CTBTO PREPARATORY COMMISSION | preparatory commission for the comprehensive nuclear-test-ban treaty organization

Distribution.: GENERAL
CTBT/IDCDB/DEVLAN
29 Jan 2009 19:21:21
English

The IDC Database Schema Documentation
Server: DEVELOPMENT

This document describes the IDC SHI and RN database schema in use on 29 Jan 2009.

Summary

This document describes the current Seismic-Hydroacoustic-Infrasonic (SHI) database Schema in use at the International Data Centre (IDC) in Vienna, Austria. This document describes the schema used in the IDC databases, including relationships between tables, table descriptions, and definitions of the table columns. This document does not describe the specific location and general use of these tables at the IDC or how to manipulate them to obtain information.

Document history

Note:

This history refers only to changes to the *document template, not the underlying database objects*. Please refer to the section entitled Database Documentation Changes, which lists the object type, name and last modification date for all SHI and RN *database objects* modified since this document was last produced.

Version	Date	Author	Description
1.0	23-Nov-2007	Goran Mužak	Initial version of IDCDBDOC template
1.1	13-Dec-2007	Goran Mužak	Added Primary Keys (PK) from "theoretical" lookup table, to compensate for the lack of implemented PK's in the SHI part of the schema.
1.2	14-Dec-2007	Goran Mužak	Reworked presentation of column information sections to optimise use of space. Reduced font size to 10 point, group Storage type, Unit, NA value, External and Nullable one one line.
1.3	11-Feb-2008	Goran Mužak	Re-worked handling of Primary Key constraints. Now documents only Primary Keys that actually *exist* in the database and not "theoretical" ones. Added section "Packages and Procedures". Removed redundant "Type: TABLE" entry from Table descriptions; views will now be distinguished in the Table Name line as "TABLE_NAME (VIEW)"
1.4	13-Feb-2008	Goran Mužak	Negative indent added for Heading 3 style. Table names will now be in UPPERCASE, column names in lowercase throughout the document, except in the Column Descriptions section numbered headings, where column names will be UPPERCASE. Unnecessary spacing below line removed from the columns list in the table details section.
1.5	22-Jan-2008	Goran Mužak	Extended References list to match IDC-5.1.1 rev.5. Fully-qualified "Tables" list in the column descriptions with the SCHEMA.TABLE names, ordered by table_name, to identify which tables correspond to the column description that follows.
1.6	25-Feb-2008	Goran Mužak	Re-worked the fully-qualified "Tables" list in the column descriptions to order by TABLE (SCHEMA) and correct formatting of adjacent hyperlinks to prevent "merging" of adjacent links. *Final version of the Template under Phase Two of the IDCDBDOC Contract.*

1.7	17-Jul-2008	Tim Hampton	Incorporated feedback from reviewers of the documentation (at IDC and UK NDC).
1.8	22-Jul-2008	Tim Hampton	Additional RN comments. Made capitalisation of comments consistent (“Title” case).

Contents

1. About this document....5
1.1. Purpose....5
1.2. Scope....5
1.3. Audience....5
1.4. Related Information....5
1.5. Using this Document....6
1.6. Conventions....7
1.7. Dates and Times....8
1.8. Oracle Data Types....8
2. SHI Entity Relationships....10
2.1. Overview....10
2.2. Column Relationships....10
2.3. Table Categories....12
2.4. Fundamental Tables....12
2.5. Summary of Tables and Keys....13
3. SHI Objects Description....33
3.1. SHI Table Descriptions....33
3.2. SHI Column Descriptions....133
3.3. SHI Trigger Descriptions....343
3.4. SHI Index Descriptions....347
3.5. SHI Synonym Descriptions....359
4. Radionuclide entity Relationships....359
4.1. Overview....359
4.2. Radionuclide Tables....359
5. Radionuclide Object Descriptions....365
5.1. Radionuclide Table Descriptions....365
5.2. Radionuclide Column Descriptions....543
5.3. Radionuclide Trigger Descriptions....743
5.4. Radionuclide Index Descriptions....844
5.5. Radionuclide Synonym Descriptions....851
5.6. Radionuclide Foreign Key Descriptions....856
6. functions, procedures and packages....860
6.1. Functions....860
6.2. Procedures....860
6.3. Packages....860
7. Database documentation changes....860
7.1. SHI Schema Object Changes....860
7.2. Radionuclide Schema Objects Changes....860
8. REFERENCES....860
9. GLOSSARY....860
10. List of Figures....860

1. ABOUT THIS DOCUMENT

This chapter describes the organization and content of the document and includes the following topics:

- Purpose
- Scope
- Audience
- Related information
- Using this Document

1.1. Purpose

This document describes the International Data Centre (IDC) database schema. The document describes the database schema in use on 29-Jan-2009.

1.2. Scope

This document describes the SHI and RN schema used in the IDC databases. The schema includes relationships between tables, table descriptions, and definitions of the table columns.

This document does not describe the specific location and general use of these tables at the IDC or how to manipulate them to obtain information. In most cases it provides a recommendation for the format of each column in external file representations of the tables, however, utilities are available for exporting the table content in a variety of formats and users are free to select the most appropriate for their requirements.

1.3. Audience

This document is intended for software engineers, scientists, processing engineers, and anyone who needs to interact with the SHI and RN databases at the IDC.

1.4. Related Information

This document supersedes all other documents describing the IDC SHI and RN Database Schema dated prior to 29-Jan-2009.

External formats of all columns used with SHI and RN data are described in SHI Column Descriptions on page 132.

The following documents provide information and instructions for retrieving data from the IDC databases:

- Database Tutorial [IDC-5.1.2]
- Configuration of PIDC Databases [IDC-5.1.3_Rev1]

See References on page 812 for a listing of all the sources of information consulted in preparing this document.

1.5. Using this Document

This document is part of the overall documentation architecture for the International Data Centre (IDC). It is part of the User Guides document category, which provides information relevant to understanding IDC processing.

This document is organized as follows:

- **SHI Entity Relationship**

  This chapter describes the relationships between the SHI database tables.

- **SHI Table Descriptions**

  This chapter describes each table in the SHI database schema (in alphabetical order). It includes information about the category to which the table belongs, the columns included in the table, Oracle storage types for each column and keys (primary, alternate, and foreign).

- **S/H/ Column Descriptions**

  This chapter provides detailed descriptions of the columns of the SHI database schema including the tables in which the columns may be found, a full description of the column, Oracle storage type and external format, NA value, unit and acceptable range of values.

- **Radionuclide Database Overview**

  This chapter provides an overview of the radionuclide database tables through an organizational description of the tables.

- **Radionuclide Entity Relationships**

  This chapter describes the relationships between the radionuclide database tables.

- **Radionuclide Table Descriptions**

  This chapter describes each table in the radionuclide database schema (in alphabetical order). It includes information about the columns included in the table, Oracle storage types for each column, and keys (primary, alternate, and foreign).

- **Radionuclide Column Descriptions**

  This chapter provides detailed descriptions of the columns of the radionuclide database schema including the tables in which the columns may be found, a full description of the column, Oracle storage type and external format, NA value, units and acceptable range of values.

- **References**

  This section lists the sources cited in this document.

- **Glossary**

  This section defines the terms, abbreviations, and acronyms used in this document.

1.6. Conventions

This document uses a variety of conventions, which are described in the following tables. Table 1 shows the conventions for entity-relationship diagrams. Table 2 lists typographical conventions. Table 3 explains certain technical terms that are not part of the standard Glossary, which is located at the end of this document.

Description	**Symbol**
One A maps to one B	A ◀——▶ B
One A maps to zero or one B	A ◀——○▶ B
One A maps to many Bs	A ◀——▶▶ B
One A maps to zero or many Bs	A ◀——○▶▶ B
Database table	**tablename** primary key foreign key attribute 1 attribute 2 ... attribute n

Table 1: Entity-relationships symbols

Element[1]	**Font**	**Example**
• Database table • Database table and column when written in the dot notation	UPPERCASE	DATAREADY DATAREADY.status
• Database columns	lowercase	status
• Processes, software units and libraries • User-defined arguments and variables used in parameter (par) files and program command lines • Titles of documents	*italics*	*ParseSubs* *delete*-remarks *object*

• Computer code and output
• Filenames, directories and web sites
• Text that should be typed in *exactly* as shown
• SQL code
	`courier`	`>(list 'a 'b 'c)`
		`ars.scm`
		`edit-filter-dialog`

Table 2: Typographical conventions

[1]An exception to the rule can be when this element is used as a section heading or it is hyperlinked.

Term	Description
Data: Administrative	Database columns used for administrative purposes.
Data: Descriptive	Database columns that are qualitative.
Data: Measurement	Database columns that are quantitative.
Field	Database column.
Keys: Alternate	Set of alternate database columns that uniquely define a row in a database table (unique key).
Keys: Foreign	Primary key in a different table.
Keys: Primary	Set of database columns that uniquely define a row in a database table (unique key).

Table 3: Technical terms

1.7. Dates and Times

The *time* column used throughout the SHI schema is stored as epochal time, the number of seconds since January 1, 1970. Epochal time conventionally has a precision of one second, but, in the context of the IDC Database Schema, this is extended to a precision of one millisecond. Often *time* is matched by the more readable field, jdate. This "Julian date" represents a day in the form yyyyddd; for example, 1981231 where 1981 is the year (yyyy) and 231 is the day of year (ddd); this is not to be confused with the more conventional use of Julian dates in Astronomy [WikiJulian], for example. Dates in this yyyyddd format should be referred to as the "Ordinal Date" [WikiOrdinal], as defined in the ISO-8601 standard, however the terms "jdate" or "Julian date" are widely (mis-)used.

1.8. Oracle Data Types

The IDC database uses five of the available Oracle data types:

- **char**
  This fixed data format is only used for a very limited number of character-based columns in the SHI schema.
- **varchar2(n)**

  Almost all character data in the database are defined to be varchar2(n) where n is the maximum number of characters in the string. varchar2 does not store trailing blanks.
- **number(n)**

  All integer fields in the database are defined to be number(n) where n is the maximum number of digits allowed in the field. Number may also be used without specifying the maximum number of digits, alternatively, the number of digits following the decimal point may be specified by adding a comma (",") and number of digits to the declaration. For example NUMBER(8,0) would specify an eight-digit integer while NUMBER(10,3) would specify a number with up to 6 digits before and 3 digits after the decimal point, giving a total field width of 10 "characters".
- **float(n)**

Oracle supports the float(n) data type where n is the maximum number of binary digits. Float allows the *approximation* of single and double precision floats commonly used in scientific programming. The decimal point may be specified anywhere from the first to the last digit (or not at all). Most real numbers in the database are single precision float(24), except for fields such as time, endtime, and other time fields that are double precision float(53).

- **date**

  The only columns in the database that are declared to be the Oracle date data type are the lddate, moddate, last_mig_date, offdate, ondate, and initialdate columns, which store the day and time a record was inserted into the database or last modified.

2. SHI ENTITY RELATIONSHIPS

2.1. Overview

This chapter contains entity-relationship diagrams (ERDs) that show the relationships between database tables for the IDC SHI database schema. The diagrams include the table names, and, in most cases, the keys as well as the names of all of the columns. The table name is always shown at the top of the table. Keys (if present) are shown below the table name. The primary key of a table is indicated with a black key symbol. An optional foreign key is indicated with a white key symbol. Keys consisting of multiple columns are shown with a key symbol next to the first column of the key, and the remaining columns are listed beneath with no symbol. All column names (if present) are shown below the key section in the diagrams. Some of the key columns in the schema have been denormalized for convenience and usability. For readability, relationships for denormalized keys are not shown. Furthermore, the primary key, commid, of the table remark is not explicitly drawn in the many tables in which it appears as a foreign key.

2.2. Column Relationships

Relationships between tables are usually indicated by naming the column or columns through which two tables are related. Table 4 explains the syntax used. In many cases the column names that must be compared in the two tables are not identical, or a column value in one table must be compared to more than one column value in another table. The delimiters in the syntax are the dash (-) and the slash (/). A dash (-) separates groups of column names from the two tables, and slashes (/) separate the columns that comprise the composite key. Other symbols, such as equal (=), vertical bar (|), ampersand (&), and brackets, specify how the columns are compared. Expressions within brackets in relationships between tables are evaluated first. The order of operations is: =, |, and &.

Syntax	**Definition**
col	This is the simplest case where the column names (col) of the keys in the tables at each end of the relationship are the same. Both keys consist of a single column.
col1/col2	A slash (/) is used when a key is comprised of multiple columns. Here, the keys in both tables are the same and consist of two columns, col1 and col2.
col1-col2	A dash (-) is used when the column names of the keys in the two tables are not the same. Col1 is the name of the key column in one table. Col2 is the name of the key column in the other table. Each key consists of a single column. Only one dash may be used, and the dash separates the keys of the two tables. A dash can be combined with slash (/) to show that the keys consist of multiple columns and that one or more of the columns have different names in the two tables as in col1/col2-col3/col4 (both parts of the key are different in the two tables), or col1/col2-col1/col3 (only the second part of the key is different in the two tables).

Syntax	Definition
col1-col2/col3=value	An equals sign (=) is used when a component of a key must be set to a particular value. Here col1 is the name of the key column in one table. Col2 and col3 are the names of the key columns in the other table, and col3 must be set to the shown value. See the arid-tagid/tagname=arid relationship between ARRIVAL and WFTAG and orid-tagid/tagname=orid relationship between ORIGIN and WFTAG.
col1-col2 | col3	A vertical line (|) is used to show that the key in a table could be one of a set of columns. This is different from a key that consists of multiple columns. Here col1 corresponds to either col2 or col3. See the magid-mbid|msid|mlid relationship between NETMAG and ORIGIN.
col1-col2 & col3	An ampersand (&) is used to show that a key in one table must have a value between the values of two keys in another table. Here the value of col1 must be between the values of col2 and col3. See the sta/chan/time-sta/chan/time&endtime relationship between WFDISC and SENSOR.
(col1)-(col2)	Parentheses () are used to show that the keys within them have different formats and a conversion must be made to make the comparison. Here col1 corresponds to col2, but col1 and col2 have different storage formats (usually an epoch time versus a date). See the sta/chan/(time)-sta/chan/(ondate&offdate) relationship between SITECHAN and SITEAUX.

Table 4: Syntax Used to Indicate Database Table Relationships

The relationship shown in Figure 1, with table_1 columns on the left and table_2 columns on the right, demonstrates the possible relationships between the columns of two different tables. The syntax of Table 4 is used to interpret the relationships between the columns of table_1 and table_2 in Figure 1. Col8 in table_2 has no matching column in table_1 and must be equal to value in this relationship. All other columns have one or more corresponding columns in the other table. Following the syntax, col1 in table_1 must have the same value as col1 in table_2, col2 in table_1 must have a value between col4 and col5 in table_2, and col3 in table_1 must match either col6 or col7 in table_2 for the one-to-many relationship indicated by the entity-relationship symbol (Table 1) to be true.

Figure 1: Sample entity relationship

Some of the entity-relationship diagrams show more than one relationship between two tables. For example, there are two relationships between the ORIGIN and EVENT tables in Figure 2 a many-to-zero or many-to-one relationship through evid and a zero-to-one or one-to-one relationship through prefor-orid. The evid relationship states that for every ORIGIN entry, there is zero or one corresponding entry in EVENT where the evid in ORIGIN equals the evid in EVENT, and for every EVENT entry, there are many ORIGIN entries where the evid in EVENT equals the evid in ORIGIN. The prefor-orid relationship states that for every ORIGIN entry, there is zero or one corresponding entry in EVENT where the orid in ORIGIN equals the prefor in EVENT, and for every EVENT entry, there is one ORIGIN entry where the prefor in EVENT equals the orid in ORIGIN.

2.3. Table Categories

The database tables of the schema are grouped into natural categories. The first category contains the **fundamental** tables used with SHI data. These tables are used by many applications and are frequently updated. The fundamental tables contain a smaller set called the **core** tables. The core tables, which have remained essentially unchanged for many years, have been widely adopted by other seismological organizations, and therefore their definitions are virtually immutable. The relationships between the fundamental tables are shown in Figures 2 through 7.

Figures 8, 9, and 10 show the relationships between tables in the second category, **referential** tables for SHI data. These tables are read by many applications, but seldom if ever are the contents altered – they are considered to be "static". Most of the data in these tables pertain to International Monitoring System (IMS) stations and seismic networks.

Relationships between tables used by only a few application programs are shown in 11 additional figures. These are further grouped according to the software configuration items of the software architecture. Figures 11 and 12 have tables associated with automatic processing; Figures 13 and 14 have tables associated with interactive processing; and Figure 15 has tables associated with management of distributed processes. Figures 18 through 20 are related to the data services software; Figures 21 and 22 are used by system monitoring software; Figure 23 shows tables that facilitate use of the database.

2.4. Fundamental Tables

The fundamental tables have been part of seismic processing at the IDC from its inception. They hold data characterizing time-series signals as well as the collections of signals that are associated with a particular origin or event.

Figure 2 summarizes the fundamental tables. In this figure, only the table names and keys are shown. Those tables that are part of the core set are labeled 3.0 core and 3.1 core, indicating previous versions of the CSS schema. Figure 3 shows the tables that have data related to signal arrivals and the association of arrivals to origins and events. Additional data about signal arrivals are recorded in the tables shown in Figure 4, and Figure 5 shows tables holding data about source size.

Tables holding data used for event characterization are shown in Figure 6. Finally, Figure 7 shows the relationships of tables that have information about the time-series data, which are themselves saved in conventional files.

2.5. Summary of Tables and Keys

Fundamental tables related to stored time series, detected signals, and relationships between signals and events are shown in Figure 2. This summary provides the table names, keys, and relationships, but each table is presented in its entirety in a subsequent figure.

Data from the IMS stations (WFDISC) are processed for detections (DETECTION) from which arrivals and signal characteristics are extracted (AMPLITUDE, ARRIVAL, STASSOC). The signals are used to infer event locations (ASSOC, EVENT, NETMAG, ORIGERR, ORIGIN, PARRIVAL, STAMAG).

Figure 2: Overview of the fundamental SHI tables

2.5.1. EVENT

Figure 2 shows tables involved in forming origin hypotheses and events. Each table is part of the core set. Tables with information about event arrivals, location, origin time, and error are included. During automated processing, groups of arrivals from several stations are associated with presumed events. The initial origin estimate for an individual station is contained in the STASSOC table, which is related to the ARRIVAL table through *stassid*. Specific arrivals listed in the ARRIVAL table are associated with origins in the ORIGIN table through the ASSOC table. An event may have several different origins, each of which is a different estimate. The preferred origin (prefor) is indicated in the EVENT table.

2.5.2. MEASUREMENTS

The tables shown in Figure 3, 4, and 5 contain additional data about seismic and hydroacoustic signals and the magnitudes, locations, and characteristics of events. Most tables in this category lie outside the core set and are used by a smaller number of applications.Figure 4 shows tables that have detailed data about arrivals. Figure 5 shows tables related to the location, origin time, and size of an event.

The event characterization tables in Figure 6 include SPVAR, COMPLEXITY, SPLP, THIRDMOM, TIMEFREQ, and CEPPKS. The SPVAR table contains arrival-based information and is related to the ARRIVAL table through arid. The other tables contain origin-based measurements and are related to ORIGIN through orid.

Figure 3: Event table relationships

Figure 4: Detail tables related to arrival

Figure 5: Measurement tables relationships

Figure 6: Event characterization table relationships

2.5.3. WAVEFORMS

The waveform tables include WFDISC and WFTAG (see Figure 7). The WFDISC table is related to the MSGDISC and ORIGIN tables through the WFTAG table. However, sta, chan, and time are more frequently used to link the ARRIVAL and WFDISC tables directly.

Figure 7: Waveform table relationships

2.5.4. REFERENCE TABLES

The reference tables are relatively static and primarily contain look-up information. Figure 8 is an overview of the tables in this category. As with Figure 2, no column names are provided, and tables in the core set are noted. Tables shown by name only are core tables that were previously shown in Figure 2.

2.5.5. NETWORK

Figure 8 shows tables related to networks, which are collections of stations across wide geographic areas. Network tables include information on the names of the networks, the stations included in them, the participation of the stations in the network, and geographic and seismic region information.

Figure 8: Referential core table relationships

Figure 9: Network table relationships

2.5.6. CHANNEL

Figure 10 shows tables that contain specific information about the data channels of the IMS stations. Instrument response information is identified in the INSTRUMENT table. The SENSOR table is linked to it through inid and from there to WFDISC and AMPLITUDE through sta/chan/time. General data characteristics for any data channel are in SITEAUX.

Figure 10: Channel table relationships

2.5.7. SHI APPLICATION SOFTWARE TABLES

The tables shown in this section are used by fewer applications than those previously described. The tables are organized by computer software configuration items (CSCIs).

