double	0.000		New
	?STCG_ZAC	MPa	Zero after cone	1.111	Double	0.000		New
	?STCG_ZBF	kPa	Zero before friction	1.111	Double	0.000		New
	?STCG_ZAF	kPa	Zero after friction	1.111	Double	0.000		New
	?STCG_ZBU1	kPa	Zero before u_1	1.111	Double	0.000		New
	?STCG_ZAU1	kPa	Zero after u_1	1.111	Double	0.000		New
	?STCG_ZBU2	kPa	Zero before u_2	1.111	Double	0.000		New
	?STCG_ZAU2	kPa	Zero after u_2	1.111	Double	0.000		New
	?STCG_ZBU3	kPa	Zero before u_3	1.111	Double	0.000		New
	?STCG_ZAU3	kPa	Zero after u_3	1.111	Double	0.000		New
	?STCG_ZBI	deg	Zero before inclination	1.111	Double	0.000		New
	?STCG_ZAI	deg	Zero after inclination	1.111	Double	0.000		New
	?STCG_ZBI1	deg	Zero before inclination 1	1.111	Double	0.000		New
	?STCG_ZAI1	deg	Zero after inclination 1	1.111	Double	0.000		New
	?STCG_ZBI2	deg	Zero before inclination 2	1.111	Double	0.000		New
	?STCG_ZAI2	deg	Zero after inclination 2	1.111	Double	0.000		New
	?STCG_CRDT	dd/mm/yyyy	Calibration date	01/01/2006	Date	dd/mm/yyyy		New
	?STCG_MILE	km	Mileage of cone	1225.111	Double	0.000		New
	?STCG_SCM1		Soil classification method 1	Robertson et al. 1986 - qt/Bq	Text		METH	New
	?STCG_SCM2		Soil classification method 2	Robertson et al. 1986 - qt/Rf	Text		METH	New
	?STCG_CONT		Contractor	ABC Contractor	Text			New
	?STCG_CREW		Operator	ABC	Text			New
	?STCG_PRBY		Processed by	ABC	Text			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STCG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?STCG_CKBY		Checked by	ABC	Text			New
	?STCG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?STCG_STAT		Test status	1	Text		STAT	New
	?STCG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New6
	?FILE_FSET		Associated file reference	F2	Text		FILE	New

A2.3.98 ?STCI – Cone Penetration Test Cone Information

New

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?STCG_REF		Cone identification reference	123ABC	Text			New
	?STCI_MSYS		Measurement system	1	Text		STCI_MSYS	New
	?STCI_MANU		Manufacturer of cone	ABC Cone Inc	Text			New
	?STCI_MOD		Manufacturer's cone model	20-ABC	Text			New
	?STCI_CPC	MPa	Cone capacity	100	Double	0.0		New
	?STCI_CPF	kPa	Friction sleeve capacity	700	Double	0.0		New
	?STCI_CPU1	kPa	Porewater pressure transducer capacity for u_1	1000	Double	0.0		New
	?STCI_CPU2	kPa	Porewater pressure transducer capacity for u_2	1000	Double	0.0		New
	?STCI_CPU3	kPa	Porewater pressure transducer capacity for u_3	1000	Double	0.0		New
	?STCI_PRC	MPa	Cone precision	0.050	Double	0.000		New
	?STCI_PRF	kPa	Friction sleeve precision	7.0	Double	0.0		New
	?STCI_PRU1	kPa	Porewater pressure transducer precision for u_1	5	Double	0.0		New
	?STCI_PRU2	kPa	Porewater pressure transducer precision for u_2	5	Double	0.0		New
	?STCI_PRU3	kPa	Porewater pressure transducer precision for u_3	5	Double	0.0		New
	?STCI_FILT		Filter and fluid description		Text			New
	?STCI_CA	mm ²	Projected area of the cone, A_c	1000	Double	0.0		New
	?STCI_CAR		Area ratio of the cone, $a = A_n / A_c$	0.65	Double	0.00		New
	?STCI_FSA	mm ²	Area of friction sleeve, A_s	15000	Double	0.0		New
	?STCI_FSAB	mm ²	Bottom end area of friction sleeve, A_{sb}	120	Double	0.0		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STCI_FSAT	mm ²	Top end area of friction sleeve, A_{st}	120	Double	0.0		New
	?STCI_FSAR		Area ratio of friction sleeve, $b = (A_{sb} - A_{st}) / A_s$	1.0	Double	0.00		New
	?STCI_DIA	mm	Cone diameter, D	35.7	Double	0.0		New
	?STCI_CANG	deg	Cone angle, α	60	Double	0.0		New
	?STCI_CFOS	mm	Cone friction sleeve offset	100	Double	0.0		New
	?STCI_REM		Remark		Memo			New
	?FILE_FSET		Associated file reference	F2	Text		FILE	New

A2.3.99 ?STCT - Cone Penetration Test

Parent Group: ?STCG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			New
*	?STCG_TESN		Test number	C1	Text			New
*	?STCT_DPTH	m	Depth of result	12.105	Double	0.000		New
	?STCT_RES	MPa	Cone resistance, q_c	20.159	Double	0.000		New
	?STCT_FRES	kPa	Unit sleeve friction resistance, f_s	100.0	Double	0.0		New
	?STCT_PWP1	kPa	Porewater pressure measured on the cone, u_1	15.0	Double	0.0		New
	?STCT_PWP2	kPa	Porewater pressure measured on behind the cone, u_2	15.0	Double	0.0		New
	?STCT_PWP3	kPa	Porewater pressure measured on behind friction sleeve, u_3	15.0	Double	0.0		New
	?STCT_SLP		Slope indicator (resultant)	5.2	Double	0.0		New
	?STCT_SLP1	deg	Slope indicator no. 1	4.1	Double	0.0		New
	?STCT_SLP2	deg	Slope indicator no. 2	6.3	Double	0.0		New
	?STCT_SECS	S	Seconds elapsed since start of test	250	Double	0.0		New
	?STCT_FRR	%	Friction ratio, $R_f = f_t / q_t \cdot 100\%$, $f_s / q_t \cdot 100\%$ or $f_s / q_c \cdot 100\%$	1.5	Double	0.0		New
	?STCT_FT	kPa	Sleeve friction corrected for pore pressure effects, $f_t = f_s - (u_2 \cdot A_{sb} - u_3 \cdot A_{st}) / A_s$ or $f_s - (u \cdot b + 0.3 \cdot \Delta u (((1 - a) / 15) - b))$	100.0	Double	0.0		New
	?STCT_FR	%	Normalised friction ratio, $F_r = f_s / (q_t - \sigma_{vo}) \cdot 100$	1.15	Double	0.00		
	?STCT_QNET	MPa	Net piezocone resistance, $q_n = q_t - \sigma_{vo}$	1.256	Double	0.000		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STCT_QT	MPa	Total piezocone resistance, $q_t = q_c + u_2 \cdot (1 - a)$	12.455	Double	0.000		New
	?STCT_QNOR		Normalised cone resistance, $Q_t = (q_t - \sigma_{vo}) / \sigma'_{vo}$	100.15	Double	0.00		New
	?STCT_BQ		Pore pressure ratio, $B_q = \Delta u / (q_t - \sigma_{vo})$	0.111	Double	0.000		New
	?STCT_DPPR		Differential pore pressure ratio, $DPPR = \Delta u / q_t$	0.111	Double	0.000		New
	?STCT_CRN		Cone Resistance Number, $N_m = (N_q - 1) / (1 + N_u \cdot B_q)$	1.5	Double	0.0		New
	?STCT_BUW	kN/m3	Bulk unit weight, γ_b	18.5	Double	0.0		New
	?STCT_PWPI	kPa	In situ pore pressure, u_o	15.1	Double	0.0		New
	?STCT_PWPE	kPa	Excess pore pressure, $\Delta u = u_2 - u_o$	15.1	Double	0.0		New
	?STCT_TOTS	kPa	In situ total vertical stress, σ_{vo}	125.5	Double	0.0		New
	?STCT_EFFS	kPa	In situ effective vertical stress, σ'_{vo}	125.5	Double	0.0		New
	?STCT_SCN1		Soil classification number 1	1	Text			New
	?STCT_SCD1		Soil classification description 1	Sensitive fine grained	Text			New
	?STCT_SCN2		Soil classification number 2	2	Text			New
	?STCT_SCD2		Soil classification description 2	Organic material	Text			New
	?STCT_SMP	%	Soil moisture	29.5	Double	0.0		New
	?STCT_CON	uS/cm	Conductivity	0.01	Double	0.00		New
	?STCT_TEMP	DegC	Temperature	10	Double	0.0		New
	?STCT_PH		pH reading	7.2	Double	0.0		New
	?STCT_REDX	mV	Redox potential reading	13.3	Double	0.0		New
	?STCT_FFD1	%	Fluorescence intensity 1	96.3	Double	0.0		New
	?STCT_FFD2	%	Fluorescence intensity 2	96.3	Double	0.0		New
	?STCT_PMT	counts/s	Photo-multiplier tube reading	26	Double	0.0		New
	?STCT_PID	uV	Photo ionization detector reading	3650	Double	0.0		New
	?STCT_FID	uV	Flame ionization detector reading	151260	Double	0.0		New
	?STCT_DECD	uV	Dry electrolytic conductivity detector	12.556	Double	0.000		New
	?STCT_MAGT	nT	Magnetic flux - Total	70.8	Double			New
	?STCT_MAGX	nT	Magnetic flux - X	55.2	Double			New
	?STCT_MAGY	nT	Magnetic flux - Y	55.2	Double			New
	?STCT_MAGZ	nT	Magnetic flux - Z	55.2	Double			New
	?STCT_NGAM	counts/s	Natural gamma radiation	13.4	Double			New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STCT_REM		Remark		Text			New

A2.3.100 ?STDG - Dissipation Test General

New

Parent Group: ?STCG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or traverse name/ number	6421/A	Text			New
*	?STCG_TESN		CPT test number	C1	Text			New
*	?STDG_DPTH	m	Depth or penetration length of dissipation test	15.250	Double	0.000		New
	?STDG_RCMP		Were the rods clamped during test?	True	Boolean			New
	?STDG_T50	s	Time to 50% dissipation, t_{50}	524	Integer	0		New
	?STDG_CH	m ² /yr	Horizontal coefficient of consolidation, c_h	0.46	Double	0.00		New
	?STDG_CV	m ² /yr	Vertical coefficient of consolidation, c_v	0.46	Double	0.00		New
	?STDG_REM		Remark		Text			New
	?FILE_FSET		Associated file reference	FS24	Text		FILE	New

A2.3.101 ?STDS - Dissipation Test

New

Parent Group: ?STDG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or traverse name/ number	6421/A	Text			New
*	?STCG_TESN		CPT test number	C1	Text			New
*	?STDG_DPTH	m	Depth or penetration length of result dissipation test	15.250	Double	0.000		New
	?STDS_SECS	s	Seconds elapsed since start of test	234.0	Double	0.0		New
	?STDS_RES	MPa	Cone resistance, q_c	0.000	Double	0.000		New
	?STDS_FRES	kPa	Unit sleeve friction resistance, f_s	0.0	Double	0.0		New
	?STDS_PWP1	kPa	Porewater pressure measured on the cone, u_1	250.1	Double	0.0		New
	?STDS_PWP2	kPa	Porewater pressure measured on behind the cone, u_2	250.2	Double	0.0		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?STDS_PWP3	kPa	Porewater pressure measured on behind friction sleeve, u ₃	250.3	Double	0.0		<i>New</i>

A2.3.102 ?SUCR - Suction Readings

New

Parent Group: SUCT (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			<i>New</i>
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		<i>New</i>
*	?SAMP_REF		Sample reference number	12	Text			<i>New</i>
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	<i>New</i>
*	?SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		<i>New</i>
*	?SPEC_REF		Specimen reference number	1	Text			<i>New</i>
*	?SUCR_SUCT	pF	Suction		Double	0.00		<i>New</i>
	?SUCR_MCD	%	Moisture content desorption	12.5	Double	0.0		<i>New</i>
	?SUCR_MCA	%	Moisture content absorption	12.5	Double	0.0		<i>New</i>
	?SUCR_MCAV	%	Moisture content average	12.5	Double	0.0		<i>New</i>
	?SUCR_REM		Remark		Text			<i>New</i>

A2.3.103 SUCT - Suction Tests

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.60	Double	0.00		
*	SPEC_REF		Specimen reference number	1	Text			
	SUCT_METH		Test method	AS 1289.2.2.1-1998	Text		METH	<i>Rev</i>
	SUCT_VAL	pF	Suction value	50	Double	0.00		<i>Rev</i>
	?SUCT_TEMP	DegC	Temperature	17.5	Double	0.0		<i>New</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?SUCT_HUMD	%	Humidity	89.2	Double	0.0		New
	?SUCT_REM		Remarks		Text			New
	?SUCT_TTBY		Tested by	ABC	Text			New
	?SUCT_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?SUCT_PRBY		Processed by	ABC	Text			New
	?SUCT_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?SUCT_CKBY		Checked by	ABC	Text			New
	?SUCT_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?SUCT_STAT		Test status	1	Text			New
	?SUCT_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?SUCT_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	?FILE_FSET		Associated file reference	F22	Text		FILE	New

A2.3.104 TNPC - Ten Per Cent Fines

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6321/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	25	Text			
*	SAMP_TYPE		Sample type	B	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.50	Double	0.00		
*	SPEC_REF		Specimen reference number	2	Text			
*	TNPC_TESN		Ten per cent fines test number	1	Text			
	TNPC_DRY	kN	10% fines values on dry aggregate	70	Double	0.0		
	TNPC_WET	kN	10% fines value on wet aggregate	60	Double	0.0		
	TNPC_REM		Notes on testing		Text			
	?TNPC_METH		Test method	BS 812-111:1990	Text		METH	New
	?TNPC_TTBY		Tested by	ABC	Text			New
	?TNPC_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?TNPC_PRBY		Processed by	ABC	Text			New
	?TNPC_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?TNPC_CKBY		Checked by	ABC	Text			<i>New</i>
	?TNPC_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		<i>New</i>
	?TNPC_STAT		Test status	1	Text		STAT	<i>New</i>
	?TNPC_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			<i>New</i>
	?TNPC_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			<i>New</i>
	FILE_FSET		Associated file reference	FS19	Text		FILE	

A2.3.105 ?TREM - Time Related Remarks

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format		Rev
*	?HOLE_ID		Exploratory hole or location equivalent	G12	Text			
*	?TREM_DATE	dd/mm/yyyy	Date of remark	16/05/2001	Date	dd/mm/yyyy		
*	?TREM_TIME	hhmmss	Time of remark	120000	Time	hhmmss		
	?TREM_REM		Time related remark	Completion of concrete pour for slab G12	Text			
	?TREM_BY		The definitive person responsible for making the remark	ABC	Text			<i>New</i>
	?FILE_FSET		Associated file reference	FS28	Text		FILE	

A2.3.106 TRIG - Triaxial Test – General

Parent Group: CLSS (1 to 1)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.80	Double	0.00		
*	SPEC_REF		Specimen reference number	3	Text			
	TRIG_TYPE		Test type	UU	Text		TRIG_TYPE	
	TRIG_COND		Sample condition	Undisturbed	Text			
	TRIG_REM		Additional information, failure criteria		Text			<i>Rev</i>