2.5.8. AUTOMATIC PROCESSING

The EVENT_CONTROL table is used by the event location and magnitude programs to preserve the values of key parameters that analysts set while reviewing the bulletin (see Figure 11), and it is also used in post-analysis processing. The SEISGRID and SEISINDEX hold historical seismicity data. The tables are also used by event quality control software ("AEQ" - Anomalous Event Qualifier).

Figure 11: Relationships of tables used in Automatic Processing

Event Screening Subsystem uses the tables shown in Figure 12.

Figure 12: Event Screening table relationships

2.5.9. INTERACTIVE PROCESSING

The tables in this group support the work of SHI data analysts, but they are not linked to any of the core tables. Figure 13 shows tables involved in scheduling the work of analysts and recording progress. Figure 14 shows tables for the *Map* application. The tables have information about the base maps, as well as overlays and colours. Interactive analysis frequently includes calculation of frequency spectra and frequency-wave number spectra.

Figure 13: Tables Involved in Analyst Review of Time-series Data

Figure 14: Map table relationships

2.5.10. DISTRIBUTED PROCESSING

The Distributed Processing ("DACS") CSCI has software that manages jobs and orchestrates the workflow. The INTERVAL and TIMESTAMP tables (shown in Figure 15) are used by this software as well as by some of the data services applications.

Figure 15: Tables used by Distributed Processing applications

2.5.11. DATA SERVICES

The Data Services CSCI has software to receive and forward time-series data received in Continuous Data ("CD") Protocol [IDC-3.4.2_Rev0.1 and IDC-3.4.3_Rev0.3], software of the Message and Subscription Subsystems, and software used to archive time-series and file product data.

Figure 16: Continuous Data Subsystem Table Relationships

Figure 17 shows relationships between tables of the Message Subsystem. These tables are used by applications that receive and reply to *AutoDRM* requests and that make requests for seismic data from stations in the auxiliary network.

Figure 17: Message Subsystem table relationship

Figure 17 shows tables used by the Subscription Subsystem, which notes when products are ready, maintains subscriptions, and tracks subscription processing.

Figure 18: Subscription Subsystem table relationships

The DATAUSER table supports both the Message and Subscription Subsystems.

Figure 19: Message and Subscription Subsystem support tables

The tables of the data archiving subsystem contain information used by the software subsystems that migrate database tables between databases and that migrate time-series data to the mass-storage device (see Figure 20). The WEIGHTS table is used by the *mig_bull* script to prevent LEB events which do not meet the Event Definition Criteria from being migrated to the REB account.

Figure 20: Data Archiving Subsystem tables

2.5.12. SYSTEM AND PERFORMANCE MONITORING

The tables of the System Monitoring CSCI track the state of the hardware and software as well as the quality of the scientific results. *Xlogger* is used to record problems discovered in the system. The SITEPOLL table is a list of auxiliary seismic stations and channels that are regularly "polled" to determine their availability. System and performance monitoring applications tables are displayed in Figure 21.

Figure 21: Tables used by System Monitoring applications

Figure 22 displays tables that hold data pertinent to monitoring scientific performance. The BULL_COMP table (used by the *BullComp* application) compares event origins first estimated by automatic analysis against analyst-reviewed origins. In the figure, the ORIGIN table on the left exists in the database account for automatic processing, and the ORIGIN table on the right exists in the account for interactive processing. The tables at the bottom of the figure are used by other evaluation applications.

Figure 22: Tables used for Performance Monitoring

2.5.13. DATABASE SUPPORT

Several tables facilitate use of the database (see Figure 23). The REMARK table holds text comments for all tables in the schema, via the commid column. The LASTID table is used by all applications that require unique values for surrogate keys. The table NA_VALUE specifies "not-available" values for many columns of the schema and is used to generate header files to be included when the application software is compiled.

Figure 23: Tables used to support the schema

3. SHI OBJECTS DESCRIPTION

3.1. SHI Table Descriptions

3.1.1. AFFILIATION

Owners:	STATIC
Category:	Core, Reference
Description:	The affiliation table groups stations into networks.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	net	*varchar2(8)*	Network identification string	N
PI	sta	*varchar2(6)*	Station code	N
	lddate	*date*	Load date	Y

Primary keys:	AFFILIATION_PK(net, sta)
Indexes:	AFFNETXX(net), AFFSTAX(sta, net), AFFNETX(net, sta)

3.1.2. ALLOCATE_HOUR

Owners:	LEB
Category:	Interactive Processing
Description:	The allocate_hour table is used by the analyst_log application to manage analyst schedules and to initiate the process of REB bulletin production.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	N
PI	hour	*number(2,0)*	Starting hour of analysis	N
PI	action	*varchar2(16)*	Analyst task	N
	auth	*varchar2(16)*	Name of the Analyst processing the time block	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	ALLOCATE_HOUR_PK(jdate, hour, action)
Indexes:	ALLOCATE_HOURX(jdate, hour, action)
Triggers:	ALLOCATE_BEF_ROW_INS, ALLOCATE_BEF_ROW_DEL

3.1.3. ALLOW_RESID

Owners:	LEB
Category:	Automatic Processing
Description:	The allow_resid table contains the allowable maximums for the absolute values of residuals for time, azimuth, and slowness. The allowed residuals are a function of phase type and station type (single station or array), and for each of these, the allowed residuals may vary for different distance ranges. A negative value for the residual indicates an arrival field that is not permitted to be defining for that phase, statype, and distance range.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	phase	*varchar2(8)*	Phase type	N
PI	mindelta	*float(24)*	Minimum station to event distance	N
	maxdelta	*float(24)*	Maximum station to event distance	Y
PI	statype	*varchar2(4)*	Station type: single station, array	N
	timeres	*float(24)*	Time residual	Y
	azres	*float(24)*	Azimuth residual	Y
	slores	*float(24)*	Slowness residual (s/deg)	Y
	lddate	*date*	Load date	Y

Primary keys:	ALLOW_RESID_PK(phase, mindelta, statype)
Indexes:	ALLOW_RESID_PK(phase, mindelta, statype), ALLOWPHASEX(phase, statype)

3.1.4. AMP3C

Owners:	IDCX
Category:	Fundamental
Description:	The amp3c table contains amplitude measurements made on three-component data for a specific detection.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	Y
	cfreq	*float(24)*	Central frequency (Hz)	Y
	vamp	*float(24)*	Vertical amplitude	Y
	vsnr	*float(24)*	Vertical signal-to-noise ratio	Y
	hamp	*float(24)*	Horizontal amplitude	Y
	hsnr	*float(24)*	Horizontal signal-to-noise ratio	Y
	htov	*float(24)*	Horizontal to vertical amplitude ratio	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	rid	*varchar2(8)*	Recipe identifier	Y
I	lddate	*date*	Load date	Y

Indexes:	AMP3CARIDX(arid), AMP3C_LDDATEX(lddate)

3.1.5. AMP3C

Owners:	LEB,REB
Category:	Fundamental
Description:	The amp3c table contains amplitude measurements made on three-component data for a specific detection.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	Y
	cfreq	*float(24)*	Central frequency (Hz)	Y
	vamp	*float(24)*	Vertical amplitude	Y
	vsnr	*float(24)*	Vertical signal-to-noise ratio	Y
	hamp	*float(24)*	Horizontal amplitude	Y
	hsnr	*float(24)*	Horizontal signal-to-noise ratio	Y
	htov	*float(24)*	Horizontal to vertical amplitude ratio	Y
	rid	*varchar2(8)*	Recipe identifier	Y
	lddate	*date*	Load date	Y

Indexes:	AMP3CARIDX(arid)

3.1.6. AMPDESCRIPT

Owners:	IDCX
Category:	Fundamental
Description:	The ampdescript table contains a description of how each type of amplitude measurement in amplitude table was made.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	amptype	*varchar2(8)*	Amplitude measure descriptor	N
	toff	*float(24)*	Offset from theoretical or observed arrival time	Y
	tlen	*float(24)*	Duration of measurement window	Y
	gvlo	*float(24)*	Low group velocity for measurement window	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			(km/sec)	
	gvhi	*float(24)*	High group velocity for measurement window (km/sec)	Y
	mtype	*varchar2(8)*	Measurement type	Y
	descr	*varchar2(255)*	Description	Y
	lddate	*date*	Load date	Y

Primary keys:	AMPDESCRIPT_PK(amptype)
Indexes:	AMPDESCRIPT_PK(amptype)

3.1.7. AMPLITUDE

Owners:	IDCX
Category:	Fundamental
Description:	The amplitude table contains arrival-based and origin-based amplitude measurements. The amplitude measurement is described in ampdescript.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	ampid	*number(10,0)*	Amplitude identifier	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	parid	*number(10,0)*	Predicted arrival identifier	Y
	chan	*varchar2(8)*	Channel name	Y
	amp	*float(24)*	Amplitude	Y
	per	*float(24)*	Period (s)	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	amptime	*float(53)*	Time of amplitude measure	Y
	start_time	*float(53)*	Start time of measurement window	Y
	duration	*float(24)*	Duration of measurement window	Y
	bandw	*float(24)*	Difference between the high and low frequency bands used (Hz).	Y
	amptype	*varchar2(8)*	Amplitude measure descriptor	Y
	units	*varchar2(15)*	Units	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
	inarrival	*varchar2(1)*	"y" or "n" flag indicating if amp is the same as the amp in the arrival table	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	auth	*varchar2(15)*	Name of the application or user making the update	Y
I	lddate	*date*	Load date	Y

Primary keys:	AMPLITUDE_PK(ampid)
Indexes:	AMPPARIDX(parid), AMPLITUDEX(ampid), AMPLDDATEX(lddate), AMPARIDX(arid)

3.1.8. AMPLITUDE

Owners:	LEB,REB
Category:	Fundamental
Description:	The amplitude table contains arrival-based and origin-based amplitude measurements. The amplitude measurement is described in ampdescript.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	ampid	*number(10,0)*	Amplitude identifier	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	parid	*number(10,0)*	Predicted arrival identifier	Y
	chan	*varchar2(8)*	Channel name	Y
	amp	*float(24)*	Amplitude	Y
	per	*float(24)*	Period (s)	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	amptime	*float(53)*	Time of amplitude measure	Y
	start_time	*float(53)*	Start time of measurement window	Y
	duration	*float(24)*	Duration of measurement window	Y
	bandw	*float(24)*	Difference between the high and low frequency bands used (Hz).	Y
	amptype	*varchar2(8)*	Amplitude measure descriptor	Y
	units	*varchar2(15)*	Units	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
	inarrival	*varchar2(1)*	"y" or "n" flag indicating if amp is the same as the amp in the arrival table	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
I	lddate	*date*	Load date	Y

Primary keys:	AMPLITUDE_PK(ampid)
Indexes:	AMPLITUDE_LDDATEX(lddate), AMPPARIDX(parid), AMPLITUDEX(ampid), AMPARIDX(arid)

3.1.9. APMA

Owners:	REB
Category:	Fundamental
Description:	The apma table contains results of particle motion analysis for a specific detection.

Pk/Fk/I	Column	Storage type	Description	Null?
	phase	*varchar2(8)*	Phase type	Y
I	arid	*number(10,0)*	Arrival identifier	N
	freq	*float(24)*	Frequency	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	ampp	*float(24)*	P-phase amplitude	Y
	amps	*float(24)*	S-phase amplitude	Y
	amplr	*float(24)*	Rayleigh-phase amplitude	Y
	rect	*float(24)*	Rectilinearity	Y
	plans	*float(24)*	S-phase planarity	Y
	planlr	*float(24)*	Rayleigh-phase planarity	Y
	hvratp	*float(24)*	P-phase horizontal-to-vertical ratio	Y
	hvrat	*float(24)*	S-phase horizontal-to-vertical ratio	Y
	hmxmn	*float(24)*	Maximum-to-minimum horizontal ratio	Y
	inang3	*float(24)*	Short-axis incidence angle	Y
	seazp	*float(24)*	P-phase observed azimuth	Y
	seazs	*float(24)*	S-phase observed azimuth	Y
	seazlr	*float(24)*	Rayleigh-phase observed azimuth	Y
	inang1	*float(24)*	Long-axis incidence angle	Y
	ptime	*float(53)*	P-phase extraction time	Y
	stime	*float(53)*	S-phase extraction time	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	apmarid	*number(10,0)*	Apma recipe identifier	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	APMAARIDX(arid)

3.1.10. APMA

Owners:	IDCX,LEB
Category:	Fundamental
Description:	The apma table contains results of particle motion analysis for a specific detection.

Pk/Fk/I	Column	Storage type	Description	Null?
	phase	*varchar2(8)*	Phase type	Y
I	arid	*number(10,0)*	Arrival identifier	N
	freq	*float(24)*	Frequency	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	ampp	*float(24)*	P-phase amplitude	Y
	amps	*float(24)*	S-phase amplitude	Y
	amplr	*float(24)*	Rayleigh-phase amplitude	Y
	rect	*float(24)*	Rectilinearity	Y
	plans	*float(24)*	S-phase planarity	Y
	planlr	*float(24)*	Rayleigh-phase planarity	Y
	hvratp	*float(24)*	P-phase horizontal-to-vertical ratio	Y
	hvrat	*float(24)*	S-phase horizontal-to-vertical ratio	Y
	hmxmn	*float(24)*	Maximum-to-minimum horizontal ratio	Y
	inang3	*float(24)*	Short-axis incidence angle	Y
	seazp	*float(24)*	P-phase observed azimuth	Y
	seazs	*float(24)*	S-phase observed azimuth	Y
	seazlr	*float(24)*	Rayleigh-phase observed azimuth	Y
	inang1	*float(24)*	Long-axis incidence angle	Y
	ptime	*float(53)*	P-phase extraction time	Y
	stime	*float(53)*	S-phase extraction time	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	apmarid	*number(10,0)*	Apma recipe identifier	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Indexes:	APMA_LDDATEX(lddate), APMAARIDX(arid)

3.1.11. ARCH_DATA_TYPE

Owners:	IDCX
Category:	Core, Fundamental
Description:	The arch_data_type table contains information used by the archiving software.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	archid	*number(10,0)*	Archive row identifier	N
	datatype	*varchar2(24)*	Data type (or class of data) being archived (e.g. PRIARC, MSG, SQUAL)	Y
	table_name	*varchar2(32)*	Name of the table encapsulating the data type to be archived	Y
	primarykey	*varchar2(24)*	Not used	Y
	secondkey	*varchar2(24)*	Not used	Y
	merge_adjacent	*varchar2(2)*	Y indicates Archive should merge adjacent rows	Y
	note_missing_data	*varchar2(2)*	Indicates that this data type is for late arriving data	Y
	ondate	*number(8,0)*	First julian date this row is valid	Y
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	lddate	*date*	Load date	Y

Primary keys:	ARCH_DATA_TYPE_PK(archid)
Indexes:	ARCH_DATA_TYPE_PK(archid)

3.1.12. ARRIVAL

Owners:	LEB,REB
Category:	Core, Fundamental
Description:	The arrival table contains summary information about arrivals.

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
I	time	*float(53)*	Epoch time of the arrival	N
PI	arid	*number(10,0)*	Arrival identifier	N
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	stassid	*number(10,0)*	Station association (stassoc) identifier.	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	chanid	*number(8,0)*	Channel recording identifier	Y
	chan	*varchar2(8)*	Channel name	Y
	iphase	*varchar2(8)*	Reported phase	Y
	stype	*varchar2(1)*	Signal type	Y
	deltim	*float(24)*	Time uncertainty	Y
	azimuth	*float(24)*	Observed azimuth	Y
	delaz	*float(24)*	Azimuth uncertainty	Y
	slow	*float(24)*	Observed slowness for a detected arrival (s/deg)	Y
	delslo	*float(24)*	Slowness uncertainty (s/deg)	Y
	ema	*float(24)*	Emergence angle	Y
	rect	*float(24)*	Rectilinearity	Y
	amp	*float(24)*	Amplitude	Y
	per	*float(24)*	Period	Y
	logat	*float(24)*	Log(amp/per)	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
	fm	*varchar2(2)*	First motion	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	qual	*varchar2(1)*	Signal onset quality	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	ARRIVAL_PK(arid)
Indexes:	ARTIMEX(time), ARSTASSX(stassid), ARRIVAL_LDDATEX(lddate), ARRIVALX(arid)

3.1.13. ARRIVAL

Owners:	IDCX
Category:	Core, Fundamental
Description:	The arrival table contains summary information about arrivals.

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N

Pk/Fk/I	Column	Storage type	Description	Null?
I	time	*float(53)*	Epoch time of the arrival	N
PI	arid	*number(10,0)*	Arrival identifier	N
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	stassid	*number(10,0)*	Station association (stassoc) identifier.	Y
	chanid	*number(8,0)*	Channel recording identifier	Y
	chan	*varchar2(8)*	Channel name	Y
	iphase	*varchar2(8)*	Reported phase	Y
	stype	*varchar2(1)*	Signal type	Y
	deltim	*float(24)*	Time uncertainty	Y
	azimuth	*float(24)*	Observed azimuth	Y
	delaz	*float(24)*	Azimuth uncertainty	Y
	slow	*float(24)*	Observed slowness for a detected arrival (s/deg)	Y
	delslo	*float(24)*	Slowness uncertainty (s/deg)	Y
	ema	*float(24)*	Emergence angle	Y
	rect	*float(24)*	Rectilinearity	Y
	amp	*float(24)*	Amplitude	Y
	per	*float(24)*	Period	Y
	logat	*float(24)*	Log(amp/per)	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
	fm	*varchar2(2)*	First motion	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	qual	*varchar2(1)*	Signal onset quality	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	ARRIVAL_PK(arid)
Indexes:	ARSTTIMEX(sta, time), ARTIMEX(time), ARSTASSX(stassid), ARRIVAL_LDDATEX(lddate), ARRIVALX(arid)

3.1.14. ASSOC

Owners:	SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The assoc table contains information that connects arrivals (entries in the arrival table) to a particular origin.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
PI	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	phase	*varchar2(8)*	Phase type	Y
	belief	*float(24)*	Phase confidence	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	seaz	*float(24)*	Station-to-event azimuth	Y
	esaz	*float(24)*	Event-to-station azimuth	Y
	timeres	*float(24)*	Time residual	Y
	timedef	*varchar2(1)*	Time = defining (d), non defining (n)	Y
	azres	*float(24)*	Azimuth residual	Y
	azdef	*varchar2(1)*	Azimuth = defining (d), non defining (n)	Y
	slores	*float(24)*	Slowness residual (s/km)	Y
	slodef	*varchar2(1)*	Flag indicating whether slowness is defining (d) or non defining (n).	Y
	emares	*float(24)*	Incidence angle residual	Y
	wgt	*float(24)*	Location weight	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	ASSOC_PK(arid, orid)
Indexes:	ASSARIDX(arid), ASSOCX(orid, arid), ASSOC_LDDATEX(lddate)

3.1.15. ASSOC

Owners:	REB
Category:	Core, Fundamental
Description:	The assoc table contains information that connects arrivals (entries in the arrival table) to a particular origin.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
PI	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	phase	*varchar2(8)*	Phase type	Y
	belief	*float(24)*	Phase confidence	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	seaz	*float(24)*	Station-to-event azimuth	Y
	esaz	*float(24)*	Event-to-station azimuth	Y
	timeres	*float(24)*	Time residual	Y
	timedef	*varchar2(1)*	Time = defining (d), non defining (n)	Y
	azres	*float(24)*	Azimuth residual	Y
	azdef	*varchar2(1)*	Azimuth = defining (d), non defining (n)	Y
	slores	*float(24)*	Slowness residual (s/km)	Y
	slodef	*varchar2(1)*	Flag indicating whether slowness is defining (d) or non defining (n).	Y
	emares	*float(24)*	Incidence angle residual	Y
	wgt	*float(24)*	Location weight	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	ASSOC_PK(arid, orid)
Indexes:	ASSARIDX(arid), ASSOCX(orid, arid)

3.1.16. ASSOC

Owners:	IDCX,LEB
Category:	Core, Fundamental
Description:	The assoc table contains information that connects arrivals (entries in the arrival table) to a particular origin.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
PI	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	phase	*varchar2(8)*	Phase type	Y
	belief	*float(24)*	Phase confidence	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	seaz	*float(24)*	Station-to-event azimuth	Y
	esaz	*float(24)*	Event-to-station azimuth	Y
	timeres	*float(24)*	Time residual	Y
	timedef	*varchar2(1)*	Time = defining (d), non defining (n)	Y
	azres	*float(24)*	Azimuth residual	Y
	azdef	*varchar2(1)*	Azimuth = defining (d), non defining (n)	Y
	slores	*float(24)*	Slowness residual (s/km)	Y
	slodef	*varchar2(1)*	Flag indicating whether slowness is defining (d) or non defining (n).	Y
	emares	*float(24)*	Incidence angle residual	Y
	wgt	*float(24)*	Location weight	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	ASSOC_PK(arid, orid)
Indexes:	ASSARIDX(arid), ASSOCX(orid, arid)