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	TRIG_CU	kPa	Value of undrained shear strength	75	Double	0.0		Rev
	TRIG_COH	kPa	Cohesion intercept associated with TRIG_PHI	2	Double	0.0		Rev
	TRIG_PHI	deg	Angle of friction for effective shear strength triaxial test	32	Double	0.0		
	?TRIG_TEXC		Texas classification number	1	Text			New
	?TRIG_MOD	MPa	Average compressive modulus	1.1	Double	0.0		New
	?TRIG_19Ø	%	Mass percent retained on 19.0 mm sieve	12.1	Double	0.0		New
	?TRIG_375	%	Mass percent retained on 37.5 mm sieve	5.1	Double	0.0		New
	?TRIG_PNC		Preconditioning Number of cycles, for Er test	300	Integer	0		New
	?TRIG_PS1	kPa	Preconditioning sigma 1 stress	200.1	Double	0.0		New
	?TRIG_PS3	kPa	Preconditioning cell pressure / sigma 3 stress	200.0	Double	0.0		New
	?TRIG_METH		Test method	AS 1289.6.4.2-1998	Text		METH	New
	?TRIG_TTBY		Tested by	ABC	Text			New
	?TRIG_DATE	dd/mm/yyyy	Date tested	01/01/2006	Date	dd/mm/yyyy		New
	?TRIG_PRBY		Processed by	ABC	Text			New
	?TRIG_PRDT	dd/mm/yyyy	Processed date	01/01/2006	Date	dd/mm/yyyy		New
	?TRIG_CKBY		Checked by	ABC	Text			New
	?TRIG_CKDT	dd/mm/yyyy	Checked date	01/01/2006	Date	dd/mm/yyyy		New
	?TRIG_STAT		Test status	1	Text		STAT	New
	?TRIG_LAB		Name of testing laboratory/organisation	ABC Soil Testing	Text			New
	?TRIG_CRED		Accrediting body and reference number (when appropriate)	NATA 12345	Text			New
	FILE_FSET		Associated file reference	FS7	Text		FILE	

A2.3.107 ?TRIR - Triaxial Readings

New

Parent Group: TRIX (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			New
*	?SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		New
*	?SAMP_REF		Sample reference number	12	Text			New
*	?SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	New

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	?SPEC_DPTH	m	Specimen depth	6.80	Double	0.00		New
*	?SPEC_REF		Specimen reference number	3	Text			New
*	?TRIX_TESN		Triaxial test/stage/cycle number	1	Text			New
*	?TRIR_DEVN	kPa	Total deviator stress	100	Double	0.0		New
	?TRIR_CELL	kPa	Total cell pressure	75	Double	0.0		New
	?TRIR_ASTN	%	Axial strain	1.12	Double	0.00		New
	?TRIR_VSTN	%	Volumetric strain	1.12	Double	0.00		New
	?TRIR_PWP	kPa	Pore water pressure	200.1	Double	0.0		New

A2.3.108 TRIX - Triaxial Test

Parent Group: TRIG (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6431/A	Text			
*	SAMP_TOP	m	Depth to top of test sample	6.50	Double	0.00		
*	SAMP_REF		Sample reference number	12	Text			
*	SAMP_TYPE		Sample type	U	Text		SAMP_TYPE	
*	SPEC_DPTH	m	Specimen depth	6.80	Double	0.00		
*	SPEC_REF		Specimen reference number	3	Text			
*	TRIX_TESN		Triaxial test/stage number	1	Text			
	TRIX_SDIA	mm	Specimen diameter	38	Double	0.0		
	TRIX_MC	%	Specimen initial moisture content	15	Double	0.0		
	TRIX_CELL	kPa	Total cell pressure	100	Double	0.0		Rev
	TRIX_DEVF	kPa	Deviator stress at failure	360	Double	0.0		Rev
	TRIX_SLEN	mm	Sample length	76	Double	0.0		
	TRIX_BDEN	t/m3	Initial bulk density	2.12	Double	0.00		Rev
	TRIX_DDEN	t/m3	Initial dry density	1.84	Double	0.00		Rev
	TRIX_PWPI	kPa	Porewater pressure at start of shear stage	50	Double	0.0		Rev
	TRIX_PWPF	kPa	Porewater pressure at failure	60	Double	0.0		Rev
	?TRIX_CU	kPa	Value of undrained shear strength	60	Double	0.0		Rev
	TRIX_STRN	%	Strain at failure	9	Double	0.00		
	TRIX_MODE		Mode of failure	Brittle, plastic	Text			

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
	?TRIX_RSTN	%/min	Rate of strain	1.1	Double	0.00		<i>New</i>
	?TRIX_MODR	MPa	Average resilient modulus	1.22	Double	0.00		<i>New</i>
	?TRIX_LMR	%	Lab moisture ratio when compacted	95.0	Double	0.0		<i>New</i>
	?TRIX_LDR	%	Lab density ratio when compacted	95.0	Double	0.0		<i>New</i>
	?TRIX_TCMP		Compaction method	AS 1289.5.1.1-2003	Text		METH	<i>New</i>
	?TRIX_SIG1	kPa	Sigma 1, vertical stress	250	Double	0.0		<i>New</i>
	?TRIX_REM		Remark		Text			<i>New</i>

A2.3.109 UNIT - Definition of <UNITS> and CNMT_UNIT

Parent Group: None

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	UNIT_UNIT		Unit used	ohm-cm	Text			
	UNIT_DESC		Description	Ohm centimetres	Text			

A2.3.110 WETH - Weathering Grades

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	WETH_TOP	m	Depth to top of weathering subdivision	3.50	Double	0.00		
*	WETH_BASE	m	Depth to base of weathering subdivision	3.95	Double	0.00		
	WETH_GRAD		Material weathering grade	IV				<i>Del</i>
	?WETH_GRDN		Minimum material weathering grade	SW	Text		WETH_GRAD	<i>New</i>
	?WETH_CONJ		Conjunction	to	Text		CONJ	<i>New</i>
	?WETH_GRDX		Maximum material weathering grade	F	Text		WETH_GRAD	<i>New</i>
	?WETH_CONF		Confidence (line type)	1	Text		CONF	<i>New</i>
	WETH_REM		Remarks, weathering system used		Text			

A2.3.111 WSTK - Water Strike Details

Parent Group: HOLE (1 to many)

Status	Heading	Unit	Description	Example	Type	Format	Pick List	Rev
*	HOLE_ID		Exploratory hole or location equivalent	6421/A	Text			
*	WSTK_DEP	m	Depth to water strike	17.20	Double	0.00		
*	WSTK_NMIN	min	Minutes after strike	20	Integer	0		
	WSTK_CAS	m	Casing depth at time of water strike	15.70	Double	0.00		
	WSTK_DATE	dd/mm/yyyy	Date of water strike	19/03/1991	Date	dd/mm/yyyy		
	WSTK_TIME	hhmm	Time of water strike	1640	Time	hhmm		
	WSTK_POST	m	Depth to water after WSTK_NMIN minutes	10.23	Double	0.00		
	WSTK_FLOW		Flow rate remarks	Steady flow of water into hole	Text			
	WSTK_SEAL	m	Depth at which water strike sealed by casing	19.10	Double	0.00		

A2.4. Definition of Seismic Refraction Section File

The section line shall be defined on the HOLE group, with HOLE_TYPE = SRAL

The section shall be a straight line in plan, defined by two end points in the headings:

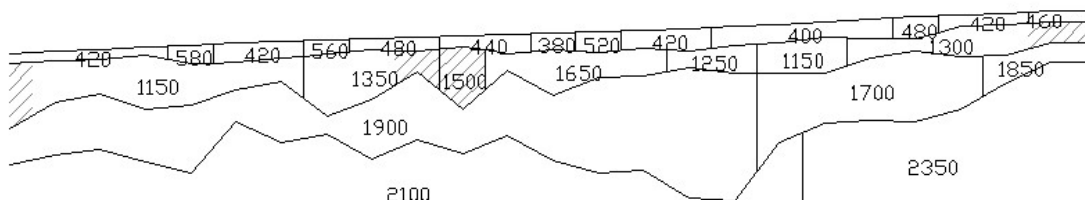
- HOLE_LOCX, HOLE_LOCY, HOLE_LOCZ (beginning of line)
- ?HOLE_XTRL, ?HOLE_YTRL, ?HOLE_ZTRL (end of line)

Other HOLE group data shall be provided at the discretion of the data generator.

The DXF file shall be listed as a file reference.

The section file shall be provided in the following format:

- DXF release 12 file
- The y axis as elevation
- The x axis as distance along the line



LEGEND

Existing surface level on seismic line

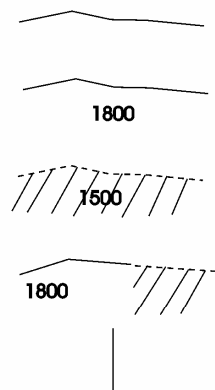
Seismic velocity (m/s) and interpreted refractor boundary based on reciprocal method minus times and time depths

Seismic velocity (m/s) and interpreted refractor boundary based on limited data*

Hatched area where seismic velocity (m/s) is based on limited data* and the value is the same as the adjacement minus times velocity

Lateral seismic velocity boundary

NB- * Limited data includes harmonic mean velocity, interpolated time depth or edited data



A2.5. ABBR - Abbreviations Definitions

Most ABBR records are new; the revisions are not defined in this section.

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
BKFL_LEG	BENTBKFL	Bentonite	
BKFL_LEG	BITUBKFL	Bituminous material	
BKFL_LEG	CONCBKFL	Concrete	
BKFL_LEG	CUTTBKFL	Cuttings backfill	
BKFL_LEG	GRAVBKFL	Gravel backfill	
BKFL_LEG	GROUBKFL	Grout	
BKFL_LEG	SANDBKFL	Sand backfill	
CBRP_END	BOT	Bottom	
CBRP_END	TOP	Top	
CDIA_HOLE	AW	AW Casing	
CDIA_HOLE	BW	BW Casing	
CDIA_HOLE	HQ	HQ Casing	
CDIA_HOLE	HW	HW Casing	
CDIA_HOLE	NW	NW Casing	
CDIA_HOLE	PVC	PVC Casing	
CDIA_HOLE	PVC150	150 mm PVC	
CDIA_HOLE	PW	PW Casing	
CLSS	CH	High Plasticity CLAY	
CLSS	CH-MH	High Plasticity CLAY to High Plasticity SILT	
CLSS	CH-OH	High Plasticity CLAY to High Plasticity ORGANIC CLAYS and SILTS	
CLSS	CI	Medium Plasticity CLAY	
CLSS	CI-CH	Medium to High Plasticity CLAY	
CLSS	CI-ML	Medium Plasticity CLAY to Low Plasticity SILT	
CLSS	CI-OL	Medium Plasticity CLAY to Low Plasticity ORGANIC CLAYS and SILTS	
CLSS	CL	Low Plasticity CLAY	
CLSS	CL-CI	Low to Medium Plasticity CLAY	
CLSS	CL-ML	Low Plasticity CLAY to Low Plasticity SILT	
CLSS	CL-OL	Low Plasticity CLAY to Low Plasticity ORGANIC CLAYS and SILTS	
CLSS	GC	Clayey GRAVEL	
CLSS	GC-GM	Clayey GRAVEL to Silty GRAVEL	
CLSS	GM	Silty GRAVEL	
CLSS	GP	Poorly Graded GRAVEL	
CLSS	GP-GC	Poorly Graded GRAVEL to Clayey GRAVEL	
CLSS	GP-GM	Poorly Graded GRAVEL to Silty GRAVEL	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
CLSS	GW	Well Graded GRAVEL	
CLSS	GW-GC	Well Graded GRAVEL to Clayey GRAVEL	
CLSS	GW-GM	Well Graded GRAVEL to Silty GRAVEL	
CLSS	MH	High Plasticity SILT	
CLSS	MH-OH	High Plasticity SILT to High Plasticity ORGANIC CLAYS and SILTS	
CLSS	ML	Low Plasticity SILT	
CLSS	ML-OL	Low Plasticity SILT to Low Plasticity ORGANIC CLAYS and SILTS	
CLSS	OH	High Plasticity ORGANIC CLAYS and SILTS	
CLSS	OL	Low Plasticity ORGANIC CLAYS and SILTS	
CLSS	Pt	PEAT	
CLSS	SC	Clayey SAND	
CLSS	SC-SM	Clayey SAND to Silty SAND	
CLSS	SM	Silty SAND	
CLSS	SP	Poorly Graded SAND	
CLSS	SP-SC	Poorly Graded SAND to Clayey SAND	
CLSS	SP-SM	Poorly Graded SAND to Silty SAND	
CLSS	SW	Well Graded SAND	
CLSS	SW-SC	Well Graded SAND to Clayey SAND	
CLSS	SW-SM	Well Graded SAND to Silty SAND	
CMPE	Modified	Modified Effort	
CMPE	Reduced	Reduced Effort	
CMPE	Standard	Standard Effort	
CMPG_MOLD	CBR	CBR	
CMPG_MOLD	Mould A	Mould A	
CMPG_MOLD	Mould B	Mould B	
CMPG_MOLD	Standard	Standard	
CMPG_TYPE	2.5kg	2.5 kg	
CMPG_TYPE	4.5kg	4.5 kg	
CMPG_TYPE	Modified	Modified	
CMPG_TYPE	Standard	Standard	
CMPG_TYPE	Vibro	Vibro	
CNMT_TTYP	GAS	Gas	
CNMT_TTYP	LEACHATE	Leachate	
CNMT_TTYP	LEACHATE DISS	Leachate (Dissolved)	
CNMT_TTYP	LEACHATE_FREE	Leachate (Free)	
CNMT_TTYP	LEACHATE_TOT	Leachate (Total)	
CNMT_TTYP	LIQUID	Liquid	
CNMT_TTYP	SOLID	Solid	
CNMT_TTYP	SOLID_11WAT	Solid (1:1 Soil/Water extract)	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
CNMT_TTYP	SOLID_21WAT	Solid (2:1 Soil/Water extract)	
CNMT_TTYP	SOLID_21WAT_DW105	Solid (2:1 water extract), corrected to dry weight at 105 DegC	
CNMT_TTYP	SOLID_ACID	Solid (Acid extract)	
CNMT_TTYP	SOLID_AVAIL	Solid (Available)	
CNMT_TTYP	SOLID_DRY	Solid (Dry weight)	
CNMT_TTYP	SOLID_DW105	Solid, corrected to dry weight at 105 DegC	
CNMT_TTYP	SOLID_EDTA	Solid (EDTA extract)	
CNMT_TTYP	SOLID_FREE	Solid (Free)	
CNMT_TTYP	SOLID_FREE_DW105	Solid (Free), corrected to dry weight at 105 DegC	
CNMT_TTYP	SOLID_PRES	Solid (Presence of)	
CNMT_TTYP	SOLID_TOT	Solid (Total)	
CNMT_TTYP	SOLID_TOT_DW105	Solid (Total), corrected to dry weight at 105 DegC	
CNMT_TTYP	SOLID_WAT	Solid (Water extract)	
CNMT_TTYP	WATER	Water	
CNMT_TTYP	WATER_ACIDHY	Water (Acid hydrolysable)	
CNMT_TTYP	WATER DISS	Water (Dissolved)	
CNMT_TTYP	WATER_ELEM	Water (Elemental)	
CNMT_TTYP	WATER_FREE	Water (Free)	
CNMT_TTYP	WATER_ORG	Water (Organic)	
CNMT_TTYP	WATER_PRES	Water (Presence of)	
CNMT_TTYP	WATER_SOLRE	Water (Soluble reactive)	
CNMT_TTYP	WATER_TOT	Water (Total)	
CONF	0	Solid - well defined boundary	
CONF	1	Dash - grading boundary	
CONF	2	Dot - poorly defined boundary	
CONJ	-	-	
CONJ	,	,	New 6
CONJ	/	/	
CONJ	and	and	
CONJ	becoming	becoming	
CONJ	mottled	mottled	
CONJ	or	or	New 6
CONJ	possibly	possibly	New 6
CONJ	speckled	speckled	
CONJ	spotted	spotted	
CONJ	streaked	streaked	
CONJ	to	to	
CONJ	with	with	
DICT_STAT	COMMON	COMMON	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
DICT_STAT	KEY	KEY	
DICT_TYPE	GROUP	GROUP	
DICT_TYPE	HEADING	HEADING	
DISC_APOB	CN	Clean	
DISC_APOB	CT	Coating (≥ 1 mm)	
DISC_APOB	FILLED	Filled	
DISC_APOB	SN	Stain	
DISC_APOB	VR	Veneer (< 1 mm)	
DISC_INFM	CA	calcite	
DISC_INFM	Clay	clay	
DISC_INFM	Fe	iron oxide	
DISC_INFM	Fe Clay	iron oxide clay	
DISC_INFM	KT	chlorite	
DISC_INFM	MS	secondary mineral	
DISC_INFM	MU	unidentified mineral	
DISC_INFM	Qz	quartz	
DISC_INFM	X	carbonaceous	
DISC_PLAN	CU	curved	
DISC_PLAN	DIS	discontinuous	
DISC_PLAN	IR	Irregular	
DISC_PLAN	PR	planar	
DISC_PLAN	ST	stepped	
DISC_PLAN	UN	undulose	
DISC_RGH	POL	polished	
DISC_RGH	RF	rough	
DISC_RGH	S	smooth	
DISC_RGH	SL	slickensided	
DISC_RGH	VR	very rough	
DISC_RGHC	I	rough or irregular, stepped	
DISC_RGHC	II	smooth, stepped	
DISC_RGHC	III	slickensided, stepped	
DISC_RGHC	IV	rough or irregular, undulating	
DISC_RGHC	IX	slickensided, planar	
DISC_RGHC	V	smooth, undulating	
DISC_RGHC	VI	slickensided, undulating	
DISC_RGHC	VII	rough or irregular, planar	
DISC_RGHC	VIII	smooth, planar	
DISC_TERM	D	terminates against another discontinuity	
DISC_TERM	R	terminates within rock	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
DISC_TERM	X	extends beyond exposure	
DISC_TYPE	BP	bedding parting	
DISC_TYPE	CL	cleavage	
DISC_TYPE	CO	contact	
DISC_TYPE	CS	crushed seam	
DISC_TYPE	CZ	crushed zone	
DISC_TYPE	DB	drilling break	
DISC_TYPE	DK	dyke	
DISC_TYPE	DL	drill lift	
DISC_TYPE	DZ	decomposed zone	
DISC_TYPE	FC	fracture	
DISC_TYPE	FL	foliation	
DISC_TYPE	FZ	fracture zone	
DISC_TYPE	HB	handling break	
DISC_TYPE	IS	infilled seam	
DISC_TYPE	JT	joint	
DISC_TYPE	SH	schistosity	
DISC_TYPE	SI	sill	
DISC_TYPE	SM	seam	
DISC_TYPE	SS	shear seam	
DISC_TYPE	SZ	shear zone	
DISC_TYPE	VN	vein	
DISC_TYPE	VO	void	
DPRG_TYPE	DCP9	9 kg dynamic cone penetrometer	
DPRG_TYPE	PSP	Perth sand penetrometer	
LEMC_LEMC	Class 1	Class 1	
LEMC_LEMC	Class 2	Class 2	
LEMC_LEMC	Class 3	Class 3	
LEMC_LEMC	Class 4	Class 4	
LEMC_LEMC	Class 5	Class 5	
LEMC_LEMC	Class 6	Class 6	
LEMC_LEMC	Class 7	Class 7	
LEMC_LEMC	Class 8	Class 8	
FILE_DOCT	CAL	Calibration data	
FILE_DOCT	CR	Construction record	
FILE_DOCT	DRAW	Drawing	
FILE_DOCT	GEN	General	
FILE_DOCT	MS	Method statement	
FILE_DOCT	PH	Photograph	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
FILE_DOCT	RAW	Raw data	
FILE_DOCT	REP	Report	
FILE_DOCT	TECH	Technical paper	
FILE_DOCT	VI	Video clip	
FLSH_TYPE	Air	Air	
FLSH_TYPE	Bentonite	Bentonite	
FLSH_TYPE	Lubricant	Lubricant	
FLSH_TYPE	Polymer	Polymer	
FLSH_TYPE	Water	Water	
GEOL_BGS		<p>The list is too large to include in this document. The list consists of map name and map units for NSW provided by the Geological Survey of New South Wales. This list will be provided in a gINT Library file (Access format file).</p> <p>E.g. Cbga_goba - Bathurst Granite</p> <p>Where "Cbga" is the letter symbol and "goba" is the map name</p>	
GEOL_LEG	AGGLOMERATE	AGGLOMERATE	New6
GEOL_LEG	ANDESITE	ANDESITE, TRACHYTE, LATITE, TRACHYANDESITE	
GEOL_LEG	ANHYDRITE	ANHYDRITE	
GEOL_LEG	APLITE	APLITE	
GEOL_LEG	ARGILLITE	ARGILLITE, ARGILLACEOUS LIMESTONE	
GEOL_LEG	ARKOSE	ARKOSE	New6
GEOL_LEG	ASPHALTIC CONCRETE	Asphaltic Concrete	New6
GEOL_LEG	B	With Cobbles and Boulders	
GEOL_LEG	BASALT	BASALT	
GEOL_LEG	BASALTIC AGGLOMERATE	BASALTIC AGGLOMERATE	
GEOL_LEG	BB	BOULDERS, COBBLES	
GEOL_LEG	BRECCIA	BRECCIA	
GEOL_LEG	BRECCIATED	Brecciated	
GEOL_LEG	C	Clayey	
GEOL_LEG	CALCARENITE	CALCARENITE	New6
GEOL_LEG	CALCAREOUS	Calcareous	
GEOL_LEG	CALCILUTITE	CALCILUTITE	New6
GEOL_LEG	CALCIRUDITE	CALCIRUDITE	New6
GEOL_LEG	CALCISILTITE	CALCISILTITE	New6
GEOL_LEG	CARBONACEOUS	Carbonaceous	
GEOL_LEG	CH	CH - High Plasticity CLAY	
GEOL_LEG	CHALK	CHALK	
GEOL_LEG	CHERT	CHERT	New6
GEOL_LEG	CHERTY	CHERTY	
GEOL_LEG	CHERTY LIMESTONE	CHERTY LIMESTONE	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GEOL_LEG	CH-MH	CH-MH - High Plasticity CLAY to High Plasticity SILT	
GEOL_LEG	CH-OH	CH-OH - High Plasticity CLAY to High Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	CI	CI - Medium Plasticity CLAY	
GEOL_LEG	CI-CH	CI-CH - Medium to High Plasticity CLAY	
GEOL_LEG	CI-ML	CI-ML - Medium Plasticity CLAY to Low Plasticity SILT	
GEOL_LEG	CI-OL	CI-OL - Medium Plasticity CLAY to Low Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	CL	CL - Low Plasticity CLAY	
GEOL_LEG	CLAYSTONE	CLAYSTONE	
GEOL_LEG	CL-CI	CL-CI - Low to Medium Plasticity CLAY	
GEOL_LEG	CL-ML	CL-ML - Low Plasticity CLAY to Low Plasticity SILT	
GEOL_LEG	CL-OL	CL-OL - Low Plasticity CLAY to Low Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	COAL	COAL	
GEOL_LEG	COAL LIGNITE	COAL LIGNITE	New6
GEOL_LEG	CONCRETE	CONCRETE	
GEOL_LEG	CONGLOMERATE	CONGLOMERATE	
GEOL_LEG	CORAL	CORAL	
GEOL_LEG	CORE LOSS	CORE LOSS	
GEOL_LEG	CRUSHED SANDSTONE	CRUSHED SANDSTONE	
GEOL_LEG	DACITE	DACITE, RHYOLITE	
GEOL_LEG	DIORITE	DIORITE, SYNITE	
GEOL_LEG	DOLERITE	DOLERITE	New6
GEOL_LEG	DOLOMITE	DOLOMITE	
GEOL_LEG	DOLOMITIC LIMESTONE	DOLOMITIC LIMESTONE	
GEOL_LEG	FERRICRETE	FERRICRETE	New6
GEOL_LEG	FERRUGINOUS	Ferruginous, iron stained	
GEOL_LEG	FILL	FILL	
GEOL_LEG	FOSSILS	FOSSILS	
GEOL_LEG	G	Gravelly	
GEOL_LEG	GABBRO	GABBRO	
GEOL_LEG	GC	GC - Clayey GRAVEL	
GEOL_LEG	GC-GM	GC-GM - Clayey GRAVEL to Silty GRAVEL	
GEOL_LEG	GM	GM - Silty GRAVEL	
GEOL_LEG	GNEISS	GNEISS	
GEOL_LEG	GP	GP - Poorly Graded GRAVEL	
GEOL_LEG	GP-GC	GP-GC - Poorly Graded GRAVEL to Clayey GRAVEL	
GEOL_LEG	GP-GM	GP-GM - Poorly Graded GRAVEL to Silty GRAVEL	
GEOL_LEG	GRANITE	GRANITE	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GEOL_LEG	GRANULITE	GRANULITE	New6
GEOL_LEG	GREYWACKE	GREYWACKE	New6
GEOL_LEG	GW	GW - Well Graded GRAVEL	
GEOL_LEG	GW-GC	GW-GC - Well Graded GRAVEL to Clayey GRAVEL	
GEOL_LEG	GW-GM	GW-GM - Well Graded GRAVEL to Silty GRAVEL	
GEOL_LEG	GYPSUM	GYPSUM	
GEOL_LEG	HALITE	HALITE	
GEOL_LEG	HORNFELS	Hornfels	
GEOL_LEG	IGNUMBRITE	IGNUMBRITE	New6
GEOL_LEG	INTERBEDDED MUDSTONE & SANDSTONE	INTERBEDDED MUDSTONE & SANDSTONE	
GEOL_LEG	INTERBEDDED MUDSTONE & SILTSTONE	INTERBEDDED MUDSTONE & SILTSTONE	
GEOL_LEG	INTERBEDDED SILTSTONE & SANDSTONE	INTERBEDDED SILTSTONE & SANDSTONE	
GEOL_LEG	IRONSTONE	IRONSTONE	
GEOL_LEG	LENSES	LENSES	
GEOL_LEG	LENSES SANDSTONE	LENSES - SANDSTONE	
GEOL_LEG	LENSES SILTSTONE	LENSES - SILTSTONE	
GEOL_LEG	LIGNITE	LIGNITE	New6
GEOL_LEG	LIMESTONE	LIMESTONE	
GEOL_LEG	M	Silty	
GEOL_LEG	MARBLE	MARBLE	New6
GEOL_LEG	META LIMESTONE	METAMORPHOSED LIMESTONE	
GEOL_LEG	METAMORPHIC	Metamorphic rocks - Regional (Amphibolite, Magnesite, Tremolite)	
GEOL_LEG	METAMORPHIC CONTACT	Metamorphic Rocks - Contact	
GEOL_LEG	METASEDIMENTS	METASEDIMENTS	
GEOL_LEG	MH	MH - High Plasticity SILT	
GEOL_LEG	MH-OH	MH-OH - High Plasticity SILT to High Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	MICRODORITE	MICRODORITE, SYNITE (PORPHRITE, PORPHYRY)	
GEOL_LEG	MICROGABBRO	MICROGABBRO (DOLERITE)	
GEOL_LEG	MICROGRANITE	MICROGRANITE (GRANITE PORPHYRY, FELSITE)	
GEOL_LEG	MIGMATITE	MIGMATITE	
GEOL_LEG	ML	ML - Low Plasticity SILT	
GEOL_LEG	ML-OL	ML-OL - Low Plasticity SILT to Low Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	MUDSTONE	MUDSTONE	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GEOL_LEG	MUDSTONE & SILTSTONE	MUDSTONE & SILTSTONE	
GEOL_LEG	O	Organic	
GEOL_LEG	OH	OH - High Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	OL	OL - Low Plasticity ORGANIC CLAYS and SILTS	
GEOL_LEG	OOLITIC	OOLITIC	
GEOL_LEG	PERIDOTITE	PERIDOTITE	
GEOL_LEG	PHOSPHATIC	Phosphatic	
GEOL_LEG	PHYLLITE	PHYLLITE	
GEOL_LEG	PT	Pt - PEAT	
GEOL_LEG	QUARTZ	Quartz	
GEOL_LEG	QUARTZITE	QUARTZITE	
GEOL_LEG	RHYOLITE	RHYOLITE	New6
GEOL_LEG	ROOTS	ROOTS	
GEOL_LEG	S	Sandy	
GEOL_LEG	SAND SOME	Some/scattered Sand	
GEOL_LEG	SANDSTONE	SANDSTONE	
GEOL_LEG	SC	SC - Clayey SAND	
GEOL_LEG	SCHIST	SCHIST	
GEOL_LEG	SC-SM	SC-SM - Clayey SAND to Silty SAND	
GEOL_LEG	SERPENTINE	SERPENTINE, ECLOGITE	
GEOL_LEG	SHALE	SHALE	
GEOL_LEG	SHALEY	SHALEY	
GEOL_LEG	SHELLS	SHELLS	
GEOL_LEG	SILICEOUS	Siliceous	
GEOL_LEG	SILTSTONE	SILTSTONE	
GEOL_LEG	SILTSTONE & SANDSTONE	SILTSTONE & SANDSTONE	
GEOL_LEG	SLATE	SLATE	
GEOL_LEG	SM	SM - Silty SAND	
GEOL_LEG	SP	SP - Poorly Graded SAND	
GEOL_LEG	SP-SC	SP-SC - Poorly Graded SAND to Clayey SAND	
GEOL_LEG	SP-SM	SP-SM - Poorly Graded SAND to Silty SAND	
GEOL_LEG	SW	SW - Well Graded SAND	
GEOL_LEG	SW B	SW - Well Graded SAND with cobbles and boulders	
GEOL_LEG	SW-SC	SW-SC - Well Graded SAND to Clayey SAND	
GEOL_LEG	SW-SM	SW-SM - Well Graded SAND to Silty SAND	
GEOL_LEG	SYENITE	SYENITE	New6
GEOL_LEG	TALUS	TALUS	
GEOL_LEG	TUFF	TUFF, WELDED TUFF, IGNUMBRITE	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GEOL_LEG	TUFFACEOUS	Tuffaceous	
GEOL_LEG	VOLCANIC	Volcanic	
GEOL_LEG	VOLCANIC BRECCIA	VOLCANIC BRECCIA	New6
GEOL_LEG	VOLCANIC GLASS	VOLCANIC GLASS	New6
GEOL_LEG	WELDED TUFF	WELDED TUFF	New6
GEOL_LEG	WOOD	WOOD	New6
GEOL_ORG	AEO	aeolian deposits	Rev6
GEOL_ORG	ALV	alluvium	Rev6
GEOL_ORG	ALV/RS	alluvium or residual soil	Del6
GEOL_ORG	BC	basecourse	New6
GEOL_ORG	BRK	bedrock	Rev6
GEOL_ORG	COL	colluvium	Rev6
GEOL_ORG	EST	estuarine deposits	Rev6
GEOL_ORG	F	fill	Rev6
GEOL_ORG	LAC	lacustrine deposits	Rev6
GEOL_ORG	MAR	marine deposits	Rev6
GEOL_ORG	PT	peat	Rev6
GEOL_ORG	RF	refuse	Rev6
GEOL_ORG	RK	rock	Rev6
GEOL_ORG	RD	road surface	New6
GEOL_ORG	RS	residual soil	Rev6
GEOL_ORG	RS/BRK	residual soil/bedrock	Del6
GEOL_ORG	RS/RK	residual soil/rock	Del6
GEOL_ORG	RT	river terrace	Rev6
GEOL_ORG	SBC	sub-basecourse	New6
GEOL_ORG	SW	slope wash	Rev6
GEOL_ORG	T	topsoil	Rev6
GO_C	-	-	New6
GO_C	,	,	New6
GO_C	.	.	New6
GO_C	/	/	New6
GO_C	and	and	New6
GO_C	becoming	becoming	New6
GO_C	beds	beds	New6
GO_C	black	black	
GO_C	blue	blue	
GO_C	brown	brown	
GO_C	cream	cream	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GO_C	dark	dark	New6
GO_C	green	green	
GO_C	grey	grey	
GO_C	in	in	New6
GO_C	mottled	mottled	New6
GO_C	of	of	New6
GO_C	off	off	New6
GO_C	olive	olive	
GO_C	or	or	New6
GO_C	orange	orange	
GO_C	pale	pale	New6
GO_C	patches	patches	New6
GO_C	pink	pink	
GO_C	places	places	New6
GO_C	possibly	possibly	New6
GO_C	red	red	
GO_C	purple	purple	New6
GO_C	some	some	New6
GO_C	to	to	New6
GO_C	very	very	New6
GO_C	white	white	
GO_C	with	with	New6
GO_C	yellow	yellow	
GO_C	zones	zones	New6
GO_CQ	dark	dark	Del6
GO_CQ	mottled	mottled	Del6
GO_CQ	off	off	Del6
GO_CQ	pale	pale	Del6
GO_CQ	some	some	Del6
GO_CQ	very dark	very dark	Del6
GO_CQ	very pale	very pale	Del6
GOR_FAB	layered	layered	
GOR_FAB	massive	massive	
GOR_NAM	agglomerate	agglomerate	
GOR_NAM	amphibolite	amphibolite	Del6
GOR_NAM	andesite	andesite	
GOR_NAM	anhydrite	anhydrite	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GOR_NAM	arkose	arkose	
GOR_NAM	aplite	aplite	New6
GOR_NAM	basalt	basalt	
GOR_NAM	breccia	breccia	
GOR_NAM	calcarenite	calcarenite	
GOR_NAM	calcilutite	calcilutite	
GOR_NAM	calcirudite	calcirudite	
GOR_NAM	calcisiltite	calcisiltite	
GOR_NAM	chalk	chalk	
GOR_NAM	chert	chert	
GOR_NAM	claystone	claystone	
GOR_NAM	coal	coal	
GOR_NAM	coal lignite	coal lignite	
GOR_NAM	conglomerate	conglomerate	
GOR_NAM	diorite	diorite	
GOR_NAM	dolerite	dolerite	
GOR_NAM	dolomite	dolomite	
GOR_NAM	ferricrete	ferricrete	
GOR_NAM	flint	flint	Del6
GOR_NAM	gabbro	gabbro	
GOR_NAM	gneiss	gneiss	
GOR_NAM	granite	granite	
GOR_NAM	granulite	granulite	
GOR_NAM	greywacke	greywacke	
GOR_NAM	gypsum	gypsum	
GOR_NAM	halite	halite	
GOR_NAM	hornfels	hornfels	
GOR_NAM	ignimbrite	ignimbrite	
GOR_NAM	ironstone	ironstone	
GOR_NAM	lignite	lignite	
GOR_NAM	limestone	limestone	
GOR_NAM	marble	marble	
GOR_NAM	microdiorite	microdiorite	
GOR_NAM	microgranite	microgranite	
GOR_NAM	migmatite	migmatite	
GOR_NAM	mudstone	mudstone	
GOR_NAM	mylonite	mylonite	Del6
GOR_NAM	obsidian	obsidian	Del6
GOR_NAM	peridotite	peridotite	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GOR_NAM	phyllite	phyllite	
GOR_NAM	pyroxenite	pyroxenite	Del6
GOR_NAM	quartzite	quartzite	
GOR_NAM	rhyolite	rhyolite	
GOR_NAM	saline rocks	saline rocks	Del6
GOR_NAM	sandstone	sandstone	
GOR_NAM	schist	schist	
GOR_NAM	serpentine	serpentine	
GOR_NAM	shale	shale	
GOR_NAM	siltstone	siltstone	
GOR_NAM	slate	slate	
GOR_NAM	syenite	syenite	New6
GOR_NAM	tuff	tuff	
GOR_NAM	volcanic breccia	volcanic breccia	
GOR_NAM	volcanic glass	volcanic glass	
GOR_NAM	welded tuff	welded tuff	
GOR_NAQ	argillaceous	argillaceous	
GOR_NAQ	calcareous	calcareous	
GOR_NAQ	calcareous clayey	calcareous clayey	
GOR_NAQ	carbonaceous	carbonaceous	
GOR_NAQ	clastic	clastic	
GOR_NAQ	coal and carbonaceous	coal and carbonaceous	
GOR_NAQ	conglomeratic	conglomeratic	
GOR_NAQ	crystalline	crystalline	
GOR_NAQ	lithic	lithic	
GOR_NAQ	meta	meta	
GOR_NAQ	sandy	sandy	
GOR_NAQ	siliceous	siliceous	
GOR_NAQ	siliceous detrital	siliceous detrital	
GOR_NAQ	silty	silty	
GOR_NAQ	tuffaceous	tuffaceous	
GOR_NCQ	interbedded	interbedded	
GOR_S	coarse	0.6 mm - 2 mm	
GOR_S	fine	0.06 mm - 0.2 mm	
GOR_S	medium	0.2 mm - 0.6 mm	
GOR_TEX	amorphous	amorphous	
GOR_TEX	cryptocrystalline	cryptocrystalline	
GOR_TEX	crystalline	crystalline	
GOR_TEX	flow banded	flow banded	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GOR_TEX	glassy	glassy	
GOR_TEX	layered	layered	
GOR_TEX	porphyritic	porphyritic	
GOR_TEX	porphyroblastic	porphyroblastic	
GOR_TEX	vesicular	vesicular	
GOR_TEX	vuggy	vuggy	
GOS_H	angular	angular	
GOS_H	elongated	elongated	
GOS_H	platy	platy	
GOS_H	platy and elongated	platy and elongated	
GOS_H	rounded	rounded	
GOS_H	rounded to angular	rounded to angular	
GOS_H	rounded to sub-angular	rounded to sub-angular	
GOS_H	rounded to sub-rounded	rounded to sub-rounded	
GOS_H	sub-angular	sub-angular	
GOS_H	sub-angular to angular	sub-angular to angular	
GOS_H	sub-rounded	sub-rounded	
GOS_H	sub-rounded to sub-angular	sub-rounded to sub-angular	
GOS_L	high	high, LL > 50%	
GOS_L	low	low, LL < 35%	
GOS_L	medium	medium, LL 35% - 50%	
GOS_L	non	non	