3.1.17. ASSOC_TEMP_GA

Owners:	SEL3
Category:	Core, Fundamental
Description:	The assoc_temp_ga table is used by the Global Association (GA) application to store temporary associations.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	N
I	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	phase	*varchar2(8)*	Phase type	Y
	belief	*float(24)*	Phase confidence	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	seaz	*float(24)*	Station-to-event azimuth	Y
	esaz	*float(24)*	Event-to-station azimuth	Y
	timeres	*float(24)*	Time residual	Y
	timedef	*varchar2(1)*	Time = defining (d), non defining (n)	Y
	azres	*float(24)*	Azimuth residual	Y
	azdef	*varchar2(1)*	Azimuth = defining (d), non defining (n)	Y
	slores	*float(24)*	Slowness residual (s/km)	Y
	slodef	*varchar2(1)*	Flag indicating whether slowness is defining (d) or non defining (n).	Y
	emares	*float(24)*	Incidence angle residual	Y
	wgt	*float(24)*	Location weight	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	ATGORIDX(orid), ASSOC_TEMP_GAX(arid, orid)

3.1.18. ASSOC_TEMP_GA

Owners:	SEL1,SEL2
Category:	Core, Fundamental
Description:	The assoc_temp_ga table is used by the Global Association (GA) application to store temporary associations.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	N
I	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	phase	*varchar2(8)*	Phase type	Y
	belief	*float(24)*	Phase confidence	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	seaz	*float(24)*	Station-to-event azimuth	Y
	esaz	*float(24)*	Event-to-station azimuth	Y
	timeres	*float(24)*	Time residual	Y
	timedef	*varchar2(1)*	Time = defining (d), non defining (n)	Y
	azres	*float(24)*	Azimuth residual	Y
	azdef	*varchar2(1)*	Azimuth = defining (d), non defining (n)	Y
	slores	*float(24)*	Slowness residual (s/km)	Y
	slodef	*varchar2(1)*	Flag indicating whether slowness is defining (d) or non defining (n).	Y
	emares	*float(24)*	Incidence angle residual	Y
	wgt	*float(24)*	Location weight	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	ATGORIDX(orid), ASSOC_TEMP_GAX(arid, orid)

3.1.19. ATTENCOEF

Owners:	STATIC
Category:	Fundamental
Description:	The attencoef table contains station-specific attenuation corrections for regional Event Characterization analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	attenid	*varchar2(20)*	Attenuation coefficient set identifier	N
PI	sta	*varchar2(6)*	Station code	N
PI	ratiotype	*varchar2(6)*	Amplitude ratio identifier	N
PI	chan	*varchar2(8)*	Channel name	N

Pk/Fk/I	Column	Storage type	Description	Null?
	xcoef	*float(24)*	Constant coefficient	Y
	ycoef	*float(24)*	Geometrical spreading coefficient	Y
	zcoef	*float(24)*	Attenuation coefficient	Y
	dmin	*float(24)*	Minimum distance of applicability	Y
	dmax	*float(24)*	Maximum distance of applicability	Y
	lddate	*date*	Load date	Y

Primary keys:	SYS_C003779(attenid, sta, ratiotype, chan)
Indexes:	SYS_C003779(attenid, sta, ratiotype, chan)

3.1.20. BEAMAUX (VIEW)

Owners:	STATIC
Category:	Interactive Analysis
Description:	The beamaux view joins the sensor, instrument and forbeamaux tables. It is used by the SHI processing application, GSEBull.

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
	chan	*varchar2(8)*	Channel name	N
	ncalib	*float(24)*	Nominal calibration (nanometers/digital count)	Y
	ncalper	*float(24)*	Nominal calibration period (seconds)	Y
	time	*float(53)*	Epoch time of start of beam	N
	endtime	*float(53)*	Epoch time of end of beam	N

SQL Body:

```
  CREATE OR REPLACE FORCE VIEW BEAMAUX (STA, CHAN, NCALIB, NCALPER,
TIME, ENDTIME) AS
  SELECT f.sta,
       f.chan,
       i.ncalib,
       i.ncalper,
       s.time,
       s.endtime
FROM instrument i, sensor s, forbeamaux f
WHERE i.inid=s.inid and s.sta=f.sta and s.chan=f.chan;
```

3.1.21. BREGION_DEF

Owners:	STATIC
Category:	Interactive Analysis
Description:	Definitions of regions used by the SHI Interactive processing application, Scanner.

Pk/Fk/I	Column	Storage type	Description	Null?
	bregname	*varchar2(32)*	Region name	N
	bregid	*number(8,0)*	Unique region identifier	N
	lat_lo	*number(8,3)*	Minimum latitude	Y
	lat_hi	*number(8,3)*	Maximum latitude	Y
	lon_lo	*number(8,3)*	Minimum longitude	Y
	lon_hi	*number(8,3)*	Maximum longitude	Y
	lddate	*date*	Load date	Y

3.1.22. BREGION_TAB

Owners:	STATIC
Category:	Interactive Analysis
Description:	Signal characteristics (azimuth, slowness, snr, amp, per) for regions used by the SHI Interactive processing applications, Scanner.

Pk/Fk/I	Column	Storage type	Description	Null?
	bregname	*varchar2(32)*	Region name	N
	bregid	*number(8,0)*	Unique region identifier	N
	sta	*varchar2(6)*	Station code	N
	azi_lo	*number(8,3)*	Minimum azimuth (degrees clockwise from North)	Y
	azi_hi	*number(8,3)*	Maximum azimuth (degrees clockwise from North)	Y
	slo_lo	*number(8,3)*	Minimum slowness	Y
	slo_hi	*number(8,3)*	Maximum slowness	Y
	snr_lo	*number(8,3)*	Minimum signal to noise ratio	Y
	snr_hi	*number(8,3)*	Maximum signal to noise ratio	Y
	per_lo	*number(8,3)*	Minimum period	Y
	per_hi	*number(8,3)*	Maximum period	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	amp_lo	*number(8,3)*	Minimum amplitude	Y
	amp_hi	*number(8,3)*	Maximum amplitude	Y
	lddate	*date*	Load date	Y

3.1.23. BULL_COMP

Owners:	IDCX
Category:	Interactive Analysis
Description:	The bull_comp table contains results from the BullComp application of the comparison of two seismic bulletins. The information summarizes the differences between two seismic bulletins. The information summarizes the differences between event solutions that share common associated arrival, or (if no arrival information is available) whose locations and time uncertainties overlap.

Pk/Fk/I	Column	Storage type	Description	Null?
	orid1	*number(10,0)*	Origin identifier from bulletin 1	Y
	orid2	*number(10,0)*	Origin identifier from bulletin 2	Y
	ddist	*float(24)*	Difference in distance (kilometers)	Y
	ddepth	*float(24)*	Difference in depth	Y
	dtime	*float(24)*	Difference in epoch time	Y
	ndef1	*number(10,0)*	Number of time-defining phases for orid1	Y
	ndef2	*number(10,0)*	Number of time-defining phases for orid2	Y
	dndef	*number(10,0)*	Difference in number of time-defining phases	Y
	narr1	*number(10,0)*	Number of associated arrivals for orid1	Y
	narr2	*number(10,0)*	Number of associated arrivals for orid2	Y
	dnarr	*number(10,0)*	Difference in the number of associated arrivals	Y
	nmatch	*number(8,0)*	Number of matching arrivals (defining/non-defining)	Y
	ndef1arr2	*number(10,0)*	Number of defining arrivals for orid1 that are arrivals (either defining or non-defining) for orid2	Y
	ndef2arr1	*number(10,0)*	Number of defining arrivals for orid2 that are arrivals (either defining or non-defining) for orid1	Y
	asstr	*varchar2(1)*	Association strength (s or w)	Y
	lddate	*date*	Date of the bulletin comparison	Y

3.1.24. CEPPKS

Owners:	REB
Category:	Fundamental
Description:	The ceppks table contains results of cepstral analysis and includes the amplitude and frequency of cepstral peaks that are consistent among multiple phases associated with the same event.

Pk/Fk/I	Column	Storage type	Description	Null?
	orid	*number(10,0)*	Origin identifier	N
	sta	*varchar2(6)*	Station code	Y
	ptyp	*varchar2(6)*	Consistent peak type code	Y
	pkamp	*float(24)*	Consistent peak amplitude	Y
	pkqf	*float(24)*	Consistent peak quefrency	Y
I	lddate	*date*	Load date	Y

Indexes:	CEPPKS_LDDATEX(lddate)

3.1.25. CHANNAME

Owners:	STATIC
Category:	Data Services
Description:	The channame table provides mapping between channel and station names.

Pk/Fk/I	Column	Storage type	Description	Null?
	station	*varchar2(6)*	Station name	N
PI	stream	*varchar2(6)*	Stream name	N
PI	extern_sta	*varchar2(6)*	External station name	N
PI	extern_chan	*varchar2(8)*	External channel name	N
	intern_sta	*varchar2(6)*	Internal station name	N
	intern_chan	*varchar2(8)*	Internal channel name	N
	capability	*number(4,0)*	Capability	Y
	position	*number(4,0)*	Position	Y
PI	revision	*number(4,0)*	Revision number	N
	lddate	*date*	Load date	Y

Primary keys:	CHANNAME_PK(stream, extern_sta, extern_chan, revision)
Indexes:	CHANNAME_NAME_STA_CHAN_REVX(stream, extern_sta, extern_chan, revision)

3.1.26. CHAN_GROUPS

Owners:	IDCX
Category:	Data Services
Description:	The chan_groups table contains information used by the archiving software.

Pk/Fk/I	Column	Storage type	Description	Null?
I	class	*varchar2(16)*	Class (or data type)	Y
I	name	*varchar2(20)*	Name of the grouping	Y
I	sta	*varchar2(6)*	Station code	Y
I	chan	*varchar2(8)*	Channel name	Y
	duration	*number(8,0)*	Not used	Y
	inwfactivity	*number(1,0)*	This column is not used	Y
	ondate	*number(8,0)*	First julian date this row is valid	Y
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	lddate	*date*	Load date	Y

Indexes:	CGCLASSNAMEX(class, name), CGSTACHANX(sta, chan)

3.1.27. CLF

Owners:	IDCX
Category:	Fundamental
Description:	Concise List of Frames, providing detailed information about every frame of continuous data received at the IDC

Pk/Fk/I	Column	Storage type	Description	Null?
PI	frid	*number(10,0)*	Frame identifier.	N
	frameid	*varchar2(38)*	Unique frame identifier (alphanumeric)	N
I	time	*float(53)*	Receipt time (epoch) of a CD protocol frame	Y
I	timestamp	*float(53)*	Nominal timestamp of the frame (epochal)	Y
	receivespan	*float(53)*	Time (in seconds) taken to complete reading of a received CD protocol data frame	Y
PI	foff	*number(10,0)*	Byte offset of data segment within file	N

Pk/Fk/I	Column	Storage type	Description	Null?
	length	*number(10,0)*	Length of CD protocol frame in bytes	Y
	duration	*number(24,0)*	Interval duration in seconds	Y
	frametype	*varchar2(2)*	Frame type (one of s,v,o,D,f,n,a,d)	Y
	verifstatus	*varchar2(4)*	Authentication status	Y
	pcode	*varchar2(8)*	Parsing code of the CD protocol data frame	Y
	mask	*varchar2(64)*	Bit mask indicating the presence or absence of a channel within a CD protocol data frame.	Y
	revision	*number(4,0)*	Revision number	Y
I	lddate	*date*	Load date	Y

Primary keys:	CLF_PK(frid, foff)
Indexes:	CLF_FRID_FOFFX(frid, foff), CLF_LDDATEX(lddate), CLF_TIMEX(time), CLF_TIMESTAMPX(timestamp)

3.1.28. COLORDISC

Owners:	MAP
Category:	Interactive Processing
Description:	The colordisc table links a unique colormapid to a colormap name and disk file.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	colormapid	*number(8,0)*	Colormap identifier	N
	dfile	*varchar2(32)*	Data file name	N
	dir	*varchar2(64)*	Absolute path to the data file	N
	colormapname	*varchar2(64)*	Colormap name	Y
	lddate	*date*	Load date	N

Primary keys:	COLORDISC_PK(colormapid)
Indexes:	COLORDISC_PK(colormapid)

3.1.29. COMPLEXITY

Owners:	REB
Category:	Fundamental
Description:	The complexity table contains the complexity event characterization parameter estimated by the Detection and Feature Extraction (DFX) application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
PI	sta	*varchar2(6)*	Station code	N
PI	phase	*varchar2(6)*	Phase type	N
	rectype	*varchar2(8)*	Recipe type	Y
	complexity	*float(24)*	Complexity measure	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
I	lddate	*date*	Load date	Y

Primary keys:	COMPLEXITY_PK(orid, sta, phase)
Indexes:	COMPLEXITY_PK(orid, sta, phase), COMPLEXITY_LDDATEX(lddate), COMPLORIDX(orid)

3.1.30. DATAREADY

Owners:	IDCX
Category:	Data Services
Description:	The dataready table indicates which data are ready to be processed by the Subscription Subsystem. Entries to the table are made by applications running in the operational systems that process the data. For applications under the control of the Distributed Application Control System (DACS), such as Station Processing by DFX (Detection and Feature Extraction) and StaPro, this is achieved via a stop-hook call from the tuxshell process controlling the transaction.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	dataid	*number(10,0)*	Data ready identifier	N
	tablename	*varchar2(24)*	Name of table containing data to be distributed by the Subscription system.	Y
	account	*varchar2(24)*	Account name	N
	tagname	*varchar2(12)*	Name of reference field (for example, orid)	Y
I	tagid	*number(10,0)*	Numeric value of the identifier specified by the tagname column	Y
	tagid2	*number(10,0)*	Secondary tag value	Y
	data_info	*varchar2(24)*	Miscellaneous data information	Y
	status	*varchar2(8)*	Status of this row.	Y
I	lddate	*date*	Load date	Y

Primary keys:	DATAREADY_PK(dataid)
Indexes:	DATAREADYX(dataid), DRTAGIDX(tagid), DATAREADY_LDDATEX(lddate)

3.1.31. DATAUSER

Owners:	IDCX
Category:	Data Services
Description:	The datauser table tracks authorized users of the Message and Subscription Subsystems. Each user is identified by a (unique) username and domain, which must match all email headers. The priority column specifies the class of user, and servicetime is the last time a request from the user was processed. Priority and servicetime are considered when selecting the order in which requests will be processed. The status can either be active or inactive.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	userid	*number(8,0)*	User identifier	N
	pocid	*number(8,0)*	Point of contact identifier	Y
	username	*varchar2(24)*	Unix login or user name component of email address	N
	domain	*varchar2(48)*	Domain name from the incoming subscription message	N
	msgtype	*varchar2(16)*	Message type	N
	status	*varchar2(24)*	Status of this user	N
	priority	*number(2,0)*	User priority	N
	commid	*number(10,0)*	Comment identifier	Y
	emaillimit	*number(8,0)*	Maximum size of message (in bytes) that will be delivered via email	Y
	servicetime	*float(53)*	Last time a request from that user was serviced	Y
	lddate	*date*	Load date	Y

Primary keys:	DATAUSER_PK(userid)
Indexes:	DATAUSERX(userid)

3.1.32. DEFINE_PHASE_RESIDUAL

Owners:	STATIC
Category:	Interactive Analysis
Description:	Definitions of allowable phase residuals for use in Interactive SHI analysis

Pk/Fk/I	Column	Storage type	Description	Null?
	phase	*varchar2(8)*	Phase type	N
	statype	*varchar2(4)*	Station type (array (ar) or three-component (3c))	N
	mindelta	*float(24)*	Minimum allowable distance (degrees)	N
	maxdelta	*float(24)*	Maximum allowable distance (degrees)	N
	mindepth	*float(24)*	Minimum allowable depth (km)	N
	maxdepth	*float(24)*	Maximum allowable depth (km)	N
	timres	*float(24)*	Time residual (seconds)	N
	slores	*float(24)*	Slowness residual (s/km)	N
	azres	*float(24)*	Allowable azimuth residual	N
	lddate	*date*	Load date	N

3.1.33. DERVDISC

Owners:	IDCX
Category:	Automatic Processing
Description:	The dervdisc table contains pointers to detection pixel information derived from PMCC infrasound processing.

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
	chan	*varchar2(8)*	Channel name	N
I	time	*float(53)*	Start time of the data interval (epochal)	N
	tlen	*float(24)*	Duration of the data interval in seconds.	Y
	net	*varchar2(8)*	Network identification string	Y
	dervid	*number(10,0)*	Derived data unique identifier	N
	recid	*number(10,0)*	Unique record identifier	Y
	method	*varchar2(17)*	Method or Application associated to the dervdisc entry.	Y
	datatype	*varchar2(2)*	Data type (bi: binary as:ASCII)	Y
	dervtype	*varchar2(4)*	Nature of the derived data (pix:PMCC detection pixels, fam: PMCC detection family)	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	dir	*varchar2(64)*	Absolute path to the data file	Y
	dfile	*varchar2(32)*	Name of the data file.	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	DERV_STAX(sta, time)

3.1.34. DETECTION

Owners:	IDCX,LEB,REB
Category:	Fundamental
Description:	The detection table contains summary information about SHI detections.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	time	*float(53)*	Epoch time	Y
	sta	*varchar2(6)*	Station code	Y
	chan	*varchar2(8)*	Channel name	Y
	bmtyp	*varchar2(4)*	Beam type	Y
	sproid	*number(10,0)*	Signal processor identifier	Y
	cfreq	*float(24)*	Central frequency (Hz)	Y
	seaz	*float(24)*	Observed azimuth	Y
	delaz	*float(24)*	Azimuth uncertainty	Y
	slow	*float(24)*	Slowness (s/km)	Y
	delslo	*float(24)*	Slowness uncertainty (s/km)	Y
	snr	*float(24)*	Signal-to-noise ratio	Y
	stav	*float(24)*	Short-term average	Y
	fstat	*float(24)*	F-statistic	Y
	deltim	*float(24)*	Time uncertainty	Y
	bandw	*float(24)*	Difference between the high and low frequency bands used (Hz).	Y
	fkqual	*number(4,0)*	F-k quality	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	DETECTION_PK(arid)
Indexes:	DETTIMEX(time), DETECTIONX(arid), DETLDDATEX(lddate)

3.1.35. DFXLOCK

Owners:	IDCX
Category:	Data Services
Description:	Lock table to prevent simultaneous processing by DFX of adjacent time intervals for a given primary seismic station

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N

3.1.36. DISCARD

Owners:	REB
Category:	Interactive Processing
Description:	The discard table contains the reason why an analyst discarded an event that was hypothesized by the automated system.

Pk/Fk/I	Column	Storage type	Description	Null?
I	evid	*number(10,0)*	Event identifier	N
	reason	*varchar2(30)*	Reason event was discarded	N
	auth	*varchar2(15)*	Name of the Analyst discarding the event	Y
	lddate	*date*	Load date	Y

Indexes:	DISCARDEVIDX(evid)

3.1.37. DISCARD

Owners:	LEB
Category:	Interactive Processing
Description:	The discard table contains the reason why an analyst discarded an event that was hypothesized by the automated system.

Pk/Fk/I	Column	Storage type	Description	Null?
I	evid	*number(10,0)*	Event identifier	N
	reason	*varchar2(30)*	Reason event was discarded	N

Pk/Fk/I	Column	Storage type	Description	Null?
	auth	*varchar2(15)*	Name of the Analyst discarding the event	Y
I	lddate	*date*	Load date	Y

Indexes:	DISCARD_LDDATEX(lddate), DISCARDEVIDX(evid)

3.1.38. DSEISGRID

Owners:	STATIC
Category:	Automatic Processing
Description:	The seisgrid table contains a natural seismicity grid, which includes the average number of events per year with magnitude greater than the threshold in this table for each latitude-longitude grid point (the grid points are defined in the seisindex table). The seisgrid table is used by the AEQ application to help identify anomalous events.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	grdname	*varchar2(6)*	Grid name	N
PI	icell	*number(8,0)*	Grid cell index	N
	magth	*float(24)*	Magnitude threshold	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	nevyr	*float(24)*	Average number of events/year	Y
	lddate	*date*	Load date	Y

Primary keys:	DSEISGRID_PK(grdname, icell)
Indexes:	DSEISGRID_PK(grdname, icell)

3.1.39. DSEISINDEX

Owners:	STATIC
Category:	Automatic Processing
Description:	The seisindex table contains the geographic grids of natural seismicity data in the seisgrid table. The dseisindex table contains the geographic grids of seismicity data in the dseisgrid table. The seisindex table is used by the AEQ application to help identify anomalous events.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	grdname	*varchar2(6)*	Grid name	N
	lat1	*float(24)*	Initial latitude	Y
	lon1	*float(24)*	Initial longitude	Y
	dlat	*float(24)*	Latitude increment	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	dlon	*float(24)*	Longitude increment	Y
	nlat	*number(8,0)*	Number of latitudes	Y
	nlon	*number(8,0)*	Number of longitudes	Y
	orderby	*varchar2(6)*	Order by either latitude or longitude	Y
	lddate	*date*	Load date	Y

Primary keys:	DSEISINDEX_PK(grdname)
Indexes:	DSEISINDEX_PK(grdname)

3.1.40. DUPWFDISC

Owners:	IDCX
Category:	Automatic Processing
Description:	Contains pointers to data that was received multiple times at the IDC. The data referenced by the pointers in this table strictly duplicates data that has previously been received and is already stored in the wfdisc table. The dupwfdisc table has a structure identical to the wfdisc table.

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
	chan	*varchar2(8)*	Channel name	N
	time	*float(53)*	Start time of the record (epochal)	N
	wfid	*number(10,0)*	Unique waveform identifier (integer)	N
	chanid	*number(8,0)*	Channel recording identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	endtime	*float(53)*	End time (epoch) of the record	Y
	nsamp	*number(8,0)*	Number of samples in the waveform segment	Y
	samprate	*float(24)*	Sample rate for this record (samples per second)	Y
	calib	*float(24)*	Nominal calibration	Y
	calper	*float(24)*	Calibration period (seconds)	Y
	instype	*varchar2(6)*	Instrument type (e.g. CMG3ES, Akashi, HMP45A)	Y
	segtype	*varchar2(1)*	Waveform segment type indicating if the waveform is original, segmented, virtual or duplicate	Y
	datatype	*varchar2(2)*	Data type (e.g. s3, s4, t4)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
	dir	*varchar2(64)*	Absolute path to the data file	Y
	dfile	*varchar2(32)*	Waveform data file name	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

3.1.41. EVENT

Owners:	LEB,REB
Category:	Core, Fundamental
Description:	The event table contains a list of events. Multiple origins may be defined for any one event.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	evid	*number(10,0)*	Event identifier	N
	evname	*varchar2(15)*	Event name	Y
	prefor	*number(10,0)*	Preferred origin	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	EVENT_PK(evid)
Indexes:	EVENTX(evid)

3.1.42. EVENT

Owners:	SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The event table contains a list of events. Multiple origins may be defined for any one event.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	evid	*number(10,0)*	Event identifier	N
	evname	*varchar2(15)*	Event name	Y
	prefor	*number(10,0)*	Preferred origin	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	EVENT_PK(evid)
Indexes:	EVENTX(evid), EVENT_LDDATEX(lddate)

3.1.43. EVENT_CONTROL

Owners:	REB
Category:	Automatic Processing
Description:	The event_control and in_event_control tables contain event location and magnitude control parameters. This information acts as an archive of the specific user-defined controls that were used to determine the location and magnitude of a given orid. The table also includes two measurement columns (cov_sm_axes and cov_depth_time) that allow the coverage ellipse to be determined from the confidence ellipse axes.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
	evid	*number(10,0)*	Event identifier	Y
	prefer_loc	*varchar2(1)*	Preferred location identifier (S, F, R)	Y
	constrain_ot	*number(1,0)*	Flag to constrain origin time	Y
	constrain_latlon	*number(1,0)*	Flag to constrain latitude/longitude	Y
	constrain_depth	*number(1,0)*	Flag to constrain depth	Y
	src_dpnt_corr	*number(2,0)*	Source-dependent correction code	Y
	loc_src_dpnt_reg	*varchar2(15)*	Region name of source-dependent location correction	Y
	loc_sdv_screen	*number(1,0)*	Flag to ignore large data residuals in location	Y
	loc_sdv_mult	*float(24)*	Location large residual multiplier factor	Y
	loc_alpha_only	*number(1,0)*	Flag to use only primary stations in location	Y
	loc_all_stas	*number(1,0)*	Flag to use only stations with src_dpnt_corr	Y
	loc_dist_varwgt	*number(1,0)*	Flag to use distance variance weighting	Y
	mag_src_dpnt_reg	*varchar2(15)*	Region name of source-dependent magnitude correction	Y
	mag_sdv_screen	*number(1,0)*	Flag to ignore large magnitude data residuals	Y
	mag_sdv_mult	*float(24)*	Magnitude large residual multiplier factor	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	mag_alpha_only	*number(1,0)*	Flag to limit station net used in magnitude	Y
	mag_all_stas	*number(1,0)*	Flag to use only primary stations in magnitude	Y
	mb_min_dist	*float(24)*	Minimum distance (degrees) for mb	Y
	mb_max_dist	*float(24)*	Maximum distance (degrees) for mb	Y
	mmodel	*varchar2(15)*	Network magnitude model	Y
	cov_sm_axes	*float(24)*	Coverage ellipse semi-axes conversion factor	Y
	cov_depth_time	*float(24)*	Coverage ellipse depth/time conversion factor	Y
	lddate	*date*	Load date	Y

Primary keys:	EVENT_CONTROL_PK(orid)
Indexes:	EVENT_CONTROLX(orid)

3.1.44. EVENT_CONTROL

Owners:	LEB
Category:	Automatic Processing
Description:	The event_control and in_event_control tables contain event location and magnitude control parameters. This information acts as an archive of the specific user-defined controls that were used to determine the location and magnitude of a given orid. The table also includes two measurement columns (cov_sm_axes and cov_depth_time) that allow the coverage ellipse to be determined from the confidence ellipse axes.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
I	evid	*number(10,0)*	Event identifier	Y
	prefer_loc	*varchar2(1)*	Preferred location identifier (S, F, R)	Y
	constrain_ot	*number(1,0)*	Flag to constrain origin time	Y
	constrain_latlon	*number(1,0)*	Flag to constrain latitude/longitude	Y
	constrain_depth	*number(1,0)*	Flag to constrain depth	Y
	src_dpnt_corr	*number(2,0)*	Source-dependent correction code	Y
	loc_src_dpnt_reg	*varchar2(15)*	Region name of source-dependent location correction	Y
	loc_sdv_screen	*number(1,0)*	Flag to ignore large data residuals in location	Y
	loc_sdv_mult	*float(24)*	Location large residual multiplier factor	Y
	loc_alpha_only	*number(1,0)*	Flag to use only primary stations in location	Y
	loc_all_stas	*number(1,0)*	Flag to use only stations with src_dpnt_corr	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	loc_dist_varwgt	*number(1,0)*	Flag to use distance variance weighting	Y
	mag_src_dpnt_reg	*varchar2(15)*	Region name of source-dependent magnitude correction	Y
	mag_sdv_screen	*number(1,0)*	Flag to ignore large magnitude data residuals	Y
	mag_sdv_mult	*float(24)*	Magnitude large residual multiplier factor	Y
	mag_alpha_only	*number(1,0)*	Flag to limit station net used in magnitude	Y
	mag_all_stas	*number(1,0)*	Flag to use only primary stations in magnitude	Y
	mb_min_dist	*float(24)*	Minimum distance (degrees) for mb	Y
	mb_max_dist	*float(24)*	Maximum distance (degrees) for mb	Y
	mmodel	*varchar2(15)*	Network magnitude model	Y
	cov_sm_axes	*float(24)*	Coverage ellipse semi-axes conversion factor	Y
	cov_depth_time	*float(24)*	Coverage ellipse depth/time conversion factor	Y
	lddate	*date*	Load date	Y

Primary keys:	EVENT_CONTROL_PK(orid)
Indexes:	EVNTCTRLEVIDX(evid), EVENT_CONTROLX(orid)

3.1.45. EVSC_HYDRO

Owners:	IDCX
Category:	Automatic Processing
Description:	The evsc_hydro table contains station-specific hydroacoustic event-screening results for the standard and custom subscription criteria. The table contains one record per origin identifier (orid) per station (sta).

Pk/Fk/I	Column	Storage type	Description	Null?
I	orid	*number(10,0)*	Origin identifier	Y
I	sta	*varchar2(6)*	Station code	Y
	cp_broad_band	*float(24)*	Hydroacoustic cepstral peak amplitude in 2-80 Hz band	Y
	snr_high_band	*float(24)*	Hydroacoustic signal-to-noise ratio in 32-64 Hz band	Y
	noise_high_band	*float(24)*	Hydroacoustic noise level in 32-64 Hz band	Y
	lddate	*date*	Load date	Y

Indexes:	ORIDSTANDX(orid, sta)

3.1.46. EVSC_PROD

Owners:	IDCX
Category:	Fundamental
Description:	The evsc_prod table contains event screening results for the standard and custom subscription criteria. The table contains one record per origin identifier (orid) for each subscription (prodid).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(10,0)*	Product identifier	N
PI	orid	*number(10,0)*	Origin identifier	N
	score	*float(24)*	Composite screening score	Y
	dscore	*float(24)*	Depth screening score	Y
	mscore	*float(24)*	Mb minus Ms screening score	Y
	rscore	*float(24)*	Regional P/S screening score	Y
	hscore	*float(24)*	Hydroacoustic screening score	Y
	depth	*float(24)*	Depth estimate (kilometers)	Y
	deptherr	*float(24)*	Depth confidence interval	Y
	moveout_pp	*float(24)*	Moveout of pP-P travel times	Y
	moveout_sp	*float(24)*	Moveout of sP-P travel times	Y
	min_dt_pp	*float(24)*	PP-P travel time difference at nearest station beyond 25 deg.	Y
	min_dt_sp	*float(24)*	SP-P travel time difference at nearest station beyond 25 deg.	Y
	ndp_snr_pp	*number(8,0)*	Number of pP phases with sufficient snr for moveout processing	Y
	ndp_snr_sp	*number(8,0)*	Number of sP phases with sufficient snr for moveout processing	Y
	mbms	*float(24)*	Mb minus Ms (including slope term)	Y
	mbmserr	*float(24)*	Mb minus Ms confidence interval	Y
	mb	*float(24)*	Mb magnitude used for event screening	Y
	ms	*float(24)*	Ms magnitude used for event screening	Y
	nsta_mb	*number(8,0)*	Number of stations used in network mb estimate	Y
	nsta_ms	*number(8,0)*	Number of stations used in network Ms estimate	Y
	smaj_sc	*float(24)*	Scaled semi-major axis of location error ellipse	Y
	smin_sc	*float(24)*	Scaled semi-minor axis of location error ellipse	Y
	strike	*float(24)*	Strike angle of location error ellipse semi-major	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			axis	
	pctoffsh	*float(24)*	Percent of location error ellipse that is offshore	Y
	min_wdepth	*float(24)*	Minimum water depth within location error ellipse	Y
	clrpth	*number(1,0)*	Indicator of clear path to at least one hydroacoustic station	Y
	consider	*number(1,0)*	Considered for event screening flag	Y
	lddate	*date*	Load date	Y

Primary keys:	EVSC_PROD_PK(prodid, orid)
Indexes:	PRODIDORIDNDX(prodid, orid)

3.1.47. EVSC_REGIONAL

Owners:	IDCX
Category:	Fundamental
Description:	The evsc_regional table contains station-specific regional seismic phase amplitude measurements and quality flags for the standard and subscription criteria. The table contains one record per origin identifier (orid) per station (sta).

Pk/Fk/I	Column	Storage type	Description	Null?
I	orid	*number(10,0)*	Origin identifier	Y
I	sta	*varchar2(6)*	Station code	Y
I	chan	*varchar2(8)*	Channel name	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	pnsmax	*float(24)*	Maximum of Pn/Sn and Pn/Lg	Y
	pnsmax_corr	*float(24)*	Amplitude ratio correction term	Y
	pnsmax_err	*float(24)*	Amplitude ratio error term	Y
	pnsn	*float(24)*	Pn/Sn amplitude ratio	Y
	pnlg	*float(24)*	Pn/Lg amplitude ratio	Y
	pn_snr	*float(24)*	Pn amplitude snr ratio	Y
	sn_snr	*float(24)*	Sn amplitude snr ratio	Y
	lg_snr	*float(24)*	Lg amplitude snr ratio	Y
	pnsn_qual	*varchar2(10)*	Pn/Sn amplitude ratio quality flags	Y
	pnlg_qual	*varchar2(10)*	Pn/Lg amplitude ratio quality flags	Y
	lddate	*date*	Load date	Y

Indexes:	ORIDSTACHANNDX(orid, sta, chan)

3.1.48. FILEPRODUCT

Owners:	IDCX
Category:	Data Services
Description:	The fileproduct table contains descriptions of data files containing products stored on the UNIX filesystem. The typeid column links to the corresponding text description of that product in the fpdescription table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	fpid	*number(10,0)*	File product identifier	N
	typeid	*number(10,0)*	Identifier for the product type	Y
	dir	*varchar2(64)*	Absolute path to the data file	Y
I	dfile	*varchar2(32)*	Name of file containing the fileproduct	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	dsize	*number(10,0)*	Size of the data file (in bytes)	Y
I	time	*float(53)*	Beginning time of the data	Y
I	endtime	*float(53)*	End time of the data	Y
	sta	*varchar2(6)*	Station code	Y
I	chan	*varchar2(8)*	Channel name	Y
	author	*varchar2(16)*	Author name	Y
	version	*float(53)*	Version of the author	Y
	revision	*number(4,0)*	Revision number	Y
	obsolete	*number(1,0)*	Flag to indicate whether (1) or not (0) the data are obsolete.	Y
I	lddate	*date*	Load date	Y

Primary keys:	FILEPRODUCT_PK(fpid)
Indexes:	FILEPROD_CHANX(chan), FILEPROD_FPIDX(fpid), FILEPROD_TIMEX(time), FILEPROD_LDDATEX(lddate), FILEPROD_ENDTIMEX(endtime), FILEPROD_DFILEX(dfile)
Triggers:	FILEPRODUCT_TO_DATAREADY

3.1.49. FORBEAMAUX

Owners:	STATIC
Category:	Data Services
Description:	The forbeamaux table contains the channels for which amplitude measurements in the event lists and bulletins have been made.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	sta	*varchar2(6)*	Station code	N
PI	chan	*varchar2(8)*	Channel name	N

Primary keys:	FORBEAMAUX_PK(sta, chan)
Indexes:	FORBEAMAUX_PK(sta, chan)

3.1.50. FPDESCRIPTION

Owners:	IDCX
Category:	Data Services
Description:	The fpdescription table contains descriptions of product types used with file products.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	typeid	*number(10,0)*	Identifier for the product type description	N
	prodtype	*varchar2(12)*	Name of the product (should be the same as the protocol defining name)	Y
	name	*varchar2(64)*	Descriptive listing of the product name	Y
	msgdtype	*varchar2(16)*	Type of data (ASCII, GIF89, and so on)	Y
	msgdformat	*varchar2(8)*	Format of the data, for example, binary, ps, IMS1.0, TXT, CD-1.1, CD-1.0, GSE2.0, IMS2.0).	Y
	header_fpid	*number(10,0)*	Fpid pointing to the header row for this product type	Y
	lddate	*date*	Load date	Y

Primary keys:	FPDESCRIPTION_PK(typeid)
Indexes:	FPDESCRIPTION_PK(typeid)

3.1.51. FRAMEPRODUCT

Owners:	IDCX
Category:	Data Services
Description:	Information relating to the location and content of bin files containing binary continuous data received at the IDC. Identical structure to the fileproduct table, except that frid (frame identifier) is used in the frameproduct table where fpid (fileproduct identifier) is used in the fileproduct.

Pk/Fk/I	Column	Storage type	Description	Null?
I	frid	*number(10,0)*	Frame identifier.	Y
	typeid	*number(10,0)*	Numeric identifier for the frame type description.	Y
	dir	*varchar2(64)*	Absolute path to the data file	Y
I	dfile	*varchar2(32)*	Name of the file containing all binary frames transferred between a source and a receiver	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	dsize	*number(10,0)*	Size of the data file (in bytes)	Y
I	time	*float(53)*	Start epochal time	Y
I	endtime	*float(53)*	End epochal time of data in the binary file	Y
	sta	*varchar2(6)*	Station code	Y
	chan	*varchar2(8)*	Channel name	Y
	author	*varchar2(16)*	Author name	Y
	version	*float(53)*	Version of the author	Y
	revision	*number(4,0)*	Revision number	Y
	obsolete	*number(1,0)*	Flag to indicate whether (1) or not (0) the data are obsolete.	Y
I	lddate	*date*	Load date	Y

Indexes:	FRAMEPROD_ENDTIMEX(endtime), FRAMEPROD_DFILEX(dfile), FRAMEPROD_TIMEX(time), FRAMEPROD_FRIDX(frid), FRAMEPROD_LDDATEX(lddate)

3.1.52. FTPFAILED

Owners:	IDCX
Category:	Data Services
Description:	The ftpfailed table contains information on FTP data retrieval by AutoDRM, including the msgid (linking to the msgdisc table), the destination address, number of failed attempts and the epochal time at which the transfer was last attempted.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	msgid	*number(10,0)*	Message identifier	N
	numfailedattempt	*number(4,0)*	Number of failed attempts	Y
	lastfailedtime	*float(53)*	Time of most recent attempt	Y
	ftp_address	*varchar2(64)*	FTP address	Y
	status	*varchar2(8)*	Status of this row.	Y
	lddate	*date*	Load date	Y

Primary keys:	FTPFAILED_PK(msgid)
Indexes:	FTPMSGIDX(msgid)

3.1.53. FTPLOGIN

Owners:	IDCX
Category:	Data Services
Description:	The ftplogin table contains log on information for FTP data retrieval. The rows are used by the auxiliary data retrieval system to obtain data via FTP from auxiliary stations.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	ftp_address	*varchar2(64)*	FTP address for auxiliary data	N
	username	*varchar2(16)*	UNIX login or user name component of email address	Y
	password	*varchar2(16)*	User password for FTP access	Y
	lddate	*date*	Load date	Y

Primary keys:	FTPLOGIN_PK(ftp_address)
Indexes:	FTPLOGIN_PK(ftp_address)

3.1.54. GA_TAG

Owners:	SEL1
Category:	Automatic Processing
Description:	The ga_tag table contains information on the use of arrivals and origins in the GA application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	objtype	*varchar2(1)*	Type of identifier (a for arrival, o for origin)	N
PI	id	*number(10,0)*	Identification number (arid or orid)	N
PI	state	*varchar2(20)*	Use of arid or orid by the Global Association (GA) subsystem	N

Primary keys:	GA_TAG_PK(objtype, id, state)
Indexes:	GAIDX(id, state), GA_TAG_PK(objtype, id, state)

3.1.55. GREGION

Owners:	STATIC
Category:	Core, Reference
Description:	The gregion table contains Flinn-Engdahl (F-E) geographic region numbers and their corresponding descriptions (see [Fli74]).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	grn	*number(8,0)*	Geographic region number	N
	grname	*varchar2(40)*	Geographic region name	Y
	lddate	*date*	Load date	Y

Primary keys:	GREGION_PK(grn)
Indexes:	GREGIONX(grn)

3.1.56. HISTORY

Owners:	IDCX
Category:	Automatic Processing
Description:	Contains information about the latest time at which data for a given station was most recently processed by the cd2w application and prevents data from being processed multiple times.