GOS_MQ	trace	trace, coarse soil <= 5%, fine soil < 15%	
GOS_MQ	with	with, coarse soil > 5% to <= 12%, fine soil > 15% to <= 30%	
GOS_NAM	boulders	boulders, >200 mm	
GOS_NAM	clay	clay, <0.002 mm	
GOS_NAM	cobbles	cobbles, 60 - 200 mm	
GOS_NAM	gravel	gravel, 2 - 60 mm	
GOS_NAM	peat	peat	
GOS_NAM	sand	sand, 0.06 - 2 mm	
GOS_NAM	silt	silt, 0.002 - 0.06 mm	
GOS_NAQ	bioclastic	bioclastic	
GOS_NAQ	calcereous	calcereous	
GOS_NAQ	carbonate	carbonate	
GOS_NAQ	organic	organic	
GOS_NAQ	siliceous	siliceous	
GOS_NAQ	siliceous carbonate	siliceous carbonate	
GOS_NCQ	interbedded	interbedded	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
GOS_NCQ	pockets	pockets	
GOS_NCQ	zones	zones	
GOS_P	coarse	coarse	
GOS_P	fine	fine	
GOS_P	medium	medium	
GOS_U	gap graded	with one or more intermediate sizes absent	
GOS_U	poorly graded	with one or more intermediate sizes poorly represented	
GOS_U	uniform	essentially of one size	
GOS_U	well graded	having good representation of all particle sizes fro the largest to the smallest	
GRAG_TYPE	DS	Dry Sieve	
GRAG_TYPE	HY	Hydrometer	
GRAG_TYPE	PP	Pipette	
GRAG_TYPE	WS	Wet Sieve	
HDPH_DEM	AD/T	Auger drilling with tc-bit	
HDPH_DEM	AD/V	Auger drilling with v-bit	
HDPH_DEM	AS	Auger screwing	
HDPH_DEM	AT	air track	
HDPH_DEM	B	Dozer blade	
HDPH_DEM	BH	Backhoe bucket	
HDPH_DEM	CT	Cable tool	
HDPH_DEM	DB	Washbore drag bit	
HDPH_DEM	DT	Diatube	
HDPH_DEM	E	Excavator	
HDPH_DEM	EH	excavator with hammer	
HDPH_DEM	HA	Hand auger	
HDPH_DEM	HMLC	HMLC core barrel	
HDPH_DEM	HQ3	HQ3 core barrel	
HDPH_DEM	MZ	Mazier	
HDPH_DEM	N	Natural exposure	
HDPH_DEM	NMLC	NMLC core barrel	
HDPH_DEM	NQ3	NQ3 core barrel	
HDPH_DEM	PQ3	PQ3 core barrel	
HDPH_DEM	Pushed SPT	pushed SPT	
HDPH_DEM	PT	push tube	New6
HDPH_DEM	R	Ripper	
HDPH_DEM	RR	Rock roller	
HDPH_DEM	SPT	Driven SPT	
HDPH_DEM	WB	Washbore	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
HDPH_DEM	X	Existing excavation	
HDPH_SHOR	T	Timbering	
HIST	A	air-dried	
HIST	N	natural state	
HIST	O	oven-dried	
HIST	U	unknown	
HOLE_LOCM	dGPS0.001	Differential GPS ± 0.001 m	
HOLE_LOCM	dGPS0.01	Differential GPS ± 0.01 m	
HOLE_LOCM	dGPS0.1	Differential GPS ± 0.1 m	
HOLE_LOCM	dGPS1	Differential GPS ± 1 m	
HOLE_LOCM	dGPS2	Differential GPS ± 2 m	
HOLE_LOCM	hhGPS5	Hand held GPS (not differential) ± 5 m	
HOLE_LOCM	LL0.1	Line and level ± 0.1 m	
HOLE_LOCM	LL1	Line and level ± 1 m	
HOLE_LOCM	MAP0.1	Estimated from map/plan ± 0.1 m	
HOLE_LOCM	MAP0.5	Estimated from map/plan ± 0.5 m	
HOLE_LOCM	MAP1	Estimated from map/plan ± 1 m	
HOLE_LOCM	MAP5	Estimated from map/plan ± 5 m	
HOLE_LOCM	OS0.001	Optical survey ± 0.001 m	
HOLE_LOCM	OS0.01	Optical survey ± 0.01 m	
HOLE_LOCM	OS0.1	Optical survey ± 0.1 m	
HOLE_LOCM	PC1	Pace and compass ± 1 m	
HOLE_LOCM	PC5	Pace and compass ± 5 m	
HOLE_PURP	Foundation	Foundation	
HOLE_PURP	Slope	Slope	
HOLE_PURP	Tunnel	Tunnel	
HOLE_STAB	Collapse on Face A	Face A collapses	
HOLE_STAB	Collapse on Face B	Face B collapses	
HOLE_STAB	Collapse on Face C	Face C collapses	
HOLE_STAB	Collapse on Face D	Face D collapses	
HOLE_STAB	Flooding	Excavation fills with water	
HOLE_STAB	Major spalling	Large amounts of material falling into excavation	
HOLE_STAB	Minor spalling	Some material falling into excavation	
HOLE_STAB	Stable	Stable	
HOLE_STAB	Unstable	More than 1 face unstable	
HOLE_TERM	Collapse	Exploratory Hole collapsed before reaching planned depth	
HOLE_TERM	Equipment failure	E.g. auger broke	
HOLE_TERM	Flooding	Flooding	
HOLE_TERM	Machine Limit	Machine Limit	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
HOLE_TERM	Obstruction in the hole	Obstruction in the hole	
HOLE_TERM	Possible services	Services likely to be present	
HOLE_TERM	Refusal	Refusal	
HOLE_TERM	Services present	Services encountered during exploratory hole	
HOLE_TERM	Squeezing	Hole squeezing on Auger rods	
HOLE_TERM	Target depth	Exploratory Hole reached planned depth	
HOLE_TYPE	BH	Borehole	
HOLE_TYPE	CPT	Cone penetration test	
HOLE_TYPE	DCP	Dynamic cone penetrometer	
HOLE_TYPE	EXP	Logged exposure	
HOLE_TYPE	ICBR	In situ CBR	
HOLE_TYPE	IDEN	In situ density test	
HOLE_TYPE	INST	Instrument	
HOLE_TYPE	IRDX	In situ redox test	
HOLE_TYPE	IRES	In situ resistivity	
HOLE_TYPE	IVAN	In situ penetration vane test	
HOLE_TYPE	OP	Observation pit/trench	
HOLE_TYPE	PM	Pressuremeter test hole	
HOLE_TYPE	S	Shaft	
HOLE_TYPE	SRAL	Seismic refraction line	
HOLE_TYPE	TP	Test pit/trial pit/trench/excavation	
HOLE_TYPE	TRAV	Linear logging traverse or scanline survey	
HOLE_WREM	Drilled Over Water	Drilled Over Water	
HOLE_WREM	Dry	Dry	
HOLE_WREM	Not Encountered	Not Encountered	
HOLE_WREM	Not Observed	Not Observed	
IMAG_TYPE	CPB	core box photo	Rev6
IMAG_TYPE	CPC	core photo column	
IMAG_TYPE	DIC	downhole image column	
IMAG_TYPE	FS	sketch of test pit face, exposure or traverse face	
IMAG_TYPE	SP	general surface photo	
IMAG_TYPE	SS	general surface sketch	
IMAG_TYPE	TRP	test pit, exposure or traverse photo	
IMAG_TYPE	VSC	borehole visual column sketch	
IPRM_FTyp	dilation	dilation	
IPRM_FTyp	hydraulic fracture	hydraulic fracture	
IPRM_FTyp	laminar flow	laminar flow	
IPRM_FTyp	progressive scour	progressive scour	
IPRM_FTyp	turbulent flow	turbulent flow	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
IPRM_FTYPE	void-filling	void-filling	
IPRM_FTYPE	wash-out	wash-out	
IPRM_TYPE	CHT	Constant Head	
IPRM_TYPE	FHT	Falling Head	
IPRM_TYPE	RHT	Rising Head	
ISPT_TYPE	C	Cone	
ISPT_TYPE	S	Split Spoon	
LLPL_RM	NO	Not obtainable	
LLPL_RM	NP	Non-plastic	
METH	AS 1141.0-1999	List of methods	
METH	AS 1141.11-1996	Particle size distribution by sieving	
METH	AS 1141.1-1996	Definitions	
METH	AS 1141.12-1996	Materials finer than 75 µm in aggregates (by washing)	
METH	AS 1141.13-1995	Material finer than 2 µm	
METH	AS 1141.15-1999	Flakiness index	
METH	AS 1141.16-1995	Angularity number	
METH	AS 1141.17-1995	Voids in dry compacted filler	
METH	AS 1141.18-1996	Crushed particles of coarse aggregate derived from gravel	
METH	AS 1141.19-1998	Fine particle size distribution in road materials by sieving and decantation	
METH	AS 1141.20.1-2000	Methods for sampling and testing aggregates - Average least dimension - Direct measurement (nominal size 10 mm and greater)	
METH	AS 1141.20.2-2000	Methods for sampling and testing aggregates - Average least dimension - Direct measurement (nominal sizes 5 mm and 7 mm)	
METH	AS 1141.20.3-2000	Methods for sampling and testing aggregates - Average least dimension - Calculation (nomograph)	
METH	AS 1141.21-1997	Aggregate crushing value	
METH	AS 1141.2-1999	Basic testing equipment	
METH	AS 1141.22-1996	Wet/dry strength variation	
METH	AS 1141.23-1995	Los Angeles value	
METH	AS 1141.24-1997	Aggregate soundness - Evaluation by exposure to sodium sulphate solution	
METH	AS 1141.25.1-2003	Degradation factor - Source rock	
METH	AS 1141.25.2-2003	Degradation factor - Coarse aggregate	
METH	AS 1141.26-1996	Secondary minerals content in basic igneous rocks	
METH	AS 1141.27-1995	Resistance to wear by attrition	
METH	AS 1141.28-1999	Ball mill value	
METH	AS 1141.29-1999	Accelerated soundness index by reflux	
METH	AS 1141.3.1-1996	Sampling - Aggregates	
METH	AS 1141.3.2-1996	Sampling - Rock spalls, boulders and drill core	
METH	AS 1141.3.3-1999	Sampling - Preparation of stabilized pavement materials	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	AS 1141.30-1996	Coarse aggregate quality by visual comparison	
METH	AS 1141.31-1997	Light particles	
METH	AS 1141.32-1995	Weak particles (including clay lumps, soft and friable particles) in coarse aggregate	
METH	AS 1141.33-1997	Clay and fine silt (settling method)	
METH	AS 1141.34-1997	Organic impurities other than sugar	
METH	AS 1141.35-1995	Sugar	
METH	AS 1141.36-1997	Sulphur in metallurgical slag, crushed rock or other pavement materials	
METH	AS 1141.37-1995	Iron unsoundness	
METH	AS 1141.40-1999	Polished aggregate friction value - Vertical road-wheel machine	
METH	AS 1141.41-1999	Polished aggregate friction value - Horizontal bed machine	
METH	AS 1141.4-2000	Bulk density of aggregates	
METH	AS 1141.42-1999	Pendulum friction test	
METH	AS 1141.50-1998	Resistance to stripping of cover aggregates from binders	
METH	AS 1141.51-1996	Unconfined compressive strength of compacted materials	
METH	AS 1141.5-2000	Particle density and water absorption of fine aggregate	
METH	AS 1141.52-1995	Unconfined cohesion of compacted pavement materials	
METH	AS 1141.53-1996	Absorption, swell and capillary rise of compacted materials	
METH	AS 1141.6.1-2000	Particle density and water absorption of coarse aggregate - Weighing-in-water method	
METH	AS 1141.6.2-1996	Particle density and water absorption of coarse aggregate - Pycnometer method	
METH	AS 1141.70-1996	Lime or cement content of uncured stabilized pavement materials (EDTA method)	
METH	AS 1141.71-1998	Lime or cement content of stabilized pavement materials (EDTA method)	
METH	AS 1141.7-1995	Apparent particle density of filler	
METH	AS 1141.72-1996	Cement content of cement stabilized materials	
METH	AS 1141.8-1995	Water soluble fraction of filler	
METH	AS 1289.1.1-2001	Sampling and preparation of Soils - Preparation of disturbed soil samples for testing	
METH	AS 1289.1.2.1-1998	Sampling and preparation of Soils - Disturbed samples - Standard method	
METH	AS 1289.1.3.1-1999	Sampling and preparation of Soils - Undisturbed samples - Standard method	
METH	AS 1289.1.4.1-1998	Sampling and preparation of Soils - Selection of sampling or test sites - Random number method	
METH	AS 1289.1.4.2-1998	Sampling and preparation of Soils - Selection of sampling or test sites - Stratified random number method	
METH	AS 1289.2.1.1-2005	Soil moisture content tests - Determination of the moisture content of a soil - Oven drying method (standard method)	
METH	AS 1289.2.1.2-2005	Soil moisture content tests - Determination of the moisture content of a soil - Sand bath method (subsidiary method)	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	AS 1289.2.1.4-2005	Soil moisture content tests - Determination of the moisture content of a soil - Microwave-oven drying method (subsidiary method)	
METH	AS 1289.2.1.5-2005	Soil moisture content tests - Determination of the moisture content of a soil - Infrared lights method (subsidiary method)	
METH	AS 1289.2.1.6-2005	Soil moisture content tests - Determination of the moisture content of a soil - Hotplate drying method (subsidiary method)	
METH	AS 1289.2.2.1-1998	Soil moisture content tests - Determination of the total suction of a soil - Standard method	
METH	AS 1289.2.3.1-1998	Soil moisture content tests - Establishment of correlation - Subsidiary method and the standard method	
METH	AS 1289.3.1.1-1995	Soil classification tests - Determination of the liquid limit of a soil - Four point Casagrande method	
METH	AS 1289.3.1.2-1995	Soil classification tests - Determination of the liquid limit of a soil - One point Casagrande method (subsidiary method)	
METH	AS 1289.3.2.1-1995	Soil classification tests - Determination of the plastic limit of a soil - Standard method	
METH	AS 1289.3.3.1-1995	Soil classification tests - Calculation of the plasticity index of a soil	
METH	AS 1289.3.3.2-1995	Soil classification tests - Calculation of the cone plasticity index of a soil	
METH	AS 1289.3.4.1-1995	Soil classification tests - Determination of the linear shrinkage of a soil - Standard method	
METH	AS 1289.3.5.1-1995	Soil classification tests - Determination of the soil particle density of a soil - Standard method	
METH	AS 1289.3.5.2-2002	Soil classification tests - Determination of the soil particle density of combined soil fractions - Vacuum pycnometer method	
METH	AS 1289.3.6.1-1995	Soil classification tests - Determination of the particle size distribution of a soil - Standard method of analysis by sieving	
METH	AS 1289.3.6.2-1995	Soil classification tests - Determination of the particle size distribution of a soil - Analysis by sieving in combination with hydrometer analysis (subsidiary method)	
METH	AS 1289.3.6.3-2003	Soil classification tests - Determination of the particle size distribution of a soil - Standard method of fine analysis using a hydrometer	
METH	AS 1289.3.7.1-2002	Soil classification tests - Determination of the sand equivalent of a soil using a power-operated shaker	
METH	AS 1289.3.8.1-1997	Soil classification tests - Dispersion - Determination of Emerson class number of a soil	
METH	AS 1289.3.8.2-1997	Soil classification tests - Dispersion - Determination of the percent dispersion of a soil	
METH	AS 1289.3.8.3-1997	Soil classification tests - Dispersion - Determination of the pinhole dispersion classification of a soil	
METH	AS 1289.3.9-2002	Soil classification tests - Determination of the cone liquid limit of soil	
METH	AS 1289.4.1.1-1997	Soil chemical tests - Determination of the organic matter content of a soil - Normal method	
METH	AS 1289.4.2.1-1997	Soil chemical tests - Determination of the sulfate content of a soil and the sulfate content of the ground water - Normal method	
METH	AS 1289.4.3.1-1997	Soil chemical tests - Determination of the pH value of a soil - Electrometric method	
METH	AS 1289.4.4.1-1997	Soil chemical tests - Determination of the electrical resistivity of a soil - Method for sands and granular materials	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	AS 1289.5.1.1-2003	Soil compaction and density tests - Determination of the dry density/moisture content relation of a soil using standard compactive effort	
METH	AS 1289.5.2.1-2003	Soil compaction and density tests - Determination of the dry density/moisture content relation of a soil using modified compactive effort	
METH	AS 1289.5.3.1-2004	Soil compaction and density tests - Determination of the field density of a soil - Sand replacement method using a sand-cone pouring apparatus	
METH	AS 1289.5.3.2-2004	Soil compaction and density tests - Determination of the field dry density of a soil - Sand replacement method using a sand pouring can, with or without a volume displacer	
METH	AS 1289.5.3.5-1997	Soil compaction and density tests - Determination of the field dry density of a soil - Water replacement method	
METH	AS 1289.5.4.1-1993	Soil compaction and density tests - Compaction control test - Dry density ratio, moisture variation and moisture ratio	
METH	AS 1289.5.4.2-1993	Soil compaction and density tests - Compaction control test - Assignment of maximum dry density ratio and optimum moisture content values	
METH	AS 1289.5.5.1-1998	Soil compaction and density tests - Determination of the minimum and maximum dry density of a cohesionless material - Standard method	
METH	AS 1289.5.6.1-1998	Soil compaction and density tests - Compaction control test - Density index method for a cohesionless material	
METH	AS 1289.5.7.1-1993	Soil compaction and density tests - Compaction control test - Hilt density ratio and Hilt moisture variation (rapid method)	
METH	AS 1289.5.8.1-1995	Soil compaction and density tests - Determination of field density and field moisture content of a soil using a nuclear surface moisture-density gauge - Direct transmission mode	
METH	AS 1289.5.8.4-1998	Soil compaction and density tests - Nuclear surface moisture-density gauges - Calibration using standard blocks	
METH	AS 1289.5.8.5-1998	Soil compaction and density tests - Nuclear surface moisture-density gauge - Determination of density of a Type A or Type C standard density block	
METH	AS 1289.5.8.6-1998	Soil compaction and density tests - Nuclear surface moisture-density gauge - Assignment of density for a Type B standard density block	
METH	AS 1289.5.8.7-1998	Soil compaction and density tests - Nuclear surface moisture-density gauges - Water content of a standard moisture block using hydrogen content of components	
METH	AS 1289.5.8.8-1998	Soil compaction and density tests - Nuclear surface moisture-density gauges - Water content of a standard moisture block using proportion of water	
METH	AS 1289.5.8.9-1998	Soil compaction and density tests - Nuclear surface moisture-density gauge - Assignment of water content for a standard moisture block using comparison against primary blocks	
METH	AS 1289.6.1.1-1998	Soil strength and consolidation tests - Determination of the California Bearing Ratio of a soil - Standard laboratory method for a remoulded specimen	
METH	AS 1289.6.1.2-1998	Soil strength and consolidation tests - Determination of the California Bearing Ratio of a soil - Standard laboratory method for an undisturbed specimen	
METH	AS 1289.6.1.3-1998	Soil strength and consolidation tests - Determination of the California Bearing Ratio of a soil - Standard field-in-place method	
METH	AS 1289.6.2.1-2001	Soil strength and consolidation tests - Determination of the shear strength of a soil - Field test using a vane	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	AS 1289.6.2.2-1998	Soil strength and consolidation tests - Determination of the shear strength of a soil - Direct shear test using a shear box	
METH	AS 1289.6.3.1-2004	Soil strength and consolidation tests - Determination of the penetration resistance of a soil - Standard penetration test (SPT)	
METH	AS 1289.6.3.2-1997	Soil strength and consolidation tests - Determination of the penetration resistance of a soil - 9 kg dynamic cone penetrometer test	
METH	AS 1289.6.3.3-1997	Soil strength and consolidation tests - Determination of the penetration resistance of a soil with a Perth sand penetrometer	
METH	AS 1289.6.4.1-1998	Soil strength and consolidation tests - Determination of the compressive strength of a soil - Compressive strength of a saturated specimen tested in undrained triaxial compression without measurement of pore water pressure	
METH	AS 1289.6.4.2-1998	Soil strength and consolidation tests - Determination of the compressive strength of a soil - Compressive strength of a saturated specimen tested in undrained triaxial compression with measurement of pore water pressure	