Pk/Fk/I	Column	Storage type	Description	Null?
I	dir	*varchar2(64)*	Absolute path to the data file	N

Pk/Fk/I	Column	Storage type	Description	Null?
I	dfile	*varchar2(32)*	Data file name	N
	binfoff	*number(10,0)*	Byte offset into the binary data file	Y
	clffoff	*number(10,0)*	Byte offset into the CLF file	Y
	foffdff	*number(10,0)*	Byte offset of the currently active data format frame (for CD-1.0 format data)	Y
	time	*float(53)*	Nominal time (epochal) of the last processed frame.	N
	pid	*number(6,0)*	Process identifier (pid) of the cd2w instance that inserted or last updated this row	Y
	host	*varchar2(24)*	Hostname of the cd2w instance that inserted or last updated this row	Y
I	lddate	*date*	Load date	Y

Indexes:	HISTORY_DIR_DFILEX(dir, dfile), HISTORY_LDDATEX(lddate)

3.1.57. HYDRO_ARR_GROUP

Owners:	IDCX,LEB,REB
Category:	Fundamental
Description:	The hydro_arr_group table contains hydroacoustic arrival based estimates of slowness and azimuth.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	hydro_id	*number(10,0)*	Hydro-arrival-group identifier	N
	az1	*float(24)*	Azimuth estimated from lag times	Y
	az2	*float(24)*	Second possible azimuth (2 arrivals)	Y
	slow	*float(24)*	Slowness (s/km)	Y
	delaz	*float(24)*	Azimuth uncertainty	Y
	nhydarr	*number(4,0)*	Number of arrivals in hydro-arrival-group	Y
	net	*varchar2(8)*	Network identification string	Y
	hyd_grp_phase	*varchar2(8)*	Hydro-arrival-group phase	Y
	lddate	*date*	Load date	Y

Primary keys:	HYDRO_ARR_GROUP_PK(hydro_id)
Indexes:	HYDRO_ARR_GROUP_HIDX(hydro_id)

3.1.58. HYDRO_ASSOC

Owners:	IDCX,LEB,REB
Category:	Fundamental
Description:	The hydro_assoc table contains hydroacoustic arrival based estimates of slowness and azimuth.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
I	hydro_id	*number(10,0)*	Hydro-arrival-group identifier	N
	azcontrib	*varchar2(1)*	Azimuth contribution flag (y or n)	Y
	lddate	*date*	Load date	Y

Primary keys:	HYDRO_ASSOC_PK(arid)
Indexes:	HYDRO_ASSOC_ARIDX(arid, hydro_id), HYDRO_ASSOC_HIDX(hydro_id, arid)

3.1.59. HYDRO_FEATURES

Owners:	LEB,REB
Category:	Fundamental
Description:	The hydro_features table contains feature measurements for hydroacoustic data by the Detection and Feature Extraction (DFX) application.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	N
	peak_time	*float(53)*	Time of largest absolute signal value	Y
	peak_level	*float(24)*	Pressure of largest absolute signal value	Y
	total_energy	*float(24)*	Total energy in signal	Y
	mean_arrival_time	*float(53)*	Mean arrival time of signal energy	Y
	time_spread	*float(24)*	Rms time spread of signal	Y
	onset_time	*float(53)*	Estimated onset time of signal	Y
	termination_time	*float(53)*	Estimated termination time of signal	Y
	total_time	*float(53)*	Total time above threshold	Y
	num_cross	*number(8,0)*	Number of signal threshold crossings	Y
	ave_noise	*float(24)*	Average pressure of the noise segment	Y
	skewness	*float(24)*	Skew of the estimated signal energy	Y
	kurtosis	*float(24)*	Kurtosis of the estimated signal energy	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	cep_var_signal	*float(24)*	Variance of the cepstrum using spectrum	Y
	cep_delay_time_signal	*float(24)*	Bubble pulse delay time using spectrum	Y
	cep_peak_std_signal	*float(24)*	Number of standard deviations from the mean for amplitude using spectrum	Y
	cep_var_trend	*float(24)*	Variance of the cepstrum detrended using Noise Spectrum Equalization (NSE)	Y
	cep_delay_time_trend	*float(24)*	Bubble pulse delay time estimate using trend NSE	Y
	cep_peak_std_trend	*float(24)*	Number of standard deviations from the mean for amplitude using the trend	Y
	low_cut	*float(24)*	Low-cut frequency of filter	Y
	high_cut	*float(24)*	High-cut frequency of filter	Y
	ford	*number(8,0)*	Filter order	Y
	ftype	*varchar2(2)*	Filter type	Y
	fzp	*number(8,0)*	Filter causality	Y
	prob_weight_time	*float(53)*	Probability-weighted time	Y
	sigma_time	*float(53)*	Variance of the probability-weighted time	Y
	lddate	*date*	Load date	Y

Indexes:	HYDARIDX(arid)

3.1.60. HYDRO_FEATURES

Owners:	IDCX
Category:	Fundamental
Description:	The hydro_features table contains feature measurements for hydroacoustic data by the Detection and Feature Extraction (DFX) application.

Pk/Fk/I	Column	Storage type	Description	Null?
I	arid	*number(10,0)*	Arrival identifier	N
	peak_time	*float(53)*	Time of largest absolute signal value	Y
	peak_level	*float(24)*	Pressure of largest absolute signal value	Y
	total_energy	*float(24)*	Total energy in signal	Y
	mean_arrival_time	*float(53)*	Mean arrival time of signal energy	Y
	time_spread	*float(24)*	Rms time spread of signal	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	onset_time	*float(53)*	Estimated onset time of signal	Y
	termination_time	*float(53)*	Estimated termination time of signal	Y
	total_time	*float(53)*	Total time above threshold	Y
	num_cross	*number(8,0)*	Number of signal threshold crossings	Y
	ave_noise	*float(24)*	Average pressure of the noise segment	Y
	skewness	*float(24)*	Skew of the estimated signal energy	Y
	kurtosis	*float(24)*	Kurtosis of the estimated signal energy	Y
	cep_var_signal	*float(24)*	Variance of the cepstrum using spectrum	Y
	cep_delay_time_signal	*float(24)*	Bubble pulse delay time using spectrum	Y
	cep_peak_std_signal	*float(24)*	Number of standard deviations from the mean for amplitude using spectrum	Y
	cep_var_trend	*float(24)*	Variance of the cepstrum detrended using Noise Spectrum Equalization (NSE)	Y
	cep_delay_time_trend	*float(24)*	Bubble pulse delay time estimate using trend NSE	Y
	cep_peak_std_trend	*float(24)*	Number of standard deviations from the mean for amplitude using the trend	Y
	low_cut	*float(24)*	Low-cut frequency of filter	Y
	high_cut	*float(24)*	High-cut frequency of filter	Y
	ford	*number(8,0)*	Filter order	Y
	ftype	*varchar2(2)*	Filter type	Y
	fzp	*number(8,0)*	Filter causality	Y
	prob_weight_time	*float(53)*	Probability-weighted time	Y
	sigma_time	*float(53)*	Variance of the probability-weighted time	Y
I	lddate	*date*	Load date	Y

Indexes:	HYDARIDX(arid), HYDRO_FEATURES_LDDATEX(lddate)

3.1.61. INSTRUMENT

Owners:	STATIC
Category:	Core, Reference
Description:	The instrument table contains ancillary calibration information. This table holds nominal one-frequency calibration factors for each instrument and pointers to the nominal frequency-dependent calibration for an instrument. It also holds pointers to the exact calibrations obtained by direct measurement on a particular instrument (see sensor).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	inid	*number(8,0)*	Instrument identifier	N
	insname	*varchar2(50)*	Instrument name	Y
	instype	*varchar2(6)*	Instrument type (e.g. CMG3ES, Akashi, HMP45A)	Y
	band	*varchar2(1)*	Frequency band	Y
	digital	*varchar2(1)*	Data type, digital (d), or analog (a)	Y
	samprate	*float(24)*	Sample rate for this record (samples per second)	Y
	ncalib	*float(24)*	Nominal calibration (nanometers/digital count)	Y
	ncalper	*float(24)*	Nominal calibration period (seconds)	Y
	dir	*varchar2(64)*	Absolute path to the data file	Y
	dfile	*varchar2(32)*	Instrument response file name	Y
	rsptype	*varchar2(6)*	Response type	Y
	lddate	*date*	Load date	Y

Primary keys:	INSTRUMENT_PK(inid)
Indexes:	INSTRUMENTX(inid)

3.1.62. INTERVAL

Owners:	IDCX
Category:	Distributed Processing
Description:	The interval table defines units of processing. The time, endtime, and name fields indicate processing times for a named object. The class field allows a single interval table to be used for different classes of objects.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	intvlid	*number(10,0)*	Interval identifier	N
I	class	*varchar2(16)*	Type of interval	N
I	name	*varchar2(20)*	String identifying the content of the interval	N
	time	*float(53)*	Starting time of data	Y
I	endtime	*float(53)*	Ending time of data	Y
I	state	*varchar2(16)*	Current processing state	Y
I	moddate	*date*	Time of last processing state change	Y
	lddate	*date*	Load date	Y

Primary keys:	INTERVAL_PK(intvlid)
Indexes:	INMODX(moddate), INTERVAL_INTVLIDX(intvlid), INENDX(endtime), IDX$_00001(name, state, class, moddate), INCLASSX(class, name, endtime)

3.1.63. INTERVAL

Owners:	MIGRATE
Category:	Distributed Processing
Description:	The interval table defines units of processing. The time, endtime, and name fields indicate processing times for a named object. The class field allows a single interval table to be used for different classes of objects.

Pk/Fk/I	Column	Storage type	Description	Null?
P	intvlid	*number(10,0)*	Interval identifier	N
I	class	*varchar2(16)*	Type of interval	N
I	name	*varchar2(20)*	String identifying the content of the interval	N
	time	*float(53)*	Starting time of data	Y
I	endtime	*float(53)*	Ending time of data	Y
	state	*varchar2(16)*	Current processing state	Y
I	moddate	*date*	Time of last processing state change	Y
	lddate	*date*	Load date	Y

Primary keys:	INTERVAL_PK(intvlid)
Indexes:	INMODX(moddate), INENDX(endtime), INCLASSX(class, name, endtime)

3.1.64. LASTID

Owners:	SEGMENT
Category:	Database and Utility
Description:	The lastid table contains counter values (last value used for keys). This table is a reference table from which programs may retrieve the last sequential value of one of the numeric keys. Unique keys are required before inserting a record in numerous tables. The table has exactly one row for each keyname. Problastid and rms_lastid are views of the lastid table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	keyname	*varchar2(15)*	Identifier name (arid, orid, and so on)	N
	keyvalue	*number(10,0)*	Last value used for the identifier specified in the keyname column	N
	lddate	*date*	Load date	Y

Primary keys:	LASTID_PK(keyname)
Indexes:	LASTIDX(keyname)

3.1.65. LASTID

Owners:	IDCX
Category:	Database and Utility
Description:	The lastid table contains counter values (last value used for keys). This table is a reference table from which programs may retrieve the last sequential value of one of the numeric keys. Unique keys are required before inserting a record in numerous tables. The table has exactly one row for each keyname. Problastid and rms_lastid are views of the lastid table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	keyname	*varchar2(15)*	Identifier name (arid, orid, and so on)	N
	keyvalue	*number(10,0)*	Last value used for the identifier specified in the keyname column	N
	lddate	*date*	Load date	Y

Primary keys:	LASTID_PK(keyname)
Indexes:	LASTIDX(keyname)
Triggers:	LOGLASTIDINFO

3.1.66. MAPCOLOR

Owners:	MAP
Category:	Interactive Processing
Description:	The mapcolor table contains information to associate a mapid from the mapdisc table with a colormapid from the colordisc table. This table is used to plot the same map (mapid) in different colors (for example, brown, green, or outline).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	mapid	*number(8,0)*	Map identifier	N
PI	colormapid	*number(8,0)*	Colormap identifier	N
	lddate	*date*	Load date	N

Primary keys:	MAPCOLOR_PK(mapid, colormapid)
Indexes:	MAPCOLOR_PK(mapid, colormapid)

3.1.67. MAPDISC

Owners:	MAP
Category:	Interactive Processing
Description:	The mapdisc table contains information about map files that are on disk.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	mapid	*number(8,0)*	Map identifier	N
	mapname	*varchar2(64)*	Map name	N
	dfile	*varchar2(32)*	Map data filename	N
	dir	*varchar2(64)*	Absolute path to the data file	N
	maptype	*number(8,0)*	Map type	N
	mapfiletype	*varchar2(4)*	Map file type	N
	projection	*number(8,0)*	Map projection	N
	dimx	*number(8,0)*	Map x dimension	N
	dimy	*number(8,0)*	Map y dimension	N
	reflon	*float(24)*	Reference longitude	Y
	reflat	*float(24)*	Reference latitude	Y
	refoffsetlon	*float(24)*	Longitude reference offset	Y
	refoffsetlat	*float(24)*	Latitude reference offset	Y
	lonorigradians	*float(24)*	Longitude origin radians	Y
	latorigradians	*float(24)*	Latitude origin radians	Y
	scale	*float(24)*	Map scale	Y
	rotation	*float(24)*	Map rotation	Y
	latminor	*float(24)*	Latitude interval for minor grid lines	Y
	latmajor	*float(24)*	Latitude interval for major grid lines	Y
	lonminor	*float(24)*	Longitude interval for minor grid lines	Y
	lonmajor	*float(24)*	Longitude interval for major grid lines	Y
	bordercolor	*varchar2(32)*	Border color name	Y
	label	*varchar2(65)*	Map category	Y
	lddate	*date*	Load date	N
	gctp1	*float(24)*	General cartographic transformation package variables	Y
	gctp2	*float(24)*	General cartographic transformation package variables	Y
	gctp3	*float(24)*	General cartographic transformation package	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			variables	
	gctp4	*float(24)*	General cartographic transformation package variables	Y
	gctp5	*float(24)*	General cartographic transformation package variables	Y
	gctp6	*float(24)*	General cartographic transformation package variables	Y
	gctp7	*float(24)*	General cartographic transformation package variables	Y
	gctp8	*float(24)*	General cartographic transformation package variables	Y
	gctp9	*float(24)*	General cartographic transformation package variables	Y
	gctp10	*float(24)*	General cartographic transformation package variables	Y
	gctp11	*float(24)*	General cartographic transformation package variables	Y
	gctp12	*float(24)*	General cartographic transformation package variables	Y
	gctp13	*float(24)*	General cartographic transformation package variables	Y
	gctp14	*float(24)*	General cartographic transformation package variables	Y
	gctp15	*float(24)*	General cartographic transformation package variables	Y

Primary keys:	MAPDISC_PK(mapid)
Indexes:	MAPDISC_PK(mapid)

3.1.68. MAPOVER

Owners:	MAP
Category:	Interactive Processing
Description:	The mapover table contains links between the mapdisc and overlaydisc tables.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	mapid	*number(8,0)*	Map identifier	N
PI	overlayid	*number(8,0)*	Overlay identifier	N

Pk/Fk/I	Column	Storage type	Description	Null?
	lddate	*date*	Load date	N

Primary keys:	MAPOVER_PK(mapid, overlayid)
Indexes:	MAPOVER_PK(mapid, overlayid)

3.1.69. MAPPOINT

Owners:	MAP
Category:	Interactive Processing
Description:	The mappoint table contains labeled point data to be displayed by the Map application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	lat	*float(24)*	Geographic latitude. Locations north of the equator have positive latitudes.	N
PI	lon	*float(24)*	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.	N
	mplabel	*varchar2(65)*	Map point label	Y
PI	mptype	*varchar2(20)*	Map point type	N
	mpdescrip	*varchar2(50)*	Map point description	Y
	lddate	*date*	Load date	N

Primary keys:	MAPPOINT_PK(lat, lon, mptype)
Indexes:	MAPPOINT_PK(lat, lon, mptype)

3.1.70. MIG_DATE

Owners:	MIGRATE
Category:	Data Services
Description:	The mig_date table is used by the MigrateData application to track table migration.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	procclass	*varchar2(16)*	Process class	N
PI	procname	*varchar2(16)*	Process name	N
	last_mig_date	*date*	Last migration date	Y
	lddate	*date*	Load date	Y

Primary keys:	MIG_DATE_PK(procclass, procname)
Indexes:	MIG_DATE_PK(procclass, procname)

3.1.71. MIG_RULES

Owners:	MIGRATE
Category:	Data Services
Description:	The mig_rules table contains rules for migrating database tables from one database table to another. The rules are used by the MigrateData application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	task_num	*number*	Order of this task	N
PI	query_type	*varchar2(20)*	Type of query	N
	src	*varchar2(10)*	Source database	N
PI	src_tbl	*varchar2(30)*	Source database table name	N
	dest	*varchar2(10)*	Destination database	N
	dest_tbl	*varchar2(30)*	Destination database table name	N
	query_seq_no	*number*	Query sequence number (starting at 1)	N
	seq_type	*varchar2(15)*	Type of sequence to be added to the query	N
	seq_contents	*varchar2(200)*	Query contents	Y

Primary keys:	MIG_RULES_PK(task_num, query_type, src_tbl)
Indexes:	MIG_RULES_PK(task_num, query_type, src_tbl)

3.1.72. MSGAUX

Owners:	IDCX
Category:	Data Services
Description:	The msgaux table contains records of unsuccessfully processed AutoDRM messages.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	msgid	*number(10,0)*	Message identifier	N
PI	msgrow	*number(4,0)*	Line number in message	N
PI	state_count	*number(4,0)*	Number of failures	N
	command	*varchar2(24)*	AutoDRM command that could not be processed	Y
	sub_status	*varchar2(24)*	Cause of failure	Y
I	lddate	*date*	Load date	Y

Primary keys:	MSGAUX_PK(msgid, msgrow, state_count)
Indexes:	MGSXMSGIDX(msgid), MSGAUX_PK(msgid, msgrow, state_count), MSGAUX_LDDATEX(lddate)

3.1.73. MSGDATATYPE

Owners:	IDCX
Category:	Data Services
Description:	The msgdatatype table supports data tracking by recording each data section in a message for both incoming and outgoing AutoDRM data messages.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	msgid	*number(10,0)*	Message identifier	N
	msgdtype	*varchar2(16)*	Data type of the data section within the message	Y
	msgdformat	*varchar2(16)*	Format of the data, currently one of GSE2.0, IMS1.0 or IMS2.0.	Y
	status	*varchar2(32)*	Status of this row.	Y
PI	foff	*number(8,0)*	Byte offset of data segment within file	N
	msize	*number(8,0)*	Size of data section	Y
I	lddate	*date*	Load date	Y

Primary keys:	MSGDATATYPE_PK(msgid, foff)
Indexes:	MSGDATATYPE_PK(msgid, foff), MSGTYPMSGIDX(msgid), MSGDATATYPE_LDDATEX(lddate)

3.1.74. MSGDEST

Owners:	IDCX
Category:	Data Services
Description:	The msgdest table contains information about AutoDRM messages sent from the IDC.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	msgdid	*number(10,0)*	Message destination identifier	N
I	msgid	*number(10,0)*	Message identifier of the AutoDRM response	Y
	transmeth	*varchar2(16)*	Method by which the response is to be delivered to the requester	Y
	emailto	*varchar2(64)*	Email address to send message	Y
I	status	*varchar2(32)*	Status of this row.	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	itime	*float(53)*	Initial time when message was received	Y
	stime	*float(53)*	Epochal time at which message was sent	Y
I	lddate	*date*	Load date	Y

Primary keys:	MSGDEST_PK(msgdid)
Indexes:	MSGDSTSTATX(status), MSGDESTX(msgdid), MSGDSTMSGIDZ(msgid), MSGDEST_LDDATEX(lddate)

3.1.75. MSGDISC

Owners:	IDCX
Category:	Data Services
Description:	The msgdisc table contains information pertinent to AutoDRM messages including the date and time that the message was sent or received, identification information, and where the message is stored.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	msgid	*number(10,0)*	Message identifier	N
	userid	*number(8,0)*	User identifier	Y
	msgver	*varchar2(8)*	Message system version number	Y
	msgtype	*varchar2(16)*	Message type	Y
	subtype	*varchar2(2)*	Message subtype	Y
	extmsgid	*varchar2(20)*	Message identification string provided by the sender	Y
I	intid	*number(10,0)*	Internal identifier for message tracking	Y
	intidtype	*varchar2(16)*	Identifier type for the intid	Y
	msgsrc	*varchar2(16)*	Message source code	Y
I	itime	*float(53)*	Initial time when message was received	Y
I	idate	*number(8,0)*	Initial date message was received	Y
	imethod	*varchar2(8)*	Input method (email or ftp)	Y
	isrc	*varchar2(64)*	Initial source of message	Y
	msize	*number(10,0)*	Message size in bytes	Y
I	status	*varchar2(32)*	Status of this row.	Y
	subject	*varchar2(64)*	Subject header from email message	Y
I	dir	*varchar2(64)*	Absolute path to the data file	Y
	dfile	*varchar2(32)*	Name of message file	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	mfoff	*number(10,0)*	Offset in bytes to beginning of message	Y
	fileoff	*number(10,0)*	Number of bytes to the first character of the email file (first character of the email header)	Y
	filesize	*number(10,0)*	Size of file	Y
	sigtype	*varchar2(64)*	Digital signature type	Y
	verifstatus	*varchar2(4)*	Authentication status	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	MSGDISC_PK(msgid)
Indexes:	INTIDNX(intid), MSGSTATNX(status), MSGDIRX(dir), MSGIDNX(msgid), MSGIDATENX(idate), MSGLDDX(lddate), MSGDISC_ITIMEX(itime)

3.1.76. NA_VALUE

Owners:	IDCX
Category:	Database and Utility
Description:	The na_value table contains the default values to be inserted for a column when not available.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	attribute	*varchar2(30)*	Column name	N
	na_value	*varchar2(30)*	Value inserted when not available	Y

Primary keys:	NA_VALUE_PK(attribute)
Indexes:	NA_VALUE_PK(attribute)