METH	AS 1289.6.5.1-1999	Soil strength and consolidation tests - Determination of the static cone penetration resistance of a soil - Field test using a mechanical cone or friction-core penetrometer	
METH	AS 1289.6.6.1-1998	Soil strength and consolidation tests - Determination of the one-dimensional consolidation properties of a soil - Standard method	
METH	AS 1289.6.7.1-2001	Soil strength and consolidation tests - Determination of the permeability of a soil - Constant head method for a remoulded specimen	
METH	AS 1289.6.7.2-2003	Soil strength and consolidation tests - Determination of the permeability of a soil - Falling head method for a remoulded specimen	
METH	AS 1289.6.7.3-1999	Soil strength and consolidation tests - Determination of the permeability of a soil - Constant head method using a flexible wall permeameter	
METH	AS 1289.6.8.1-1995	Soil strength and consolidation tests - Determination of the resilient modulus and permanent deformation of a granular and unbound pavement materials	
METH	AS 1289.6.9.1-2000	Soil strength and consolidation tests - Determination of the common impact value	
METH	AS 1289.7.1.1-2003	Soil reactivity tests - Determination of the shrinkage index of a soil - Shrink-swell index	
METH	AS 1289.7.1.2-1998	Soil reactivity tests - Determination of the shrinkage index of a soil - Loaded shrinkage index	
METH	AS 1289.7.1.3-1998	Soil reactivity tests - Determination of the shrinkage index of a soil - Core shrinkage index	
METH	AS 4133.0-2005	Methods of testing rock for engineering purposes - General requirements and list of methods	
METH	AS 4133.1.1.1-2005	Rock moisture content tests - Determination of the moisture content of rock - Oven drying method (standard method)	
METH	AS 4133.2.1.1-2005	Rock porosity and density tests - Determination of rock porosity and dry density - Saturation and calliper techniques	
METH	AS 4133.2.1.2-2005	Rock porosity and density tests - Determination of rock porosity and dry density - Saturation and buoyancy techniques	
METH	AS 4133.3.1-2005	Rock swelling and slake durability tests - Determination of the swelling strain developed in an unconfined rock specimen	
METH	AS 4133.3.2-2005	Rock swelling and slake durability tests - Determination of the swelling strain for a radially confined specimen with axial surcharge	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	AS 4133.3.3-2005	Rock swelling and slake durability tests - Determination of the swelling pressure index under conditions of zero volume change	
METH	AS 4133.3.4-2005	Rock swelling and slake durability tests - Determination of the slake durability index of rock samples	
METH	AS 4133.4.1-1993	Rock strength tests - Determination of the point load strength index	
METH	AS 4133.4.2-1993	Rock strength tests - Determination of the uniaxial compressive strength	
METH	AS 4133.4.3-1993	Rock strength tests - Determination of deformability of rock materials in uniaxial compression	
METH	AS 4133.5-2002	Sampling of rock core	
METH	ASTM D4648-05	Standard Test Method for Laboratory Miniature Vane Shear Test for Saturated Fine-Grained Clayey Soil	
METH	ASTM D4719-00	Standard Test Method for Prebored Pressuremeter Testing in Soils	
METH	BS 1377-2:1990:6.3	Volumetric shrinkage (definitive method)	
METH	BS 1377-4:1990:5.4	Determination of the MCV of a sample of soil at its natural moisture content	
METH	BS 1377-7:1990:3	Determination of shear strength by the laboratory vane method	
METH	BS 1377-9:1990:5.1	Determination in-situ of the apparent resistivity of soil	
METH	BS 812-111:1990	Testing aggregates. Methods for determination of ten per cent fines value (TFV)	
METH	BS ISO 11271:2002	Soil quality. Determination of redox potential. Field method	
METH	Houlsby:1976	A.C. Houlsby (1976), "Routine Interpretation of the Lugeon Water-Test", Quarterly Journal of Engineering Geology, Volume 9, No. 4, 1976, pp 303-313	
METH	ISO/DIS 22476-4	Geotechnical investigation and testing. Field testing. Part 4. Menard pressuremeter test	
METH	ISO/TS 17892-2:2004	Geotechnical investigation and testing - Laboratory testing of soil - Part 2: Determination of density of fine-grained soil	
METH	ISRM:1985	Suggested method for determining point load strength	
METH	Robertson et al. 1986 - qt/Bq	Robertson et al. 1986 correct cone resistance versus pore pressure parameter method	
METH	Robertson et al. 1986 - qt/Rf	Robertson et al. 1986 correct cone resistance versus friction ratio method	
METH	Robertson et al. 1990 - Qt/Fr	Robertson et al. 1990 normalised cone resistance versus normalised friction ratio method	
METH	Robertson et al. 1990 - Qt/Bq	Robertson et al. 1990 normalised cone resistance versus pore pressure parameter method	
METH	Jefferies and Davies 1991	Jefferies and Davies 1991	
METH	RTA t1001	Total Hardness of Water	
METH	RTA t1002	Determination of the pH of Water using a pH Meter	
METH	RTA t1003	Total Solids in Water	
METH	RTA t1004	Quantitative Determination of Chloride Ion in Water Where Chloride Content is More Than 15 ppm	
METH	RTA t1005	Recording the Infrared Spectrum of Materials	
METH	RTA t1006	Qualitative Determination of Chromate Ion in Water Where Chromate Content is More Than 10 ppm	
METH	RTA t1007	"M" Alkalinity of Water	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	RTA t1008	Qualitative Determination of the Presence of Phosphates in Water	
METH	RTA t1009	Quantitative Determination of Calcium Hardness of Water	
METH	RTA t1010	Quantitative Determination of Chlorides in Soil	
METH	RTA t1011	Quantitative Determination of Sulphates in Soil	
METH	RTA t1014	Sulphate Ion in Water	
METH	RTA t1017	Determination of Metallic Zinc	
METH	RTA t1020	Colorimetric Determination of Chromate Ion in Water Where Chromate Content is 0-2 ppm	
METH	RTA t1021	Soluble Phosphorous Content in Soils	
METH	RTA t1022	Determination of the Organic Matter in Soils (Peroxide Method)	
METH	RTA t1023	Determination of the Organic Matter in Soils (Dichromate Method)	
METH	RTA t1024	Conductivity of Water	
METH	RTA t1025	Determination of Total Amine Value by Referee Potentiometric Method	
METH	RTA t1026	Determination of the Degree of Oxidation of Coal (Field Method)	
METH	RTA t1029	Determination of Chloride Content in Powdered Concrete	
METH	RTA t1030	Determination of Total Actual Acidity of Acid Sulphate Soils	
METH	RTA t1031	Determination of Total Potential Acidity of Acid Sulphate Soils	
METH	RTA t105	Preparation and Division of Samples for Testing	
METH	RTA t106	Coarse Particle Distribution in Road Materials	
METH	RTA t107	Fine Particle Distribution in Road Materials	
METH	RTA t108	Liquid Limit of Road Materials	
METH	RTA t109	Plastic Limit and Plasticity Index of Road Materials	
METH	RTA t111	Dry Density/Moisture Relations of Road Materials (Standard Compaction)	
METH	RTA t112	Dry Density/Moisture Relations of Road Materials (Modified Compaction)	
METH	RTA t113	Linear Shrinkage of Road Materials	
METH	RTA t114	Maximum Dry Compressive Strength of Road Materials	
METH	RTA t116	Determination of UCS of Remoulded Road Materials which are Self Cementing	
METH	RTA t117	Determination of the CBR of Remoulded Specimens of Road Materials (Standard Method)	
METH	RTA t117a	Determination of the CBR of Remoulded Specimens of Road Material (Ten Day Soak)	
METH	RTA t118	Determination of the In Situ California Bearing Ratio of Road Materials	
METH	RTA t119	Determination of Density of Road Materials In Situ Using the Sand Replacement Method	
METH	RTA t120	Determination of Moisture Content of Road Materials (Standard Method)	
METH	RTA t121	Determination of Moisture Content of Road Materials (Sand Bath or Hot Plate Method)	
METH	RTA t123	pH Value of Soil	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	RTA t125	Determination of Dry Density of Road Materials In Situ Using the Balloon Densometer Method	
METH	RTA t127	Apparent Density of Fine Soil Particles	
METH	RTA t128	Apparent Density of Soils Containing Coarse Particles	
METH	RTA t129	Particle Density and Water Absorption of the Fine Sand Fraction of Soils	
METH	RTA t1311	Determination of Permeability of a Soil - Constant Head Method	
METH	RTA t1351	Weight Sounding in Swampy Areas Using Manual Equipment	
METH	RTA t160	Benkelman Beam Deflection Test	
METH	RTA t161	Dynamic Cone Penetrometer	
METH	RTA t162	Compaction Control Test (Rapid Method)	
METH	RTA t163	Compaction Factor of Soils and Gravels	
METH	RTA t164	Determination of Maximum Dry Density of Cohesionless Materials by Vibration Method	
METH	RTA t165	Determination of Density in Situ by Fixed Volume Extractive Method	
METH	RTA t166	Determination of Relative Compaction	
METH	RTA t167	Determination of the California Bearing Ratio of Remoulded Specimens of Road Materials (Design Method)	
METH	RTA t168	Determination of In Situ Infiltration of Water into a Road Pavement	
METH	RTA t169	Measurement of Soil Moisture Suction Using the Filter Paper Method	
METH	RTA t170	Determination of the Soil Suction-Moisture Content Relationship for Soils	
METH	RTA t171	Modified Texas Triaxial Compression Test for Disturbed Soils	
METH	RTA t172	Determination of Capillary Rise and Swell and Absorption of Road Materials	
METH	RTA t173	Determination of Field Dry Density and Moisture Content of Pavement Materials using a Nuclear Gauge in Direct Transmission Mode	
METH	RTA t176	Calibration of a Nuclear Density-Moisture Gauge (Blocks Method)	
METH	RTA t180	Determination of Moisture Content of Road Materials (Microwave Oven Method)	
METH	RTA t185	Resistivity of Sands and Granular Material	
METH	RTA t190	Fine Particle Size Distribution by Hydrometer	
METH	RTA t200	Chloride content of roadbase	
METH	RTA t201	Sieve Analysis of Aggregates	
METH	RTA t202	Presence of Friable Particles in Aggregates	
METH	RTA t203	Materials Finer than 75 µm in Aggregates (by Washing)	
METH	RTA t204	Los Angeles Test for Coarse Aggregates	
METH	RTA t205	Aggregate Crushing Value	
METH	RTA t208	Water Absorption of Coarse Aggregate	
METH	RTA t209	Density and Water Absorption of Coarse Aggregate	
METH	RTA t210	Density and Water Absorption of Fine Aggregate	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	RTA t211	Loose Unit Mass of Aggregate	
METH	RTA t212	Compacted Unit Mass of Aggregate	
METH	RTA t213	Particle Shape of Coarse Aggregate by Proportional Calliper	
METH	RTA t215	Wet/Dry Strength Variation	
METH	RTA t216	Sandstone Crushing Value	
METH	RTA t217	Accelerated Expansion Test	
METH	RTA t218	Total Sulphur Content in Metallurgical Slag	
METH	RTA t219	Acid Soluble Sulphate Content in Metallurgical Slag	
METH	RTA t220	Iron Unsoundness in Metallurgical Slag	
METH	RTA t221	Dusting or Falling Unsoundness in Metallurgical Slag (Petrographic Method)	
METH	RTA t222	Indirect Tensile Strength of Rock Drill Core (Brazil or Splitting Test)	
METH	RTA t223	Determination of the Point Load Strength of Rock Specimens (Field Method)	
METH	RTA t224	Determination of the Ultrasonic Velocity of Soil and Rock	
METH	RTA t225	Petrographic Examination of Granular Material	
METH	RTA t226	Petrographic Examination of Rock in Thin Section and Polished Thin Section	
METH	RTA t227	Clay Content of Crushed Rock Used for Pavement Construction (X-ray & Petrographic Methods)	
METH	RTA t229	Unconfined Compressive Strength of Rock Core to 50 MPa Strength	
METH	RTA t230	Resistance to Stripping of Aggregates and Binders	
METH	RTA t231	Frictional Resistance by Pendulum Tester	
METH	RTA t232	Average Texture Depth of Road Surface Using the Textural Depth Meter	
METH	RTA t233	Polishing Value of Aggregate	
METH	RTA t234	Polishing Value of Aggregate by Trafficking	
METH	RTA t235	Average Least Dimension of Aggregate	
METH	RTA t236	Rate of Spread of Cover Aggregate	
METH	RTA t237	Rate of Application of Precoating Agent to Cover Aggregate	
METH	RTA t238	Initial Adhesion of Cover Aggregates and Binders	
METH	RTA t239	Fractured Faces of Coarse Aggregate	
METH	RTA t240	Texture Depth of Coarse Textured Road Surfaces	
METH	RTA t260	Organic Impurities in Fine Aggregate (Colour Test)	
METH	RTA t262	Determination of Moisture Content of Aggregates (Standard Method)	
METH	RTA t263	Bulking of Sand	
METH	RTA t264	Soluble Salts in Sand	
METH	RTA t266	Soundness of Aggregates (By Use of Sodium Sulphate Solution)	
METH	RTA t268	Determination of Clay or Fine Silt Content in Aggregate (Settling Method)	
METH	RTA t269	Sugar in Aggregate	
METH	RTA t270	Material Finer than 2 µm in Aggregates	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
METH	RTA t271	Ball Penetration Test	
METH	RTA t272	Modified Tray Test for Sealing Aggregates	
METH	RTA t274	Measurements of Aggregate Spread Rate During Sealing (Field Method)	
METH	RTA t275	Average Least Dimension of 5 mm and 7 mm Aggregates	
METH	RTA t276	Foreign Materials Content of Recycled Crushed Concrete	
METH	RTA t277	Measurement of Loose Aggregate on Sprayed Seals	
METH	RTA t278	Aggregate Shape by AGD/ALD Dimension	
MONP_TYPE	ANEM	Anemometer	
MONP_TYPE	DM	Discontinuity monitoring	
MONP_TYPE	EPCE	Embedment pressure cell - electronic	
MONP_TYPE	EPCH	Embedment pressure cell - hydraulic	
MONP_TYPE	EPCP	Embedment pressure cell - pneumatic	
MONP_TYPE	EPIE	Electronic Piezometer	
MONP_TYPE	ESET	Electronic settlement cell/gauges	
MONP_TYPE	ETM	Magnetic Extensometer	
MONP_TYPE	ETR	Rod Extensometer	
MONP_TYPE	ETT	Tape Extensometer	
MONP_TYPE	GMP	Gas monitoring point	
MONP_TYPE	GWMP	Groundwater monitoring point	
MONP_TYPE	HPIE	Hydraulic piezometer	
MONP_TYPE	HSET	Hydraulic settlement cell/gauges	
MONP_TYPE	ICE	Inclinometer - Electronic	
MONP_TYPE	ICM	Inclinometer - Manual	
MONP_TYPE	IPCE	Interface pressure cell - electronic	
MONP_TYPE	IPCH	Interface pressure cell - hydraulic	
MONP_TYPE	IPCP	Interface pressure cell - pneumatic	
MONP_TYPE	LC	Load cell	
MONP_TYPE	MSET	Levelling point or plate	
MONP_TYPE	PPCE	Push in pressure cell - electronic	
MONP_TYPE	PPCH	Push in pressure cell - hydraulic	
MONP_TYPE	PPCP	Push in pressure cell - pneumatic	
MONP_TYPE	PPIE	Pneumatic Piezometer	
MONP_TYPE	PSET	Pneumatic settlement cell/gauges	
MONP_TYPE	SG	Strain gauge	
MONP_TYPE	SLIP	Slip indicator	
MONP_TYPE	SP	Standpipe	
MONP_TYPE	SPIE	Standpipe piezometer	
MONP_TYPE	TMB	Tiltmeter - Biaxial	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
MONP_TYPE	TMU	Tiltmeter - Uniaxial	
MONP_TYPE	TP	Temperature measuring point	
MONP_TYPE	TS	Total station point	
PENR_PENR	E	easy	
PENR_PENR	F	firm	
PENR_PENR	H	hard	
PENR_PENR	VE	very easy	
PENR_PENR	VH	very hard	
LPHD_LPHD	D1	highly dispersive	
LPHD_LPHD	D2	dispersive	
LPHD_LPHD	ND1	completely erosion resistant	
LPHD_LPHD	ND2	non-dispersive	
LPHD_LPHD	PD1	potentially dispersive (intermediate)	
LPHD_LPHD	PD2	potentially dispersive (intermediate)	
PREP	DS	Dry sieve	
PREP	WS	Wet sieve	
PROJ_COS	AMG66	Australian Map Grid 1966	
PROJ_COS	AMG84	Australian Map Grid 1984	
PROJ_COS	ISG66	Integrated Survey Grid 1966	
PROJ_COS	MGA94	Map Grid of Australia 1994	
PROJ_EDM	AHD	Australian Height Datum	
PMTG_TYPE	HPD	High pressure dilatometer	New6
PMTG_TYPE	MPM	Menard type pressuremeter	New6
PMTG_TYPE	PIP	Push-in pressuremeter	New6
PMTG_TYPE	SBP	Self boring pressuremeter	New6
PMTG_TYPE	WRSBP	Weak rock self boring pressuremeter	New6
PRTD_TYPE	HPD	High pressure dilatometer	Del6
PRTD_TYPE	MPM	Menard type pressuremeter	Del6
PRTD_TYPE	PIP	Push-in pressuremeter	Del6
PRTD_TYPE	SBP	Self boring pressuremeter	Del6
PRTD_TYPE	WRSBP	Weak rock self boring pressuremeter	Del6
PTIM_SFTM	E	End Shift	
PTIM_SFTM	I	Intermediate	
PTIM_SFTM	S	Start Shift or more than 10 hrs since last drilled	
RCKS_STR	EH	extremely high	
RCKS_STR	EL	extremely low	
RCKS_STR	H	high	
RCKS_STR	L	low	
RCKS_STR	M	medium	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
RCKS_STR	VH	very high	
RCKS_STR	VL	very low	
RPLT_MCOD	D	Dry	
RPLT_MCOD	F	Field	
RPLT_MCOD	S	Saturated	
RPLT_ORIN	L	Perpendicular to planes of weakness	
RPLT_ORIN	P	Parallel to planes of weakness	
RPLT_PLTF	A	Axial	
RPLT_PLTF	B	Block	
RPLT_PLTF	D	Diametral	
RPLT_PLTF	I	Irregular lump	
SAMP_TYPE	B	Bulk disturbed sample	
SAMP_TYPE	BLK	Block sample	
SAMP_TYPE	C	Core sample	
SAMP_TYPE	CBR	CBR mould sample	
SAMP_TYPE	D	Small disturbed sample	
SAMP_TYPE	ES	Soil sample for environmental testing	
SAMP_TYPE	EW	Water sample for environmental testing	
SAMP_TYPE	G	Gas sample	
SAMP_TYPE	LB	Large bulk disturbed sample	
SAMP_TYPE	M	Mazier type sample	
SAMP_TYPE	P	Piston sample	
SAMP_TYPE	SPT	Standard Penetration Test	
SAMP_TYPE	U	Undisturbed push in sample	
SAMP_TYPE	W	Water sample	
SIGN	<	<	
SIGN	<=	<=	
SIGN	<>	<>	
SIGN	=	=	
SIGN	>	>	
SIGN	>=	>=	
SOLC	D	dense	
SOLC	F	firm	
SOLC	H	hard	
SOLC	L	loose	
SOLC	MD	medium dense	
SOLC	S	soft	
SOLC	St	stiff	
SOLC	VD	very dense	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
SOLC	VL	very loose	
SOLC	VS	very soft	
SOLC	VSt	very stiff	
SOLM	D	dry	
SOLM	M	moist	
SOLM	W	wet	
STAT	0	Preliminary, not for internal or external use	
STAT	1	Checked, internal use only	
STAT	-1	For information	
STAT	2	Draft, release to client as draft	
STAT	3	Final, release to client as final	
STCI_MSYS	0	Electronic	
STCI_MSYS	1	mechanical discontinue	
STCI_MSYS	2	mechanical continue	
STCG_TERM	0	end of test reached	
STCG_TERM	1	maximum penetration force	
STCG_TERM	2	cone value	
STCG_TERM	3	maximum friction value	
STCG_TERM	4	maximum PPT value	
STCG_TERM	5	maximum inclination value	
STCG_TERM	6	obstacle	
STCG_TERM	7	danger buckling	
STCG_TYPE	C	Cone resistance	
STCG_TYPE	CON	Electrical Conductivity	
STCG_TYPE	F	Local unit side friction resistance	
STCG_TYPE	LIF	Laser Induced Fluorescence	
STCG_TYPE	M	Magnetic Flux	
STCG_TYPE	MIP	Membrane Interface Probe	
STCG_TYPE	MLF	Mercury Lamp Fluorescence	
STCG_TYPE	NG	Natural Gamma Radiation	
STCG_TYPE	PH	pH reading	
STCG_TYPE	RED	Redox potential reading	
STCG_TYPE	S	Cone Inclination	
STCG_TYPE	SE1	Seismic Cone - Single array	
STCG_TYPE	SE2	Seismic Cone - Single dual array	
STCG_TYPE	SM	Soil Moisture	
STCG_TYPE	SXY	Cone Inclination X & Y	
STCG_TYPE	T	Temperature	
STCG_TYPE	W1	Face Porewater pressure	