3.1.77. NETMAG

Owners:	LEB,REB,SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The netmag table contains estimates of network magnitudes of different types for an event. Each network magnitude has a unique magid. Station magnitudes used to compute the network magnitude are in the stamag table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	magid	*number(10,0)*	Network magnitude identifier	N

Pk/Fk/I	Column	Storage type	Description	Null?
	net	*varchar2(8)*	Unique network identifier	Y
I	orid	*number(10,0)*	Origin identifier	N
	evid	*number(10,0)*	Event identifier	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	nsta	*number(8,0)*	Number of stations used	Y
	magnitude	*float(24)*	Magnitude	Y
	uncertainty	*float(24)*	Magnitude uncertainty	Y
	auth	*varchar2(15)*	Source/originator	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	NETMAG_PK(magid)
Indexes:	NETMAGX(magid), NETMAG_LDDATEX(lddate), NMORIDX(orid)

3.1.78. NETWORK

Owners:	STATIC
Category:	Core, Reference
Description:	The network table contains general information about seismic networks (see affiliation).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	net	*varchar2(8)*	Network identification string	N
	netname	*varchar2(80)*	Network name	Y
	nettype	*varchar2(4)*	Network type: array, local, world-wide, and so on	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	NETWORK_PK(net)
Indexes:	NETWORK_PK(net)

3.1.79. ORIGERR

Owners:	IDCX,REB
Category:	Core, Fundamental
Description:	The origerr table contains summaries of confidence bounds in origin estimations. The measurement fields are the elements of the location covariance matrix. The descriptive fields give the uncertainties in location, depth, and origin time. These quantities are calculated from the covariance matrix, assuming gaussian errors and a confidence level conf.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
	sxx	*float(24)*	Covariance matrix element	Y
	syy	*float(24)*	Covariance matrix element	Y
	szz	*float(24)*	Covariance matrix element	Y
	stt	*float(24)*	Covariance matrix element	Y
	sxy	*float(24)*	Covariance matrix element	Y
	sxz	*float(24)*	Covariance matrix element	Y
	syz	*float(24)*	Covariance matrix element	Y
	stx	*float(24)*	Covariance matrix element	Y
	sty	*float(24)*	Covariance matrix element	Y
	stz	*float(24)*	Covariance matrix element	Y
	sdobs	*float(24)*	Standard error of observations	Y
	smajax	*float(24)*	Semi-major axis of error	Y
	sminax	*float(24)*	Semi-minor axis of error	Y
	strike	*float(24)*	Strike angle of location error ellipse semi-major axis	Y
	sdepth	*float(24)*	Depth error	Y
	stime	*float(24)*	Origin time error (seconds)	Y
	conf	*float(24)*	Confidence	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	ORIGERR_PK(orid)
Indexes:	ORIGERRX(orid)

3.1.80. ORIGERR

Owners:	LEB,SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The origerr table contains summaries of confidence bounds in origin estimations. The measurement fields are the elements of the location covariance matrix. The descriptive fields give the uncertainties in location, depth, and origin time. These quantities are calculated from the covariance matrix, assuming gaussian errors and a confidence level conf.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
	sxx	*float(24)*	Covariance matrix element	Y
	syy	*float(24)*	Covariance matrix element	Y
	szz	*float(24)*	Covariance matrix element	Y
	stt	*float(24)*	Covariance matrix element	Y
	sxy	*float(24)*	Covariance matrix element	Y
	sxz	*float(24)*	Covariance matrix element	Y
	syz	*float(24)*	Covariance matrix element	Y
	stx	*float(24)*	Covariance matrix element	Y
	sty	*float(24)*	Covariance matrix element	Y
	stz	*float(24)*	Covariance matrix element	Y
	sdobs	*float(24)*	Standard error of observations	Y
	smajax	*float(24)*	Semi-major axis of error	Y
	sminax	*float(24)*	Semi-minor axis of error	Y
	strike	*float(24)*	Strike angle of location error ellipse semi-major axis	Y
	sdepth	*float(24)*	Depth error	Y
	stime	*float(24)*	Origin time error (seconds)	Y
	conf	*float(24)*	Confidence	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	ORIGERR_PK(orid)
Indexes:	ORIGERR_LDDATEX(lddate), ORIGERRX(orid)

3.1.81. ORIGERR_TEMP_GA

Owners:	SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The origerr_temp_ga table is used by the GA application to store temporary origin error information. Its structure is identical to the ORIGERR table. The measurement fields are the elements of the location covariance matrix. The descriptive fields give the uncertainties in location, depth, and origin time. These quantities are calculated from the covariance matrix, assuming gaussian errors and a confidence level conf.

Pk/Fk/I	Column	Storage type	Description	Null?
I	orid	*number(10,0)*	Origin identifier	N
	sxx	*float(24)*	Covariance matrix element	Y
	syy	*float(24)*	Covariance matrix element	Y
	szz	*float(24)*	Covariance matrix element	Y
	stt	*float(24)*	Covariance matrix element	Y
	sxy	*float(24)*	Covariance matrix element	Y
	sxz	*float(24)*	Covariance matrix element	Y
	syz	*float(24)*	Covariance matrix element	Y
	stx	*float(24)*	Covariance matrix element	Y
	sty	*float(24)*	Covariance matrix element	Y
	stz	*float(24)*	Covariance matrix element	Y
	sdobs	*float(24)*	Standard error of observations	Y
	smajax	*float(24)*	Semi-major axis of error	Y
	sminax	*float(24)*	Semi-minor axis of error	Y
	strike	*float(24)*	Strike angle of location error ellipse semi-major axis	Y
	sdepth	*float(24)*	Depth error	Y
	stime	*float(24)*	Origin time error (seconds)	Y
	conf	*float(24)*	Confidence	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

3.1.82. ORIGIN

Owners:	IDCX,LEB,SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The origin table contains information describing a derived or reported origin for a particular event.

Pk/Fk/I	Column	Storage type	Description	Null?
	lat	*float(24)*	Estimated latitude	N
	lon	*float(24)*	Estimated longitude	N
	depth	*float(24)*	Estimated depth (kilometers)	N
I	time	*float(53)*	Epoch time	N
PI	orid	*number(10,0)*	Unique origin identifier	N
	evid	*number(10,0)*	Event identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	nass	*number(4,0)*	Number of associated phases	Y
	ndef	*number(4,0)*	Number of time-defining phases	Y
	ndp	*number(4,0)*	Number of depth phases	Y
	grn	*number(8,0)*	Geographic region number	Y
	srn	*number(8,0)*	Seismic region number, as given in [Fli74]	Y
	etype	*varchar2(7)*	Event type	Y
	depdp	*float(24)*	Estimated depth from depth phases	Y
	dtype	*varchar2(1)*	Depth method used	Y
	mb	*float(24)*	Body wave magnitude	Y
	mbid	*number(10,0)*	Mb magnitude identifier	Y
	ms	*float(24)*	Surface wave magnitude (Ms)	Y
	msid	*number(10,0)*	Ms magnitude identifier	Y
	ml	*float(24)*	Local magnitude	Y
	mlid	*number(10,0)*	ML magnitude identifier	Y
	algorithm	*varchar2(15)*	Location algorithm used	Y
	auth	*varchar2(15)*	Source/originator	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	ORIGIN_PK(orid)
Indexes:	ORTIMEX(time), ORIGIN_LDDATEX(lddate), ORIGINX(orid)

3.1.83. ORIGIN

Owners:	REB
Category:	Core, Fundamental
Description:	The origin table contains information describing a derived or reported origin for a particular event.

Pk/Fk/I	Column	Storage type	Description	Null?
	lat	*float(24)*	Estimated latitude	N
	lon	*float(24)*	Estimated longitude	N
	depth	*float(24)*	Estimated depth (kilometers)	N
I	time	*float(53)*	Epoch time	N
PI	orid	*number(10,0)*	Unique origin identifier	N
	evid	*number(10,0)*	Event identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	nass	*number(4,0)*	Number of associated phases	Y
	ndef	*number(4,0)*	Number of time-defining phases	Y
	ndp	*number(4,0)*	Number of depth phases	Y
	grn	*number(8,0)*	Geographic region number	Y
	srn	*number(8,0)*	Seismic region number, as given in [Fli74]	Y
	etype	*varchar2(7)*	Event type	Y
	depdp	*float(24)*	Estimated depth from depth phases	Y
	dtype	*varchar2(1)*	Depth method used	Y
	mb	*float(24)*	Body wave magnitude	Y
	mbid	*number(10,0)*	Mb magnitude identifier	Y
	ms	*float(24)*	Surface wave magnitude (Ms)	Y
	msid	*number(10,0)*	Ms magnitude identifier	Y
	ml	*float(24)*	Local magnitude	Y
	mlid	*number(10,0)*	ML magnitude identifier	Y
	algorithm	*varchar2(15)*	Location algorithm used	Y
	auth	*varchar2(15)*	Source/originator	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	ORIGIN_PK(orid)
Indexes:	ORTIMEX(time), ORIGINX(orid)

3.1.84. ORIGIN_TEMP_GA

Owners:	SEL1,SEL2,SEL3
Category:	Core, Fundamental
Description:	The origin_temp_ga table contains information describing a derived or reported origin for a particular event. Its structure is identical to the ORIGIN table. The origin_temp_ga table is used by the GA application to store temporary origins.

Pk/Fk/I	Column	Storage type	Description	Null?
	lat	*float(24)*	Geographic latitude. Locations north of the equator have positive latitudes.	N
	lon	*float(24)*	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.	N
	depth	*float(24)*	Estimated depth (kilometers)	N
I	time	*float(53)*	Epoch time	N
I	orid	*number(10,0)*	Origin identifier	N
	evid	*number(10,0)*	Event identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	nass	*number(4,0)*	Number of associated phases	Y
	ndef	*number(4,0)*	Number of time-defining phases	Y
	ndp	*number(4,0)*	Number of depth phases	Y
	grn	*number(8,0)*	Geographic region number	Y
	srn	*number(8,0)*	Seismic region number, as given in [Fli74]	Y
	etype	*varchar2(7)*	Event type	Y
	depdp	*float(24)*	Estimated depth from depth phases	Y
	dtype	*varchar2(1)*	Depth method used	Y
	mb	*float(24)*	Body wave magnitude	Y
	mbid	*number(10,0)*	Mb magnitude identifier	Y
	ms	*float(24)*	Surface wave magnitude (Ms)	Y
	msid	*number(10,0)*	Ms magnitude identifier	Y
	ml	*float(24)*	Local magnitude	Y
	mlid	*number(10,0)*	ML magnitude identifier	Y
	algorithm	*varchar2(15)*	Location algorithm used	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	OTGTIMEX(time), ORIGIN_TEMP_GAX(orid)

3.1.85. OUTAGE

Owners:	IDCX
Category:	Data Services
Description:	The outage table contains the availability of time-series data. If the available column is set to "f," it specifies that no data are available for the interval. Conversely, the outage table can be used to specify that data are available for an interval by setting the available column to "t."

Pk/Fk/I	Column	Storage type	Description	Null?
I	otgid	*number(10,0)*	Outage identifier	N
I	sta	*varchar2(6)*	Station code	N
I	chan	*varchar2(8)*	Channel name	Y
	auxid	*varchar2(4)*	Auxiliary identification code	Y
I	time	*float(53)*	Start time of outage interval	Y
	endtime	*float(53)*	End time of outage interval	Y
	status	*varchar2(32)*	Status of this row.	Y
	auth	*varchar2(15)*	Source/originator of outage report	Y
	available	*varchar2(1)*	Flag to specify if data are unavailable (f) or available (t)	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	OUTAGEX(otgid), OTGTIMEX(time), OTGSTAX(sta, chan, time)

3.1.86. OVERLAYDISC

Owners:	MAP
Category:	Interactive Processing
Description:	The overlaydisc table contains the location of the overlays for the Map application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	overlayid	*number(8,0)*	Overlay identifier	N
	overlayname	*varchar2(64)*	Overlay name	N
	dfile	*varchar2(32)*	Name of overlay file	N
	dir	*varchar2(64)*	Absolute path to the data file	N

Pk/Fk/I	Column	Storage type	Description	Null?
	colorname	*varchar2(32)*	Overlay color name	N
	lddate	*date*	Load date	N

Primary keys:	OVERLAYDISC_PK(overlayid)
Indexes:	OVERLAYDISC_PK(overlayid)

3.1.87. PARRIVAL

Owners:	SEL3
Category:	Fundamental
Description:	The parrival table contains the predicted arrivals and associations for origin-based amplitude measurements.

Pk/Fk/I	Column	Storage type	Description	Null?
P	parid	*number(10,0)*	Predicted arrival identifier	N
	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	sta	*varchar2(6)*	Station code	Y
	time	*float(53)*	Epoch time	Y
	azimuth	*float(24)*	Azimuth	Y
	slow	*float(24)*	Predicted slowness for an arrival (s/deg)	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	vmodel	*varchar2(15)*	Velocity model	Y
	lddate	*date*	Load date	Y

Primary keys:	PARRIVAL_PK(parid)

3.1.88. PARRIVAL

Owners:	REB
Category:	Fundamental
Description:	The parrival table contains the predicted arrivals and associations for origin-based amplitude measurements.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	parid	*number(10,0)*	Predicted arrival identifier	N

Pk/Fk/I	Column	Storage type	Description	Null?
I	orid	*number(10,0)*	Origin identifier	Y
I	evid	*number(10,0)*	Event identifier	Y
	sta	*varchar2(6)*	Station code	Y
	time	*float(53)*	Epoch time	Y
	azimuth	*float(24)*	Azimuth	Y
	slow	*float(24)*	Predicted slowness for an arrival (s/deg)	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	vmodel	*varchar2(15)*	Velocity model	Y
I	lddate	*date*	Load date	Y

Primary keys:	PARRIVAL_PK(parid)
Indexes:	PAREVIDX(evid), PARRORIDX(orid), PARRIVALX(parid), PARRIVAL_LDDATEX(lddate)

3.1.89. PARRIVAL

Owners:	LEB
Category:	Fundamental
Description:	The parrival table contains the predicted arrivals and associations for origin-based amplitude measurements.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	parid	*number(10,0)*	Predicted arrival identifier	N
I	orid	*number(10,0)*	Origin identifier	Y
I	evid	*number(10,0)*	Event identifier	Y
	sta	*varchar2(6)*	Station code	Y
	time	*float(53)*	Epoch time	Y
	azimuth	*float(24)*	Azimuth	Y
	slow	*float(24)*	Predicted slowness for an arrival (s/deg)	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	vmodel	*varchar2(15)*	Velocity model	Y
I	lddate	*date*	Load date	Y

Primary keys:	PARRIVAL_PK(parid)
Indexes:	PARRORIDX(orid), PARREVIDX(evid), PARRIVALX(parid), PARRIVAL_LDDATEX(lddate)

3.1.90. PARTICIPATION

Owners:	STATIC
Category:	Reference
Description:	The participation table contains station participation information for performance reporting.

Pk/Fk/I	Column	Storage type	Description	Null?
	net	*varchar2(8)*	Network identification string	Y
	sta	*varchar2(6)*	Station code	Y
	begin_date	*number(8,0)*	Date participation began	Y
	end_date	*number(8,0)*	Date participation ended	Y
	lddate	*date*	Load date	Y

3.1.91. PHASE_DESCRIPTION

Owners:	STATIC
Category:	Interactive Analysis
Description:	Distance and depth information for phases used in Interactive SHI analysis

Pk/Fk/I	Column	Storage type	Description	Null?
	phase	*varchar2(8)*	Phase type	N
	mindelta	*float(24)*	Minimum distance (degrees)	N
	maxdelta	*float(24)*	Maximum allowable distance (degrees)	N
	mindepth	*float(24)*	Minimum allowable depth (km)	N
	maxdepth	*float(24)*	Maximum allowable depth (km)	N
	phase_type	*varchar2(24)*	Phase type	N
	prop_mode	*varchar2(1)*	Propagation mode (one of P,S,H,I,V or N)	N
	is_selected	*varchar2(1)*	Flag indicating if the phase can be selected by the analyst	N
	is_unique	*varchar2(1)*	Flag indicating whether or not the phase name is unique	N
	is_timeavail	*varchar2(1)*	Flag indicating whether or not travel time information is available for this phase	N

Pk/Fk/I	Column	Storage type	Description	Null?
	is_depth_phase	*varchar2(1)*	Flag indicating whether or not the phase is a depth phase	N
	is_depth_sensitive	*varchar2(1)*	Flag indicating whether or not the phase is depth sensitive	N
	is_coda	*varchar2(1)*	Flag indicating whether or not the phase is a coda phase	N
	lddate	*date*	Load date	N

3.1.92. PHASE_WEIGHT_EVENT_DEFINE

Owners:	STATIC
Category:	Interactive Analysis
Description:	Time, azimuth and slowness weights used in the Event Definition Criteria

Pk/Fk/I	Column	Storage type	Description	Null?
	phase_type	*varchar2(24)*	Phase type	N
	obs_type	*varchar2(24)*	Observation type	N
	time_weight	*float(24)*	Weight given to defining time for this phase	N
	az_weight	*float(24)*	Weight given to defining azimuth for this phase type.	N
	slow_weight	*float(24)*	Weight given to defining slowness for this phase	N
	num_defining	*number(8,0)*	Number of defining phases	N
	lddate	*date*	Load date	N

3.1.93. PMCC_FEATURES

Owners:	IDCX
Category:	Automatic Processing
Description:	Features of infrasonic arrivals, populated by DFX-PMCC

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
I	arid	*number(10,0)*	Arrival identifier	N
	initial_time	*float(53)*	Initial PMCC detection time (epochal)	Y
	duration	*float(24)*	Duration in seconds	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	consistency	*float(24)*	Consistency value	Y
	correlation	*float(24)*	Correlation coefficient	Y
	famsize	*number(8,0)*	PMCC family size	Y
	minfreq	*float(24)*	Minimum frequency (Hz)	Y
	maxfreq	*float(24)*	Maximum frequency (Hz)	Y
	cfreq	*float(24)*	Central frequency (Hz)	Y
	sigmafreq	*float(24)*	Standard deviation of frequency values	Y
	rmsamp	*float(24)*	Root mean square amplitude	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Indexes:	PMCC_FEAT_ARIX(arid)

3.1.94. PROBLASTID (VIEW)

Owners:	IDCX
Category:	System Monitoring
Description:	View of the LASTID table, used by System Monitoring software (Xlogger)

Pk/Fk/I	Column	Storage type	Description	Null?
	keyname	*varchar2(15)*	Identifier name (arid, orid, and so on)	N
	keyvalue	*number(10,0)*	Last value used for the identifier specified in the keyname column	N
	lddate	*date*	Load date	Y

SQL Body:

```
  CREATE OR REPLACE FORCE VIEW PROBLASTID (KEYNAME, KEYVALUE, LDDATE)
AS
  SELECT keyname, keyvalue, lddate
       FROM lastid
       where keyname in ( 'prid', 'plid', 'tmp$object' );
```

3.1.95. PROBLEM

Owners:	IDCX
Category:	System Monitoring
Description:	The problem table contains information related to problems with stations, communications, software, and hardware.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prid	*number(10,0)*	Problem identifier	N
	procclass	*varchar2(17)*	Xlogger problem category	Y
	procname	*varchar2(17)*	Xlogger problem name	Y
	time	*number(17,5)*	Epoch time of start of problem	Y
	endtime	*number(17,5)*	Epoch time of end of problem	Y
	status	*varchar2(33)*	Status of the problem	Y
	class	*varchar2(33)*	Class of problem	Y
	descrip	*varchar2(129)*	One line description of problem	Y
	login	*varchar2(33)*	Login name of originator	Y
	lddate	*date*	Load date	Y

Primary keys:	PROBLEM_PK(prid)
Indexes:	PROBLEM_PK(prid)

3.1.96. PROBLEMLOG

Owners:	IDCX
Category:	System Monitoring
Description:	The problemlog table contains individual problem log entries relating to problems in the database table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	plid	*number(10,0)*	Problem log identifier	N
	prid	*number(10,0)*	Problem identifier	Y
	time	*number(17,5)*	Time of log entry	Y
	dir	*varchar2(129)*	Absolute path to the data file	Y
	dfile	*varchar2(65)*	Filename of log file	Y
	login	*varchar2(33)*	Login name of originator	Y
	lddate	*date*	Load date	Y

Primary keys:	PROBLEMLOG_PK(plid)
Indexes:	PROBLEMLOG_PK(plid)

3.1.97. PROBLEMMAIL

Owners:	IDCX
Category:	System Monitoring
Description:	The problemmail table contains instructions for distributing problem messages to subscribers.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	procclass	*varchar2(17)*	Xlogger problem category	N
PI	login	*varchar2(33)*	Login name of originator	N
	lddate	*date*	Load date	Y

Primary keys:	PROBLEMMAIL_PK(procclass, login)
Indexes:	PROBLEMMAIL_PK(procclass, login)

3.1.98. PRODTRACK

Owners:	IDCX
Category:	Data Services
Description:	The prodtrack table queues and links data and subscription products. The dataid column links the product delivery to the data encapsulated in the dataready table, and the msgid column links the product to the outgoing message, as referenced in the msgdisc table. Thus, the prodtrack table allows for subscription tracking from the data to the product.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(10,0)*	Product identifier	N
	delivid	*number(10,0)*	Delivery identifier	Y
PI	dataid	*number(10,0)*	Data ready identifier	N
PI	msgid	*number(10,0)*	Message identifier	N
I	status	*varchar2(12)*	Status of the product	Y
I	lddate	*date*	Load date	Y

Primary keys:	PRODTRACK_PK(prodid, dataid, msgid)
Indexes:	INMSGIDX(msgid), INSTATUSX(status), PRODTRACK_PK(prodid, dataid, msgid), PRODTRACK_LDDATEX(lddate), INPRODIDX(prodid)

3.1.99. PRODUCTCRITERIA

Owners:	IDCX
Category:	Data Services
Description:	The productcriteria table contains subscription information about the type of product and when and how often to distribute the data. Each unique product has one record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(8,0)*	Product identifier	N
	prodname	*varchar2(24)*	Product name (if a standard product)	Y
	delivid	*number(8,0)*	Last delivery for this product	Y
	cycle_size	*number(8,0)*	Product size to be reached before release (0 for no limit)	Y
	cycle_time	*number(4,0)*	Time interval between releases (0 for immediate)	Y
	hour_to_send	*number(2,0)*	Hour to send product	Y
	dow_to_send	*number(2,0)*	Day of week to send subscription	Y
	dom_to_send	*number(2,0)*	Day of month to send subscription	Y
	prodtype	*varchar2(32)*	Product type (origin,	Y
	prodsubtype	*varchar2(12)*	Product sub-type	Y
	prodfmt	*varchar2(6)*	Product format	Y
	supressempty	*char(2)*	Flag indicating whether or not to suppress sending of empty products	Y
	timelastsend	*float(54)*	Time at which product was last sent (epochal)	Y
	timenextsend	*float(54)*	Time at which product will next be sent (epochal)	Y
	lddate	*date*	Load date	Y

Primary keys:	PRODUCTCRITERIA_PK(prodid)

3.1.100. PRODUCTTYPEEVSC

Owners:	IDCX
Category:	Data Services
Description:	The producttypeevsc table contains the input parameters that define the event-screening criteria for the standard case and national subscriptions. It is used in conjunction with the producttypeorigin table to specify the set of user input criteria. There is one record for each subscription (prodid).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(8,0)*	Product identifier	N
	grpname	*varchar2(24)*	Subscription group name	Y
	regname	*varchar2(24)*	Region name	Y
	min_ndef	*number(8,0)*	Minimum number of defining phases	Y
	min_mb	*float(24)*	Minimum mb for screening	Y
	depth_conf	*float(24)*	Depth screening confidence	Y
	depth_thresh	*float(24)*	Depth screening threshold	Y
	depth_kvalue	*float(24)*	Depth uncertainty k-value	Y
	min_ndp_pp	*number(8,0)*	Minimum required number of pP depth phases	Y
	min_ndp_sp	*number(8,0)*	Minimum required number of sP depth phases	Y
	min_moveout_pp	*float(24)*	Minimum moveout of pP-P travel time differences	Y
	min_moveout_sp	*float(24)*	Minimum moveout of sP-P travel time differences	Y
	min_dp_snr_pp	*float(24)*	Minimum pP depth phase snr	Y
	min_dp_snr_sp	*float(24)*	Minimum sP depth phase snr	Y
	mbms_conf	*float(24)*	Mb minus Ms screening confidence	Y
	mbms_thresh	*float(24)*	Mb minus Ms screening threshold	Y
	mbms_slope	*float(24)*	Slope term for mb minus Ms relation	Y
	magpref_mb	*varchar2(6)*	Mb magnitude type used for screening.	Y
	magpref_ms	*varchar2(6)*	Ms magnitude type used for screening.	Y
	mb_err	*float(24)*	Single-station mb uncertainty	Y
	ms_err	*float(24)*	Single-station Ms uncertainty	Y
	min_nsta_ms	*number(8,0)*	Minimum number of stations for ms	Y
	loc_conf	*float(24)*	Location error ellipse confidence	Y
	hydro_te_thresh	*float(24)*	Hydroacoustic total energy threshold	Y
	hydro_cp_thresh	*float(24)*	Hydroacoustic cepstral peak threshold	Y
	min_wdepth_thresh	*float(24)*	Minimum water depth threshold	Y
	reg_conf	*float(24)*	Regional screening confidence	Y
	lddate	*date*	Load date	Y

Primary keys:	SYS_C0010175(prodid)

3.1.101. PRODUCTTYPEORIGIN

Owners:	IDCX
Category:	Data Services
Description:	The producttypeorigin table contains the details of origin subscriptions. It extends the productcriteria table that is generic to all subscriptions. Each origin-based product has one record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(8,0)*	Product identifier	N
	minlat	*float(24)*	Minimum latitude of event	Y
	maxlat	*float(24)*	Maximum latitude of event	Y
	minlon	*float(24)*	Minimum longitude of event	Y
	maxlon	*float(24)*	Maximum longitude of event	Y
	mindepth	*float(24)*	Minimum depth value for a product constraint (km).	Y
	maxdepth	*float(24)*	Maximum allowable depth (km)	Y
	minmag	*float(24)*	Minimum magnitude	Y
	maxmag	*float(24)*	Maximum magnitude	Y
	magtype	*varchar2(4)*	Magnitude type, for example mb, Ms, ML	Y
	minmb_ms	*float(24)*	Minimum value of mb minus Ms	Y
	maxmb_ms	*float(24)*	Maximum value of mb minus Ms	Y
	mindep_err	*float(24)*	Minimum value of depth minus error	Y
	maxdep_err	*float(24)*	Maximum value of depth minus error	Y
	minesd	*float(24)*	Minimum event-station distance	Y
	maxesd	*float(24)*	Maximum event-station distance	Y

Primary keys:	PRODUCTTYPEORIGIN_PK(prodid)

3.1.102. PRODUCTTYPESTA

Owners:	IDCX
Category:	Data Services
Description:	The producttypesta table contains the criteria used for defining subscription products with constraints that are based on the station. If a user requests a subscription for multiple stations, the table will have one productcriteria row, but multiple producttypesta rows (one for each station); all of the producttypesta rows will have a common value of prodid.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	prodid	*number(8,0)*	Product identifier	N
	minlat	*float(24)*	Minimum station latitude	Y
	maxlat	*float(24)*	Maximum station latitude	Y
	minlon	*float(24)*	Minimum station longitude	Y
	maxlon	*float(24)*	Maximum station longitude	Y
PI	sta	*varchar2(6)*	Station code	N
PI	chan	*varchar2(8)*	Channel name	N

Primary keys:	PRODUCTTYPESTA_PK(prodid, sta, chan)
Indexes:	PRODUCTTYPESTA_PK(prodid, sta, chan)

3.1.103. QCSTATS

Owners:	IDCX
Category:	System Monitoring
Description:	The qcstats table contains waveform data quality statistics.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	qcstatsid	*number(10,0)*	Data quality statistics identifier	N
I	sta	*varchar2(6)*	Station code	N
I	chan	*varchar2(8)*	Channel name	N
I	time	*float(53)*	Interval start time	N
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	endtime	*float(53)*	Interval end time	Y
	dettime	*float(53)*	Detection interval start time	Y
	detendtime	*float(53)*	Detection interval end time	Y
	missing	*float(53)*	Amount of missing data (seconds)	Y
	dropped	*number(8,0)*	Flag indicating if interval was dropped	Y
	nseg	*number(8,0)*	Number of masked segments	Y
	masked	*float(53)*	Amount of data in masked segments	Y
	pointspike	*float(53)*	Amount of data in masked due to point-spikes	Y
	spike	*float(53)*	Amount of data in masked due to spikes	Y
	nconstseg	*number(8,0)*	Number of constant valued segments	Y
	const	*float(53)*	Amount of data masked due to constant valued segments	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	avgconstval	*float(53)*	Average value in constant segments	Y
	stdconstval	*float(53)*	Standard deviation of constant values	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
I	lddate	*date*	Load date	Y

Primary keys:	QCSTATS_PK(qcstatsid)
Indexes:	QCSTATSIDX(qcstatsid), QCSTATS_ENDSTCHNX(endtime, sta, chan), QCSTATS_LDDATEX(lddate), QCSTATS_TIMEX(time)

3.1.104. QUARANTINEWFDISC

Owners:	IDCX
Category:	Automatic Processing
Description:	The QUARANTINEWFDISC has a structure identical to the WFDISC table, but contains pointers to data with quality-related issues that prevent it being merged into the WFDISC table for use by IDC processing.

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
I	chan	*varchar2(8)*	Channel name	N
I	time	*float(53)*	Start time of the record (epochal)	N
I	wfid	*number(10,0)*	Unique waveform identifier (integer)	N
	chanid	*number(8,0)*	Channel recording identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	endtime	*float(53)*	End time of the record (epochal)	Y
	nsamp	*number(8,0)*	Number of samples in the waveform segment	Y
	samprate	*float(24)*	Sample rate for this record (samples per second)	Y
	calib	*float(24)*	Nominal calibration	Y
	calper	*float(24)*	Calibration period (seconds)	Y
	instype	*varchar2(6)*	Instrument type (e.g. CMG3ES, Akashi, HMP45A)	Y
	segtype	*varchar2(1)*	Waveform segment type indicating if the waveform is original, segmented, virtual or duplicate	Y
	datatype	*varchar2(2)*	Data type (e.g. s3, s4, t4)	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			clipped	
I	dir	*varchar2(64)*	Absolute path to the data file	Y
I	dfile	*varchar2(32)*	Waveform data file name	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

3.1.105. REGCOEF

Owners:	STATIC
Category:	Fundamental
Description:	The regcoef table contains linear coefficients for regional processing.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	rcoefid	*varchar2(20)*	Linear coefficient set identifier	N
PI	rcoeftype	*varchar2(10)*	Linear coefficient value identifier	N
	rcoefvalue	*float(24)*	Linear coefficient value	Y
	ondate	*number(8,0)*	First julian date this row is valid	Y
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	lddate	*date*	Load date	Y

Primary keys:	SYS_C003827(rcoefid, rcoeftype)
Indexes:	SYS_C003827(rcoefid, rcoeftype)

3.1.106. REMARK

Owners:	SEL1,SEL2
Category:	Database and Utility
Description:	The remark table contains comments. This table may be used to store free-form comments that embellish records of other tables. The commid field in many tables refers to a record in the remark table. If commid is null (-1) in a record of any other table, no comments are stored for that record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	commid	*number(10,0)*	Comment identifier	N
PI	lineno	*number(8,0)*	Comment line number	N

Pk/Fk/I	Column	Storage type	Description	Null?
	remark	*varchar2(80)*	Free-format comment	Y
	lddate	*date*	Load date	Y

Primary keys:	REMARK_PK(commid, lineno)
Indexes:	REMARK_PK(commid, lineno)

3.1.107. REMARK

Owners:	LEB
Category:	Database and Utility
Description:	The remark table contains comments. This table may be used to store free-form comments that embellish records of other tables. The commid field in many tables refers to a record in the remark table. If commid is null (-1) in a record of any other table, no comments are stored for that record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	commid	*number(10,0)*	Comment identifier	N
PI	lineno	*number(8,0)*	Comment line number	N
	remark	*varchar2(80)*	Free-format comment	Y
I	lddate	*date*	Load date	Y

Primary keys:	REMARK_PK(commid, lineno)
Indexes:	REMARK_LDDATEX(lddate), REMARKX(commid, lineno)

3.1.108. REMARK

Owners:	IDCX,STATIC
Category:	Database and Utility
Description:	The remark table contains comments. This table may be used to store free-form comments that embellish records of other tables. The commid field in many tables refers to a record in the remark table. If commid is null (-1) in a record of any other table, no comments are stored for that record.

Pk/Fk/I	Column	Storage type	Description	Null?
P	commid	*number(10,0)*	Comment identifier	N
P	lineno	*number(8,0)*	Comment line number	N
	remark	*varchar2(80)*	Free-format comment	Y
	lddate	*date*	Load date	Y

Primary keys:	REMARK_PK(commid, lineno)

3.1.109. REMARK

Owners:	REB,SEL3
Category:	Database and Utility
Description:	The remark table contains comments. This table may be used to store free-form comments that embellish records of other tables. The commid field in many tables refers to a record in the remark table. If commid is null (-1) in a record of any other table, no comments are stored for that record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	commid	*number(10,0)*	Comment identifier	N
PI	lineno	*number(8,0)*	Comment line number	N
	remark	*varchar2(80)*	Free-format comment	Y
	lddate	*date*	Load date	Y

Primary keys:	REMARK_PK(commid, lineno)
Indexes:	REMARKX(commid, lineno)

3.1.110. REQUEST

Owners:	IDCX
Category:	Data Services
Description:	The request table defines segments of auxiliary waveform data to be acquired. The start_time, end_time, sta and chan fields define a single unit of data. Data import programs must succeed in acquiring all the data for a time interval before changing the state to indicate successful retrieval, otherwise the state will be updated to indicate whether data were partially retrieved or no data was retrieved.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	reqid	*number(10,0)*	Request identifier	N
	sta	*varchar2(6)*	Station code	N
	chan	*varchar2(8)*	Channel name	N
	array	*varchar2(8)*	Array code	Y
	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	start_time	*float(53)*	Starting time of requested waveform data	N

Pk/Fk/I	Column	Storage type	Description	Null?
I	end_time	*float(53)*	Ending time of requested waveform data	N
	class	*varchar2(16)*	Type of request	Y
I	state	*varchar2(16)*	Current processing state	Y
	statecount	*number(8,0)*	Number of failed attempts (when state = failed)	Y
	complete	*number(8,0)*	Percentage of data acquired	Y
	requestor	*varchar2(15)*	Original author of record	Y
I	modtime	*float(53)*	Time of last state change (epoch time)	Y
	modauthor	*varchar2(15)*	Author of last state change	Y
I	lddate	*date*	Load date	Y

Primary keys:	REQUEST_PK(reqid)
Indexes:	REQMODX(modtime), REQSTATEX(state), REQUESTX(reqid), REQUEST_LDDATEX(lddate), REQENDX(end_time)

3.1.111. REVAUDIT

Owners:	LEB
Category:	Interactive Analysis
Description:	Provides an audit trail of actions taken by SHI Lead Analysts running rebrevise during the course of LEB review.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	revid	*number(10,0)*	Revision identifier	N
	revfunction	*varchar2(32)*	Name of the revision function used	N
	auth	*varchar2(15)*	Name of the Analyst making the revision	N
I	revtagid1	*number(10,0)*	Revtagname1 value; the value of the foreign key identified in revtagname1	N
I	revtagname1	*varchar2(8)*	Revtagname1 type; the name of the foreign key whose value is revtagid1	N
	revtagid2	*number(10,0)*	Revtagname2 value; the value of the foreign key identified in revtagname2	Y
	revtagname2	*varchar2(8)*	Revtagname2 type; the name of the foreign key whose value is revtagid2	Y
	revstate	*varchar2(16)*	State of the revision	Y
	lddate	*date*	Load date	Y

Primary keys:	REVAUDIT_PK(revid)
Indexes:	REVTAGNDX(revtagid1, revtagname1), REVIDNDX(revid)

3.1.112. RMS_LASTID (VIEW)

Owners:	IDCX
Category:	Automatic Processing
Description:	View of the LASTID table, used by radionuclide processing software

Pk/Fk/I	Column	Storage type	Description	Null?
	keyname	*varchar2(15)*	Identifier name (arid, orid, and so on)	N
	keyvalue	*number(10,0)*	Last value used for the identifier specified in the keyname column	N
	lddate	*date*	Load date	Y

SQL Body:

```
  CREATE OR REPLACE FORCE VIEW RMS_LASTID (KEYNAME, KEYVALUE, LDDATE)
AS
  SELECT keyname, keyvalue, lddate
       FROM lastid
       where keyname = 'fpid';
```

3.1.113. SEISGRID

Owners:	STATIC
Category:	Automatic Processing
Description:	The seisgrid table contains a natural seismicity grid, which includes the average number of events per year with magnitude greater than the threshold in this table for each latitude-longitude grid point (the grid points are defined in the seisindex table). The seisgrid table is used by the Anomalous Event Qualifier (AEQ) application to help identify anomalous events.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	grdname	*varchar2(6)*	Grid name	N
PI	icell	*number(8,0)*	Grid cell index	N
	magth	*float(24)*	Magnitude threshold	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	nevyr	*float(24)*	Average number of events/year	Y
	lddate	*date*	Load date	Y

Primary keys:	SEISGRID_PK(grdname, icell)
Indexes:	SEISGRID_PK(grdname, icell)

3.1.114. SEISINDEX

Owners:	STATIC
Category:	Automatic Processing
Description:	The seisindex table contains the geographic grids of natural seismicity data in the seisgrid table. The dseisindex table contains the geographic grids of seismicity data in the dseisgrid table. The seisindex table is used by the Anomalous Event Qualifier (AEQ) application to help identify anomalous events.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	grdname	*varchar2(6)*	Grid name	N
	lat1	*float(24)*	Initial latitude	Y
	lon1	*float(24)*	Initial longitude	Y
	dlat	*float(24)*	Latitude increment	Y
	dlon	*float(24)*	Longitude increment	Y
	nlat	*number(8,0)*	Number of latitudes	Y
	nlon	*number(8,0)*	Number of longitudes	Y
	orderby	*varchar2(6)*	Order by (either latitude or longitude)	Y
	lddate	*date*	Load date	Y

Primary keys:	SEISINDEX_PK(grdname)
Indexes:	SEISINDEX_PK(grdname)

3.1.115. SEMAPHORE

Owners:	IDCX
Category:	Data Services
Description:	Table used by the Message System to enforce locking of logfiles to prevent race conditions while rotating logfiles.

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
	pid	*number(10,0)*	Process id	Y
	lddate	*date*	Load date	Y

3.1.116. SENSOR

Owners:	STATIC
Category:	Core, Reference
Description:	The sensor table contains calibration information for specific sensor channels. This table provides a record of updates in the calibration factor or clock error of each instrument and links a sta/chan/time to a complete instrument response in the table instrument. Waveform data are converted into physical units through multiplication by the calib field located in wfdisc. The correct value of calib may not be accurately known when the wfdisc record is entered into the database. The sensor table provides the mechanism (calratio and calper) to "update" calib, without requiring possibly hundreds of wfdisc records to be updated. Through the foreign key inid, this table is linked to instrument, which has fields pointing to flat files holding detailed calibration information in a variety of formats (see instrument).

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
I	chan	*varchar2(8)*	Channel name	N
	time	*float(53)*	Epoch time of start of recording period	N
	endtime	*float(53)*	Epoch time of end of recording period	N
	inid	*number(8,0)*	Instrument identifier	N
	chanid	*number(8,0)*	Channel recording identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	calratio	*float(24)*	Calibration	Y
	calper	*float(24)*	Calibration period (seconds)	Y
	tshift	*float(24)*	Correction of data processing time	Y
	instant	*varchar2(1)*	(y, n) discrete/continuing snapshot	N
	lddate	*date*	Load date	Y

Indexes:	SENSSTAX(sta, chan)

3.1.117. SITE

Owners:	STATIC
Category:	Core, Reference
Description:	The site table contains station location information. Site names and describes a point on the earth where measurements are made (for example, the location of an instrument or array of instruments). It contains information that normally changes infrequently, such as location. In addition, site contains fields that describe the offset of a station relative to an array reference location. Global data integrity implies that the sta/ondate in site be consistent with the sta/chan/ondate in sitechan.