ABBR_HDNG	ABBR_CODE	ABBR_DESC	Revision
STCG_TYPE	W2	Shoulder Porewater pressure	
STCG_TYPE	W3	Top of Sleeve Porewater pressure	
STCG_ZLOC	BB	Bottom of borehole	
STCG_ZLOC	S	Surface	
STCG_ZLOC	SB	Sea bottom	
TRIG_TYPE	CD	Consolidated drained (single stage)	
TRIG_TYPE	CDM	Consolidated drained (multi-stage)	
TRIG_TYPE	CU	Consolidated undrained with pwp measurement (single stage)	
TRIG_TYPE	CUM	Consolidated undrained with pwp measurement (multi-stage)	
TRIG_TYPE	UU	Unconsolidated quick undrained (single stage)	
TRIG_TYPE	UUM	Unconsolidated quick undrained (multi-stage)	
TRIG_TYPE	UUR	Unconsolidated quick undrained (single stage) remoulded	
WETH_GRAD	EW	Extremely weathered	
WETH_GRAD	F	fresh	
WETH_GRAD	HW	highly weathered	
WETH_GRAD	MW	moderately weathered	
WETH_GRAD	SW	slightly weathered	

A2.6. CODE - Chemical Testing Codes (CNMT_TYPE)

CODE_CODE	CODE_DESC	Revision
1112TCE	1,1,1,2 - Tetrachloroethane	
111TCE	1,1,1 - Trichloroethane	
1122TCE	1,1,2,2 - Tetrachloroethane	
112T122T	1,1,2 - Trichloro - 1,2,2 - Trifluoroethane	
112TCE	1,1,2 - Trichloroethane	
11BIP	1,1 - Biphenyl	
11DCP	1,1 - Dichloropropene	
11DEA	1,1 - Dichloroethane	
11DEE	1,1 - Dichloroethene	
1234TCB	Benzene, 1,2,3,4 - tetrachloro-	New
123TCB	1,2,3 - Trichlorobenzene	
123TCP	1,2,3 - Trichloropropane	
124TCB	1,2,4 - Trichlorobenzene	
124TMB	1,2,4 - Trimethylbenzene	
12BIP	1,2 - Biphenyl	
12D3C	1,2 - Dibromo - 3 - Chloropropane	
12DB	1,2 - Dichlorobenzene	
12DEA	1,2 - Dichloroethane	
12DEE	cis 1,2 - Dichloroethene	
12DIB	1,2 - Dibromoethane	
12DP	1,2 - Dichloropropane	
12DPH	1,2 - Diphenylhydrazine	New
135TCB	1,3,5 - Trichlorobenzene	
135TMB	1,3,5 - Trimethylbenzene	
13DB	1,3 - Dichlorobenzene	
13DCPE	cis 1,3 - Dichloropropene	
13DP	1,3 - Dichloropropane	
14DB	1,4 - Dichlorobenzene	
1NAP	1 - Naphthylamine	New
1NAPHOLS	1 - Naphthol	New
1NN	1 - Nitronaphthalene	New
22DP	2,2 - Dichloropropane	
2346TCP	2,3,4,6 - Tetrachlorophenol	
245TCP	2,4,5 - Trichlorophenol	
246TCP	2,4,6 - Trichlorophenol	
24DCP	2,4 - Dichlorophenol	

CODE_CODE	CODE_DESC	Revision
24DDT	2,4 ddt	<i>New</i>
24DMP	2,4 - Dimethylphenol	
24DNP	2,4 - Dinitrophenol	
24DNT	2,4 - Dinitrotoluene	
26DCBN	2,6 - Dichlorobenzonitrile	<i>New</i>
26DCP	2,6 - Dichlorophenol	
26DNT	2,6 - Dinitrotoluene	
2BUT	2 - Butanone	
2CNAP	2 - Chloronaphthalene	
2CP	2 - Chlorophenol	
2CT	2 - Chlorotoluene	
2FBP	2 - Fluorobiphenol	<i>New</i>
2FP	2 - Fluorophenol	<i>New</i>
2MNAP	2 - Methylnaphthalene	
2MP	2 - Methylphenol	
2NA	2 - Nitroaniline	
2NAP	2 - Naphthylamine	<i>New</i>
2NAPHOLS	2NAPHOLS	<i>New</i>
2NN	2 - Nitronaphthalene	<i>New</i>
2NP	2 - Nitrophenol	
2PIC	2 - Picoline	<i>New</i>
33DCBZDNE	3,3'-Dichlorobenzidine	
34MP	3,4 - Methylphenol	
3MCA	3 - Methylcholanthrene	<i>New</i>
3NA	3 - Nitroaniline	
44DDD	4,4 - DDD	
44DDE	4,4 - DDE	
44DDT	4,4 - DDT	
46DN2MP	4,6-Dinitro-2-methylphenol	
4ABP	4 - Aminobiphenyl	<i>New</i>
4BFB	4 - Bromofluorobenzene	<i>New</i>
4BPPE	4 - Bromophenylphenyl ether	
4C3MP	4 - Chloro - 3 - Methylphenol	
4CA	4 - Chloroaniline	
4CB	Tetrachlorobenzene (Total)	
4CP	4 - Chlorophenol	
4CPPE	4 - Chlorophenyl phenyl ether	
4CT	4 - Chlorotoluene	
4IPT	4 - Isopropyltoluene	

CODE_CODE	CODE_DESC	Revision
4MP	4 - Methylphenol	
4NA	4 - Nitroaniline	
4NP	4 - Nitrophenol	
4TCP	Tetrachlorophenol (Total)	
712DMBA	7,12 - Dimethylbenz(a)anthracene	New
A1016	Aroclor 1016	
A1221	Aroclor 1221	
A1232	Aroclor 1232	
A1242	Aroclor 1242	
A1248	Aroclor 1248	
A1254	Aroclor 1254	
A1260	Aroclor 1260	
A1262	Aroclor 1262	
ABC	Anaerobic bacteria count	
ABHC	alpha - BHC	
ACACID	Acetic Acid	New
ACALW	Acidity/Alkalinity	
ACET	Acetaldehyde	
ACETPH	Acetophone	New
ACHL	Alpha chlordane	New
ACIDW	Acidity as Calcium carbonate	
ACNAP	Acenaphthylene	
ACNEN	Acenaphthene	
ACRES	Acid reserve	New
ADSC	Aerobic dip slide colonies	
AG	Silver	
AHCH	alpha - HCH	
AIDW	Anionic detergents	
AIMS	Acid insoluble matter	
AL	Aluminium	
ALCO	Alcohols	
ALD	Aldrin	
ALKBW	Alkalinity - Bicarbonate as CaCO3	
ALKCW	Alkalinity - Carbonate as CaCO3	
ALKRES	Alkalinity reserve	New
AMET	Ametryn	
AMMNS	Ammoniacal nitrogen	
AMMOW	Ammonia	
ANC4	Acid neutralisation capacity at pH 4	New

CODE_CODE	CODE_DESC	Revision
ANC7	Acid neutralisation capacity at pH 7	<i>New</i>
ANIL	Aniline	<i>New</i>
ANTHN	Anthracene	
ANTHNN	Anthanthrene	
ANTHS	Anthrax (Presence of)	
AS	Arsenic	
ASB	Asbestos	
ASH	Ash content	<i>New</i>
ATZ	Atrazine	
AU	Gold	<i>New</i>
AVF	Aviation fuel	
AZB	Azobenzene	
AZPE	Azinphos-ethyl	
AZPM	Azinphos-methyl	
B	Boron	
B2CEE	bis (2 - chloroethoxy) ether	
B2CEM	bis (2 - chloroethoxy) methane	
B2CEYE	bis (2 - chloroethyl) ether	
B2CIPE	bis (2 - chloroisopropyl) ether	
B2EHP	bis (2 - ethylhexyl) phthalate	
BA	Barium	
BBHC	beta - BHC	
BBP	Butyl benzyl phthalate	
BE	Beryllium	
BENA	Benzo (a) anthracene	
BENAP	Benzo (a) pyrene	
BENB	Benzo (b) fluoranthene	
BENEP	Benzo (e) pyrene	
BENGI	Benzo (ghi) perylene	
BENJ	Benzo(j)fluoranthene	<i>New</i>
BENK	Benzo (k) fluoranthene	
BENZ	Benzene	
BENZACID	Benzoic Acid	
BENZALC	Benzyl alcohol	
BENZID	Benzidine	<i>New</i>
BHCH	beta - HCH	
BI	Bismuth	<i>New</i>
BICAW	Bicarbonate	
BICPB	Bichlorobiphenyl	

CODE_CODE	CODE_DESC	Revision
BICS	Bicarbonate	
BIOXW	Biochemical oxygen demand	
BOL	Bolstar	New
BPHENYL	Biphenyl	
BROMBE	Bromobenzene	
BROMCM	Bromochloromethane	
BROMF	Bromoform	
BROMM	Bromomethane	
BROMO	Bromodichloromethane	
BROMW	Bromide	
BUTA	Butanoic acid, 1 - methyloctyl ester	
BUTP	butyl phenol	
C13DP	cis - 1,3 - Dichloropropane	
CA	Calcium	
CACOS	Calcium carbonate	
CALOS	Calorific value	
CARB	Carbaryl	
CARBON	Carbon	
CARF	Carbofuran	
CAT	Carey screening test	New
CATE	Catechol	
CATIS	Cation exchange capacity	
CATW	Cationic detergents	
CBENZ	Chlorobenzene	
CBZ	Carbazole	
CD	Cadmium	
CDS	Carbon Disulphide	
CETH	Chloroethane	
CFM	Chloroform	
CFP	Chlorfenvinphos	
CHDW	Chlorine demand	
CHETH	Chloroethene	
CHLORD	Chlordane	New
CHLOW	Chlorine	
CHOXW	Chemical oxygen demand	
CL	Chloride	
CLHYS	Chlorinated hydrocarbons	
CLTHNIL	Chlorothalonil	New
CMN	Chloromethane	

CODE_CODE	CODE_DESC	Revision
CN	Cyanide	
CNA	Chloronitroaniline	
CNAP	Chloronaphthalene	
CNCOMP	Complex Cyanide	
CnnCnnAL	TPH bandings Aliphatic (where nn are the carbon ranges)	New
CnnCnnAR	TPH bandings Aromatic (where nn are the carbon ranges)	New
CO	Cobalt	
COALS	Coal tar derivatives	
COLO	Coliform organisms	
COMBS	Combustibility	
CONDW	Electrical conductivity	
CORN	Coronene	New
COS	Carbonate	
COUM	Coumaphos	New
CPERF	C. Perfringens	
CPHE	Chlorophenols (Total)	
CPYR	Chlorpyrifos	
CR	Chromium	
CRES	Cresols	
CRVI	Hexavalent Chromium	
CRYN	Chrysene	
CTET	Carbon tetrachloride	
CU	Copper	
CYPYRN	Cyclopenta (cd) pyrene	
DBE	Dibromoethane	
DBF	Dibenzofuran	
DBFM	Dibromofluoromethane	New
DBHC	delta - BHC	
DBT	Dibutyl tin	
DCFM	Dichlorodifluoromethane	
DCHLB	Dichlorobenzene (Total)	
DCPHE	Dichlorophenol (Total)	
DCV	Dichlorvos	
DECA	Decane	
DECPB	Decachlorobiphenyl	
DEGLW	Diethylene Glycol	New
DEMO	Demeton - O	New
DEMS	Demeton - S	
DEP	Diethyl phthalate	

CODE_CODE	CODE_DESC	Revision
DHCH	delta - HCH	New
DIABN	Dibenzo (ah) anthracene	
DIAZ	Diazinon	
DIBM	Dibromochloromethane	
DIBROM	Dibromomethane	
DICM	Dichloromethane	
DIEL	Dieldrin	
DIMP	Dimethyl phthalate	
DIMPH	Dimethylphenols	
DIPA	Diphenylamine	New
DISS	Total dissolved solids	
DMAAB	Dimethylaminoazobenzene	New
DMETH	Dimethoate	
DNBP	Di-n-butyl phthalate	
DNOP	Di - n - octyl phthalate	
DO	Dissolved oxygen	
DOCS	Docosane	
DOD	Dodecane	
DOTC	Dotriacontane	
DPE	Diphenyl ether	
DRO	Diesel range organics	
DSOL	Dry solids	New
DST	Disulfoton	
EGLW	Ethylene glycol	
EHW	Electrolytic potential	
EICO	Eicosane	
ENDALD	Endrin aldehyde	
ENDOI	Endosulfan I	
ENDOII	Endosulfan II	
ENDR	Endrin	
ENDRK	Endrin ketone	New
ENDSUL	Endosulfan sulphate	
EPAR	Ethyl parathion	
EPH	Total EPH Aliphatic/Aromatic	New
ESCC	Escherichia Coli	
ETHOP	Ethoprop	New
ETHYL	Ethylbenzene	
ETRP	Etrimphos	
FCAM	Furancarboxaldehyde methyl-	

CODE_CODE	CODE_DESC	Revision
FCOL	Faecal Coliforms	
FE	Iron	
FENCPC	Fenchlorphos	<i>New</i>
FENT	Fenthion	
FERCS	Ferricyanide	
FERFS	Ferro-ferricyanide	
FLN	Fluorene	
FLNN	Fluoranthene	
FLS	Fluoride	
FORMA	Formaldehyde	
FST	Fensulfothion	<i>New</i>
FSTP	Faecal Streptococci	
FTT	Fenotrothion	
FTU	Formazin Turbidity Units	
GA	Gallium	<i>New</i>
GBHC	gamma - BHC	
GBUT	Butane	
GCARD	Carbon dioxide	
GCARM	Carbon monoxide	
GCHL	Gamma chlordane	<i>New</i>
GDIES	Diethyl sulphide	
GE	Germanium	<i>New</i>
GETHA	Ethane	
GETHE	Ethene	
GHCH	gamma - HCH	
GHEL	Helium	
GHYD	Hydrogen	
GHYDC	Hydrogen cyanide	
GHYDS	Hydrogen sulphide	
GMETH	Methane	
GNIT	Nitrogen	
GOX	Oxygen	
GPENT	Pentane	<i>New</i>
GPROP	Propane	
GPS	Gram Positive Spore	
GRO	Gasoline Range Organics	<i>New</i>
GSATH	Saturated hydrocarbons	
GUTH	Guthion	<i>New</i>
HALO	Halogenated compounds	

CODE_CODE	CODE_DESC	Revision
HARDW	Calcium hardness as Calcium carbonate	
HCCP	Hexachlorocyclopentadiene	
HCE	Hexachloroethane	
HCHLB	Hexachlorobenzene	
HDTS	Hydrocarbons (Total)	
HEPC	Heptachlor	
HEPD	Heptadecane	
HEPEPO	Heptachlor epoxide	
HEPP	Heptenophos	
HEPPB	Heptachlorobiphenyl	
HEPTE	Heptene	
HEXAC	Hexacosane	
HEXBUT	Hexachlorobutadiene	
HEXD	Hexadecane	
HEXPB	Hexachlorobiphenyl	
HG	Mercury	
HYDROX	Hydroxide	<i>New</i>
HYDRS	Aromatic hydrocarbons	
IGNIS	Loss on ignition	
IN	Indium	<i>New</i>
INDP	Indeno (1,2,3 - cd) pyrene	
IODP	Iodofenphos	
IONIC	Ionic balance	<i>New</i>
IOW	Iodide	
IPB	iso - Propylbenzene	
IPP	Isopropyl phenol	
ISOD	Isodrin	
ISOP	Isophorone	
K	Potassium	
LANGW	Langelier Index	
LEG	Legionella bacterium	
LI	Lithium	
LIME	Lime content	<i>New</i>
LIND	Lindane	
MALTH	Malathion	
MANE	Maneb (ACN)	
MCHLB	Monochlorobenzene (Total)	
MCPHE	Monochlorophenol (Total)	
MEK	Methyl ethyl ketone	<i>New</i>

CODE_CODE	CODE_DESC	Revision
MERP	Merphos	<i>New</i>
METC	Methacriphos	
METCL	Methylene chloride	<i>New</i>
METHP	Methylphenols	
METP	Methyl parathion	
METXC	Methoxychlor	
MEVP	Mevinphos	
MG	Magnesium	
MN	Manganese	
MO	Molybdenum	
MOILS	Mineral oils	
MOIST	Moisture content	
MONCR	Monocrotophos	<i>New</i>
MONPB	Monochlorobiphenyl	
MPOXYL	m,p,o Xylenes	<i>New</i>
MTBE	MTBE	
MXYL	m & p - Xylene	
NA	Sodium	
NAL	Naled	<i>New</i>
NAP12D	Naphthalene 1,2 - dimethyl -	
NAP1M	Naphthalene 1 - methyl -	
NAPHOLS	Naphthols	
NAPTHH	Naphthalene	
NBUT	n - Butylbenzene	
NEUT	Neutralising value	<i>New</i>
NI	Nickel	
NIDW	Nonionic detergents	
NIIS	Nitrite	
NIRS	Nitrate	
NITB	Nitrobenzene	
NITBD5	Nitrobenzene-D5	<i>New</i>
NITRS	Kjeldahl nitrogen (Total)	
NNDBA	n - nitrosodibutylamine	<i>New</i>
NNDMA	n - nitrosodimethylamine	<i>New</i>
NNDPA	N - Nitrosodiphenylamine	
NNNP	n - Nitrosodi - n - Propylamine	
NNPP	n - nitrosopiperidine	<i>New</i>
NONP	Nonylphenol	
NONPB	Nonachlorobiphenyl	

CODE_CODE	CODE_DESC	Revision
NPB	n - Propylbenzene	
NSOS	NSO/Resins	
OCP	o - Cresol	
OCTC	Octacosane	
OCTD	Octadecane	
OCTPB	Octachlorobiphenyl	
OMS	Organic matter	
OPDDE	op - DDE	<i>New</i>
OPDDT	op - DDT	<i>New</i>
OPTDE	op - TDE	<i>New</i>
ORGCW	Total organic carbon	
ORGS	Organosulphur compounds	
ORTHS	Orthophosphate	
OTOL	o - Toluidine	<i>New</i>
OXYL	o - Xylene	
PA	Palladium	<i>New</i>
PAH_EPA16	Total (USEPA16) PAHs	<i>New</i>
PAHS	PAH (Total)	
PARTH	Parathion	
PB	Lead	
PBLS	Organo lead	
PCB101S	PCB101	
PCB105S	PCB 105	<i>New</i>
PCB114S	PCB 114	<i>New</i>
PCB118S	PCB118	
PCB123S	PCB 123	<i>New</i>
PCB138S	PCB138	
PCB153S	PCB153	
PCB156S	PCB156	
PCB157S	PCB157	<i>New</i>
PCB167S	PCB167	<i>New</i>
PCB169S	PCB169	<i>New</i>
PCB180S	PCB180	
PCB189S	PCB189	<i>New</i>
PCB28S	PCB28	
PCB31S	PCB31	
PCB52S	PCB52	
PCB77S	PCB77	<i>New</i>
PCB81S	PCB81	<i>New</i>

CODE_CODE	CODE_DESC	Revision
PCBS	Polychlorinated biphenyls	
PCHLB	Pentachlorobenzene (Total)	
PCP	p - Cresol	
PENDM	Pendimethalin	New
PENPB	Pentachlorobiphenyl	
PERM	Permethrin	New
PGLW	Propylene glycol	
PHE	Phenol	
PHEIDX	Phenol Index	
PHEMS	Phenol (Monohydric)	
PHEN	Phenacetin	New
PHENPH	Phenyl phosphonoethioic ac	New
PHETS	Phenol (Total)	
PHOR	Phorate	
PHOS	Phosphate	
PHOTS	Phosphorous	
PHS	pH	
PHTH	Phthalates (Total)	
PIRIM	Pirimiphos	
PISO	p-isopropyltoluene	New
PNCP	Pentachlorophenol	
PNEU	L Pneumophila bacterium	
POSPM	Phosphamidon	
PPDDE	pp - DDE	New
PPDDT	pp - DDT	New
PPENN	Phenanthrene	
PPTDE	ppTDE	
PRO	Petrol range organics	
PROM	Prometryn	
PROME	Prometon	New
PROPP	Propetamphos	
PROPZ	Propazine	
PROPZDE	Propyzamide	New
PT	Platinum	
PYR	Pyridine	
PYRN	Pyrene	
RDN	Radon	
REPTW	Redox potential	
RESO	Resorcinol	

CODE_CODE	CODE_DESC	Revision
RSETT	Rapid settleable solids	<i>New</i>
RU	Rubidium	<i>New</i>
SAL	Salinity	<i>New</i>
SALM	Salmonellae excluding S typhi	
SAPOIL	Saponifiable Oil	<i>New</i>
SB	Antimony	
SE	Selenium	
SECB	sec - Butylbenzene	
SETT	Settleable solids	<i>New</i>
SI	Silicon	
SILS	Silica	
SIMT	Simetryne	
SIMZ	Simazine	
SN	Tin	
SO3	Sulphate as SO3	
SO4	Sulphate as SO4	
SOLVS	Solvent extractable matter	
SR	Strontium	
STONE	Stone content	
STY	Styrene	
SULES	Sulphur	
SULFT	Sulfotepp	<i>New</i>
SULIS	Sulphide	
SUSP	Total suspended solids	
T12DE	Trans - 1,2 - Dichloroethene	
T13DP	Trans - 1,3 - Dichloropropene	
TAA	Total actual acidity	<i>New</i>
TBM	Tribromomethane	
TBT	Tributyl tin	
TCC	Total Coliform count	
TCE	Tetrachloroethane	
TCEP	TCEP	<i>New</i>
TCFE	Trichlorofluoromethane	
TCHL	Trichloronate	<i>New</i>
TCHLB	Trichlorobenzene (Total)	
TCHLORD	Trans Chlordane	<i>New</i>
TCOL	Thermotolerant Coliforms	
TCONT	Triacontane	
TCPHE	Trichlorophenol (Total)	

CODE_CODE	CODE_DESC	Revision
TCPP	TCPP	<i>New</i>
TE	Tellurium	
TECZ	Tecnazene	
TERB	Terbutryn	
TERPH	Terphenyl D14	<i>New</i>
TERTB	tert - Butylbenzene	
TETC	Tetrachloroethene	
TETCV	Tetrachlorovinphos	<i>New</i>
TETEP	Tetraethylpyrophoshate	<i>New</i>
TETPB	Tetrachlorobiphenyl	
TETRC	Tetracosane	
TETRD	Tetradecane	
THF	Tetrahydrofuran	
THIOS	Thiocyanate	
THT	Tetrahydrothiophene	
THW	Total hardness	
TI	Titanium	
TIC	Total inorganic carbon	
TIOS	Organo tin	
TL	Thallium	
TMPHE	Trimethylphenols	
TOK	Tokuthion	<i>New</i>
TOL	Toluene	
TOLD8	Toluene-D8	<i>New</i>
TONIW	Total oxidised nitrogen	
TOX	Toxaphene	<i>New</i>
TPA	Total potential acidity	<i>New</i>
TPC	Total plate count	
TPH	Total petroleum hydrocarbons	
TPHALI	Total Aliphatic	<i>New</i>
TPHARO	Total Aromatic	<i>New</i>
TPT	Triphenyl tin	
TR3MS	Trichloromethane	
TR4MS	Tetrachloromethane	
TRANSP	Trans-Permethrin	<i>New</i>
TRCE	Trichloroethene	
TRICPB	Trichlorobiphenyl	
TRIDIME	Triadimefon	<i>New</i>
TRIF	Trifluralin	

CODE_CODE	CODE_DESC	Revision
TRILLTE	Tri-allate	New
TRIZ	Trietazine	
TRIZP	Triazophos	
TTC	Tetratriacontane	
TURBW	Turbidity N T U	
TVC	Total viable count	
UNSAPOIL	Unsaponifiable Oil	New
UREA	Urea	
V	Vanadium	
VCHL	Vinyl chloride	
VFATW	Volatile fatty acids	
VOLS	Volatiles	
VSOLW	Volatile suspended solids	
W	Tungsten	New
XEP	Xylenols & Ethylphenols	
XYL	Xylenols	
XYLENES	Xylenes	New
ZN	Zinc	
ZR	Zirconium	New

A2.7. UNIT – Definition of <UNITS>, CNMT_UNIT and ?ICCT_UNIT

UNIT_UNIT	UNIT_DESC	Revision
Length		
mm	millimetre	
cm	centimetre	
m	metre	
km	kilometre	
in	inch	
ft	foot	
yd	yard	
mi	mile	
Area		
mm2	square millimetres	New
cm2	square centimetre	
m2	square metre	
km2	square kilometre	
hect	hectare	
in2	square inch	
ft2	square foot	
yd2	square yard	
mi2	square mile	
acre	acre	
Volume		
cm3	cubic centimetre	
m3	cubic metre	
l	litre	
in3	cubic inch	
ft3	cubic foot	
yd3	cubic yard	
gal	gallon	
Force		
N	newton	Rev
kN	kilonewton	Rev
MN	meganewton	Rev
lbf	pounds force	
tonf	tons force	
kgf	kilograms force	
Mass		
g	gram	
kg	kilogram	
Mg	megagram (tonne)	
lb	pound	
t	tonne (megagram)	Rev
kips	kilopound	

UNIT_UNIT	UNIT_DESC	Revision
Pressure		
kN/m2	kilonewtons per square metre	Rev
kPa	kilopascal	Rev
MN/m2	meganewtons per square metre	Rev
MPa	megapascal	Rev
GPa	gigapascal	Rev
psi	pounds per square inch	
psf	pounds per square foot	
ksi	kips per square inch	
ksf	kips per square foot	
tsf	tons per square foot	
kg/cm2	kilograms per square centimetre	
bar	bar	
Density		
kN/m3	kilonewtons per cubic metre	Rev
Mg/m3	megagrams per cubic metre	
t/m3	tonnes per cubic metre	New
pcf	pounds per cubic foot	
g/cm3	grams per cubic centimetre	
kg/m3	kilograms per cubic metre	
Time		
s	second	
min	minute	
hr	hour	
day	day	
month	month	
yr	year	
hhmm	hours minutes	
hhmmss	hours minutes seconds	
hhmmss.ss	hours minutes seconds milliseconds	New
dd/mm/yyyy	day month year	
Velocity		
mm/s	millimetres per second	
mm/min	millimetres per minute	New
cm/s	centimetres per second	
m/s	metres per second	
km/hr	kilometres per hour	
ft/min	feet per minute	
mph	miles per hour	
Flow		
l/s	litres per second	
ml/min	millilitres per minute	New
l/min	litres per minute	
m3/s	cubic metres per second	
gpm	gallons per minute	

UNIT_UNIT	UNIT_DESC	Revision
mgd	million gallons per day	
cfs	cubic feet per second	
uL	Lugeon	New
Concentration		
ug/l	micrograms per litre	
mg/l	milligrams per litre	
g/l	grams per litre	
ug/kg	micrograms per kilogram	
mg/kg	milligrams per kilogram	
ppb	parts per billion	
ppm	parts per million	
ppmv	parts per million by volume	New
%	percentage	
% dry weight	percentage of dry weight	
%vol	percentage volume	
colonies/ml	colonies per millilitre	
colonies/l	colonies per litre	
CFU/ml	colony forming units per millilitre	
CFU/g	colony forming units per gram	
MPN/ml	most probable number per millilitre	
MPN/100ml	most probable number per 100 millilitres	
MPN/l	most probable number per litre	
Miscellaneous		
mm/g	millimetre per gram	New
m2/MN	square metres per meganewton	Rev
m2/kN	square metres per kilonewton	New
ft2/t	square feet per ton	
m2/yr	square metres per year	
ft2/yr	square feet per year	
ft2/day	square feet per day	
kg/m	kilograms per metre	New
Nm	Newton metre	
deg	degree (angle)	
deg azimuth	degree azimuth	New
deg/m	Degree per minute	New
DegC	degree Celsius	
DegF	degree Fahrenheit	
pF	log10 of the suction expressed in cm of water	New
%pF	percentage per log10 of the suction expressed in cm of water	New
%strain/pF	percentage strain per log10 of the suction expressed in cm of water	New
uV	microvolt	Rev
mV	millivolt	Rev
ohm	ohm	Rev
ohm-cm	ohm centimetre	Rev
ohm-m	ohm metre	New

UNIT_UNIT	UNIT_DESC	Revision
uS/cm	microsiemens per centimetre	<i>Rev</i>
kJ/kg	kilojoules per kilogram	<i>Rev</i>
counts/s	counts per second	
Yes	Yes	
No	No	
Wb	weber	<i>New</i>
nT	nanotesla	<i>New</i>

APPENDIX B

Summary of Amendments in AGS 3.1 RTA 1.1

CMPG

Deleted ?CMPG_MMC

Added ?CMPG_TMC

DISC

Revised DISC_PLAN

Revised DISC_RGH

Revised DISC_WETH

GEOL

Added ?GEOL_LEGB

Revised GEOL_GEOL

Revised GEOL_GEO2

Deleted ?GEOL_ORG

Added ?GEOL_ORG1

Added ?GEOL_ORGC

Added ?GEOL_ORG2

Added ?GEOL_BGS

?GORA

Added ?GORA_C

Deleted ?GORA_CQ1, ?GORA_CS1, ?GORA_CP1, ?GORA_CC, ?GORA_CQ2, ?GORA_CS2, ?GORA_CP2

?GORB

Added ?GORB_C

Deleted ?GORB_CQ1, ?GORB_CS1, ?GORB_CP1, ?GORB_CC, ?GORB_CQ2, ?GORB_CS2, ?GORB_CP2

?GOSA

Added ?GOSA_C

Deleted ?GOSA_CQ1, ?GOSA_CS1, ?GOSA_CP1, ?GOSA_CC, ?GOSA_CQ2, ?GOSA_CS2, ?GOSA_CP2

?GOSB

Added ?GOSB_C

Deleted ?GOSB_CQ1, ?GOSB_CS1, ?GOSB_CP1, ?GOSB_CC, ?GOSB_CQ2, ?GOSB_CS2, ?GOSB_CP2

Deleted GRAD

?GRAG

Deleted ?GRAG_TESN

Added ?GRAT

HOLE

Deleted ?HOLE_PHOT

Deleted ?HOLE_DBCB

Revised ?HOLE_EXM

ICBR

Added ?ICBR_CRED

?ICVI

Added ?ICIV_CRED

?IDEN

Added ?IDEN_METH

Added ?IDEN_MMC

Deleted ?IDEN_TDEN

Deleted ?IDEN_TMC

Added ?IDEN_CRED

?IFID

Added ?IFID_CRED

?IINF

Added ?IINF_CRED

?IPID

Added ?IPID_CRED

IPRM

Added ?IPRM_CRED

IRDX

Added ?IRDX_CRED

IRES

Added ?IRES_CRED

IVAN

Added ?IVAN_CRED

Added ?LDYN

?LMOC

Added ?LMOC_MC

Deleted ?LMOC_NMC

Added ?LSTG

Added ?LSTT

Added ?PMTD

Added ?PMTG

Added ?PMTL

Deleted ?PRTD

Deleted ?PRTG

Deleted ?PRTL

?STCG

Added ?STCG_CRED

Pick lists changed

GEOL_LEG

GEOL_ORG

GO_C

GO_CQ (Deleted)

GOR_NAM

HDPH_DEM

IMAG_TYPE

PRTD_TYPE (Deleted)

PMTG_TYPE (Added)