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
	ondate	*number(8,0)*	First julian date this row is valid	N
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	lat	*float(24)*	Geographic latitude. Locations north of the equator have positive latitudes.	Y
	lon	*float(24)*	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.	Y
	elev	*float(24)*	Elevation	Y
	staname	*varchar2(50)*	Station description	Y
	statype	*varchar2(4)*	Station type: single station, array	Y
	refsta	*varchar2(6)*	Reference station for array members	Y
	dnorth	*float(24)*	Offset from array reference (km)	Y
	deast	*float(24)*	Offset from array reference (km)	Y
	lddate	*date*	Load date	Y

Indexes:	SITESTAX(sta)

3.1.118. SITEAUX

Owners:	STATIC
Category:	Reference
Description:	The siteaux table contains additional site-dependent parameters that are not included in the site table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	sta	*varchar2(6)*	Station code	N
PI	chan	*varchar2(8)*	Channel name	N
PI	time	*float(53)*	Epoch time	N
	nois	*float(24)*	Noise amplitude	Y
	noissd	*float(24)*	Standard deviation of log noise	Y
	amcor	*float(24)*	Amplitude correction	Y
	amcorsd	*float(24)*	Correction standard deviation	Y
	snthrsh	*float(24)*	Signal/noise detection threshold	Y
	rely	*float(24)*	Station reliability	Y
	ptmcor	*float(24)*	P arrival time correction	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	stmcor	*float(24)*	S arrival time correction	Y
	staper	*float(24)*	Period for measurements	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	SITEAUX_PK(sta, chan, time)
Indexes:	SITEAUX_PK(sta, chan, time)

3.1.119. SITECHAN

Owners:	STATIC
Category:	Core, Reference
Description:	The sitechan table contains station-channel information. This table describes the orientation of a recording channel at the site referenced by sta. It provides information about the various channels that are available at a station and maintains a record of the physical channel configuration at a site.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	sta	*varchar2(6)*	Station code	N
PI	chan	*varchar2(8)*	Channel identifier	N
PI	ondate	*number(8,0)*	First julian date this row is valid	N
I	chanid	*number(8,0)*	Channel recording identifier	Y
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	ctype	*varchar2(4)*	Channel type	Y
	edepth	*float(24)*	Emplacement depth	Y
	hang	*float(24)*	Horizontal angle	Y
	vang	*float(24)*	Vertical angle	Y
	descrip	*varchar2(50)*	Channel description	Y
	lddate	*date*	Load date	Y

Primary keys:	SITECHAN_PK(sta, chan, ondate)
Indexes:	SITECHANX(chanid), SITECHAN_PK(sta, chan, ondate), STCSTAX(sta, chan)

3.1.120. SITEPOLL

Owners:	STATIC
Category:	Data Services
Description:	The sitepoll table contains the station and channel names of auxiliary seismic stations that are polled periodically for system monitoring purposes.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	sta	*varchar2(6)*	Station code	N
PI	net	*varchar2(6)*	Network identification string	N
PI	chan	*varchar2(6)*	Channel name	N
	lddate	*date*	Load date	Y

Primary keys:	SITEPOLL_PK(sta, net, chan)
Indexes:	SITEPOLL_PK(sta, net, chan)

3.1.121. SITE_ADDRESS

Owners:	STATIC
Category:	Reference
Description:	The site_address table contains address information not included in the site table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	sta	*varchar2(6)*	Station code	N
	name	*varchar2(20)*	Expanded station name	Y
	locality	*varchar2(40)*	Locality of station	Y
	stat_prov	*varchar2(40)*	State or province	Y
	country	*varchar2(40)*	Country name	Y
	lddate	*date*	Load date	Y

Primary keys:	SITE_ADDRESS_PK(sta)
Indexes:	SITE_ADDRESS_PK(sta)

3.1.122. SPLP

Owners:	REB
Category:	Fundamental
Description:	The splp table contains event characterization parameters for short-period/long-period energy ratios. The ratios are computed using the DFX application.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
PI	sta	*varchar2(6)*	Station code	N
	rectype	*varchar2(8)*	Recipe type	N
	ratio	*float(24)*	Ratio of short-period to long-period energy	Y
I	lddate	*date*	Load date	Y

Primary keys:	SPLP_PK(orid, sta)
Indexes:	SPLP_LDDATEX(lddate), SPLP_PK(orid, sta), SPLPORIDX(orid)

3.1.123. SPVAR

Owners:	REB
Category:	Fundamental
Description:	The spvar table contains the variance of the detrended log spectrum between fmin and fmax for an arrival identified by arid. The frequency bandwidth is based on a signal-to-noise ratio criterion. Each phase associated with an event has a spvar record.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
	fsid	*number(10,0)*	Fourier spectrum identifier	N
	acoef	*float(24)*	"a" coefficient for nonlinear trend	Y
	bcoef	*float(24)*	"b" coefficient for nonlinear trend	Y
	ccoef	*float(24)*	"c" coefficient for nonlinear trend	Y
PI	fmin	*float(24)*	Minimum frequency	N
PI	fmax	*float(24)*	Maximum frequency	N
	svar	*float(24)*	Variance of detrended log spectrum	Y
I	lddate	*date*	Load date	Y

Primary keys:	SPVAR_PK(arid, fmin, fmax)
Indexes:	SPVAR_LDDATEX(lddate), SPVAR_PK(arid, fmin, fmax)

3.1.124. SREGION

Owners:	STATIC
Category:	Core, Reference
Description:	The sregion table contains seismic region numbers and their equivalent descriptions (see [Fli74]).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	srn	*number(8,0)*	Seismic region number, as given in [Fli74]	N
	srname	*varchar2(40)*	Seismic region name	Y
	lddate	*date*	Load date	Y

Primary keys:	SREGION_PK(srn)
Indexes:	SREGION_PK(srn)

3.1.125. STAMAG

Owners:	SEL1
Category:	Core, Fundamental
Description:	The stamag table contains station magnitude estimates based upon measurements made on specific seismic phases. Values in stamag are used to calculate network magnitudes stored in netmag.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	magid	*number(10,0)*	Station magnitude identifier	N
PI	ampid	*number(10,0)*	Amplitude identifier	N
PI	sta	*varchar2(6)*	Station code	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	magnitude	*float(24)*	Magnitude	Y
	uncertainty	*float(24)*	Magnitude uncertainty	Y
	magres	*float(24)*	Magnitude residual	Y
	magdef	*varchar2(1)*	"d" or "n" flag indicating if magnitude is defining or nondefining	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	mmodel	*varchar2(15)*	Magnitude model	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	STAMAG_PK(magid, ampid, sta)
Indexes:	STAMAG_LDDATEX(lddate), SMARIDX(arid), SMORIDX(orid), SMMAGIDX(magid, sta)

3.1.126. STAMAG

Owners:	SEL2,SEL3
Category:	Core, Fundamental
Description:	The stamag table contains station magnitude estimates based upon measurements made on specific seismic phases. Values in stamag are used to calculate network magnitudes stored in netmag.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	magid	*number(10,0)*	Station magnitude identifier	N
PI	ampid	*number(10,0)*	Amplitude identifier	N
PI	sta	*varchar2(6)*	Station code	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	magnitude	*float(24)*	Magnitude	Y
	uncertainty	*float(24)*	Magnitude uncertainty	Y
	magres	*float(24)*	Magnitude residual	Y
	magdef	*varchar2(1)*	"d" or "n" flag indicating if magnitude is defining or nondefining	Y
	mmodel	*varchar2(15)*	Magnitude model	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	STAMAG_PK(magid, ampid, sta)
Indexes:	STAMAG_LDDATEX(lddate), SMARIDX(arid), SMORIDX(orid), SMMAGIDX(magid, sta), STAMAG_PK(magid, ampid, sta)

3.1.127. STAMAG

Owners:	LEB
Category:	Core, Fundamental
Description:	The stamag table contains station magnitude estimates based upon measurements made on specific seismic phases. Values in stamag are used to calculate network magnitudes stored in netmag.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	magid	*number(10,0)*	Station magnitude identifier	N
PI	ampid	*number(10,0)*	Amplitude identifier	N
PI	sta	*varchar2(6)*	Station code	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	magnitude	*float(24)*	Magnitude	Y
	uncertainty	*float(24)*	Magnitude uncertainty	Y
	magres	*float(24)*	Magnitude residual	Y
	magdef	*varchar2(1)*	"d" or "n" flag indicating if magnitude is defining or nondefining	Y
	mmodel	*varchar2(15)*	Magnitude model	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	STAMAG_PK(magid, ampid, sta)
Indexes:	STAMAG_LDDATEX(lddate), SMAMPIDX(ampid), SMARIDX(arid), SMORIDX(orid), SMMAGIDX(magid, sta)

3.1.128. STAMAG

Owners:	REB
Category:	Core, Fundamental
Description:	The stamag table contains station magnitude estimates based upon measurements made on specific seismic phases. Values in stamag are used to calculate network magnitudes stored in netmag.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	magid	*number(10,0)*	Station magnitude identifier	N
PI	ampid	*number(10,0)*	Amplitude identifier	N
PI	sta	*varchar2(6)*	Station code	N
I	arid	*number(10,0)*	Arrival identifier	Y
I	orid	*number(10,0)*	Origin identifier	Y
	evid	*number(10,0)*	Event identifier	Y
	phase	*varchar2(8)*	Phase type	Y
	delta	*float(24)*	Source-receiver distance in degrees	Y
	magtype	*varchar2(6)*	Magnitude type, for example mb, Ms, ML	Y
	magnitude	*float(24)*	Magnitude	Y
	uncertainty	*float(24)*	Magnitude uncertainty	Y
	magres	*float(24)*	Magnitude residual	Y
	magdef	*varchar2(1)*	"d" or "n" flag indicating if magnitude is defining or nondefining	Y
	mmodel	*varchar2(15)*	Magnitude model	Y
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
	lddate	*date*	Load date	Y

Primary keys:	STAMAG_PK(magid, ampid, sta)
Indexes:	SMAMPIDX(ampid), SMARIDX(arid), SMMAGIDX(magid, sta), SMORIDX(orid)

3.1.129. STANET

Owners:	STATIC
Category:	Core, Reference
Description:	The stanet table groups array sites into an array "network." Its structure is identical to the affiliation table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	net	*varchar2(8)*	Network identification string	N
PI	sta	*varchar2(6)*	Station code	N
	lddate	*date*	Load date	Y

Primary keys:	STANET_PK(net, sta)
Indexes:	STANETSTAX(sta), STANETX(net, sta)

3.1.130. STASSOC

Owners:	IDCX
Category:	Core, Fundamental
Description:	The stassoc table contains summary information about groups of related arrivals. This table defines the group of phases seen at a single station from the same event.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	stassid	*number(10,0)*	Station association (stassoc) identifier.	N
	sta	*varchar2(6)*	Station code	Y
	etype	*varchar2(7)*	Event type	Y
	location	*varchar2(32)*	Apparent location description	Y
	dist	*float(24)*	Estimated distance	Y
	azimuth	*float(24)*	Estimated azimuth	Y
	lat	*float(24)*	Geographic latitude. Locations north of the equator have positive latitudes.	Y
	lon	*float(24)*	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.	Y
	depth	*float(24)*	Estimated depth (kilometers)	Y
I	time	*float(53)*	Estimated origin time	Y
	imb	*float(24)*	Estimated mb	Y
	ims	*float(24)*	Initial estimated Ms	Y
	iml	*float(24)*	Initial estimated ML	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	auth	*varchar2(15)*	Name of the application or user making the update	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	STASSOC_PK(stassid)
Indexes:	STASSOC_LDDATEX(lddate), STASSTIMEX(time), STASSSTASSX(stassid)

3.1.131. STA_RELY

Owners:	STATIC
Category:	Interactive Analysis
Description:	Table containing estimates for time, azimuth and slowness reliability at different primary seismic stations.

Pk/Fk/I	Column	Storage type	Description	Null?
	sta	*varchar2(6)*	Station code	N
	az_rely	*varchar2(1)*	Azimuth reliability	Y
	slow_rely	*varchar2(1)*	Slowness reliability	Y
	time_rely	*varchar2(1)*	Time reliability	Y
	lddate	*date*	Load date	N

3.1.132. SUBS

Owners:	IDCX
Category:	Data Services
Description:	The subs table is used by the Subscription Subsystem. It records what email address receives which products. In addition, it tracks the POC for the products.

Pk/Fk/I	Column	Storage type	Description	Null?
	userid	*number(8,0)*	User identifier	Y
	intid	*number(10,0)*	Internal identifier for message tracking	Y
	intidtype	*varchar2(16)*	Identifier type for the intid	Y
	subsid	*number(10,0)*	Subscription identifier	Y
	subsname	*varchar2(24)*	Subscription name	Y
	prodid	*number(10,0)*	Product identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	address	*varchar2(64)*	FTP and email address of destination	Y
	deliv_meth	*varchar2(6)*	Delivery method (email or ftp)	Y
	status	*varchar2(6)*	Status of this row	Y
	ondate	*date*	The date subscription is "on"	Y
	offdate	*date*	The date that the subscription is "off"	Y
	initialdate	*date*	Initial date of subscription	Y
	lddate	*date*	Load date	Y

3.1.133. SUBSUSER

Owners:	IDCX
Category:	Data Services
Description:	The subsuser table is used by the Subscription Subsystem to track authorized users of the system. A user is identified by the username and domain from the email header.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	userid	*number(8,0)*	User identifier	N
	username	*varchar2(24)*	UNIX login or user name component of email address	Y
	domain	*varchar2(48)*	Domain name from the incoming subscription message	Y
	status	*varchar2(24)*	Status of this user	Y
	pocid	*number(8,0)*	Point of contact identifier	Y
	priority	*number(2,0)*	User priority	Y
	lddate	*date*	Load date	Y

Primary keys:	SUBSUSER_PK(userid)
Indexes:	SUBSUSERX(userid)

3.1.134. THIRDMOM

Owners:	REB
Category:	Fundamental
Description:	The thirdmom table contains the third moment of frequency and the percentage of signal frequency amplitudes greater than the corresponding noise frequency amplitudes for an arrival identified by arid. The measurements are used for event screening.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	arid	*number(10,0)*	Arrival identifier	N
	sta	*varchar2(6)*	Station code	N
	rectype	*varchar2(8)*	Recipe type	N
	tmf	*float(24)*	Third moment of frequency	Y
	tmfpct	*float(24)*	Percentage of signal spectrum amplitudes greater than noise spectrum amplitudes	Y
	lddate	*date*	Load date	Y

Primary keys:	THIRDMOM_PK(arid)
Indexes:	THIRDMOM_PK(arid)

3.1.135. TIMEFREQ

Owners:	REB
Category:	Fundamental
Description:	The timefreq table contains the time-frequency measurements for event characterization.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	orid	*number(10,0)*	Origin identifier	N
PI	sta	*varchar2(6)*	Station code	N
	rectype	*varchar2(8)*	Recipe type	N
	zavpct	*float(24)*	Ratio of bad points to total (vertical)	Y
	navpct	*float(24)*	Ratio of bad points to total (north)	Y
	eavpct	*float(24)*	Ratio of bad points to total (east)	Y
	xavpct	*float(24)*	Ratio of bad points to total (cross-correlation)	Y
	zavcep	*float(24)*	Average 2-D cepstrum max (vertical)	Y
	navcep	*float(24)*	Average 2-D cepstrum max (north)	Y
	eavcep	*float(24)*	Average 2-D cepstrum max (east)	Y
	zavcor	*float(24)*	Average autocorrelation (vertical)	Y
	navcor	*float(24)*	Average autocorrelation (north)	Y
	eavcor	*float(24)*	Average autocorrelation (east)	Y
	xcor	*float(24)*	Zero cross-correlation	Y
	lddate	*date*	Load date	Y

Primary keys:	TIMEFREQ_PK(orid, sta)
Indexes:	TIMEFREQ_PK(orid, sta)

3.1.136. TIMESTAMP

Owners:	IDCX
Category:	Distributed Processing
Description:	The timestamp table is used for scheduling automatic processing of time-series data.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	procclass	*varchar2(16)*	Process class	N
PI	procname	*varchar2(16)*	Process name	N
	time	*float(53)*	Last epoch time	Y
	lddate	*date*	Load date	Y

Primary keys:	TIMESTAMP_PK(procclass, procname)
Indexes:	TIMESTAMP_PK(procclass, procname)

3.1.137. WAVEINTERVAL

Owners:	IDCX
Category:	Automatic Processing
Description:	Information pertaining to the availability of continuous data in time windows suitable for use in automatic processing.

Pk/Fk/I	Column	Storage type	Description	Null?
I	wintid	*number(10,0)*	Unique identifier (integer)	N
I	station	*varchar2(6)*	Station name	N
I	time	*float(53)*	Epochal start time of this interval	N
I	endtime	*float(53)*	The end time of this record (epochal)	Y
	percentdata	*float(24)*	The percentage of data received (for all channels).	Y
	percentchans	*float(24)*	Percentage of available channels for this interval	Y
	percentusable	*float(24)*	The percentage of data that can be usefully processed by subsequent applications.	Y
	percenttimely	*float(24)*	Percentage of data for all channels that was received within 5 minutes of real time.	Y
	status	*varchar2(6)*	Status of this row	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	mask	*varchar2(64)*	Bit mask indicating which channels sent data for this interval.	Y
	createdate	*date*	The date this row was first inserted	Y
I	lddate	*date*	Load date	Y

Indexes:	WAVEINTERVAL_STA_TIME_ENDTIMEX(station, time, endtime), WAVEINTERVAL_TIMEX(time), WAVEINTERVAL_LDDATEX(lddate), WAVEINTERVAL_WINTIDX(wintid)

3.1.138. WEIGHTS

Owners:	STATIC
Category:	Data Services
Description:	The weights table is used to store weighting information for calculating the weights of REB events. Only those events with sufficient weight are migrated from the LEB to the REB.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	phase	*varchar2(8)*	Phase type	N
PI	statype	*varchar2(4)*	Station type (ar or ss)	N
PI	net	*varchar2(8)*	Network identification string	N
	tweight	*float(24)*	Time weight	Y
	aweight	*float(24)*	Azimuth weight	Y
	sweight	*float(24)*	Slowness weight	Y
	ondate	*number(8,0)*	First julian date this row is valid	Y
	offdate	*number(8,0)*	Last Julian date this row is valid	Y
	lddate	*date*	Load date	Y

Primary keys:	SYS_C003850(phase, statype, net)
Indexes:	SYS_C003850(phase, statype, net)

3.1.139. WFDISC

Owners:	IDCX
Category:	Core
Description:	The wfdisc table contains a waveform header file and descriptive information. This table provides a pointer (or index) to waveforms stored on disk. The waveforms themselves are stored in ordinary disk files called waveform or ".w" (dotw) files as a sequence of sample values (usually in a binary representation, as defined in the datatype column).

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
I	chan	*varchar2(8)*	Channel name	N
I	time	*float(53)*	Start epochal time of the waveform segment	N
PI	wfid	*number(10,0)*	Unique waveform identifier (integer)	N
	chanid	*number(8,0)*	Channel recording identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
I	endtime	*float(53)*	End epochal time of the waveform segment	Y
	nsamp	*number(8,0)*	Number of samples in the waveform segment	Y
	samprate	*float(24)*	Sample rate for this record (samples per second)	Y
	calib	*float(24)*	Nominal calibration	Y
	calper	*float(24)*	Calibration period (seconds)	Y
	instype	*varchar2(6)*	Instrument type (e.g. CMG3ES, Akashi, HMP45A)	Y
	segtype	*varchar2(1)*	Waveform segment type indicating if the waveform is original, segmented, virtual or duplicate	Y
	datatype	*varchar2(2)*	Data type (e.g. s3, s4, t4)	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
I	dir	*varchar2(64)*	Absolute path to the data file	Y
I	dfile	*varchar2(32)*	Waveform data file name	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	WFDISC_PK(wfid)
Indexes:	WFENDTIMEX(endtime), WFSTACHANTIMEX(sta, chan, time), WFDISCX(wfid), WFSTAX(sta, time), WFLDDX(lddate), WFDIRX(dir, dfile), WFTIMEX(time)
Triggers:	WFDISC_ENDTIME

3.1.140. WFDISC

Owners:	SEGMENT
Category:	Core
Description:	The wfdisc table contains a waveform header file and descriptive information. This table provides a pointer (or index) to waveforms stored on disk. The waveforms themselves are stored in ordinary disk files called waveform or ".w" (dotw) files as a sequence of sample values (usually in a binary representation, as defined in the datatype column).

Pk/Fk/I	Column	Storage type	Description	Null?
I	sta	*varchar2(6)*	Station code	N
	chan	*varchar2(8)*	Channel name	N
I	time	*float(53)*	Start epochal time of the waveform segment	N
PI	wfid	*number(10,0)*	Unique waveform identifier (integer)	N
	chanid	*number(8,0)*	Channel recording identifier	Y
	jdate	*number(8,0)*	Julian date for this data (midnight to midnight)	Y
	endtime	*float(53)*	End epochal time of the waveform segment	Y
	nsamp	*number(8,0)*	Number of samples in the waveform segment	Y
	samprate	*float(24)*	Sample rate for this record (samples per second)	Y
	calib	*float(24)*	Nominal calibration	Y
	calper	*float(24)*	Calibration period (seconds)	Y
	instype	*varchar2(6)*	Instrument type (e.g. CMG3ES, Akashi, HMP45A)	Y
	segtype	*varchar2(1)*	Waveform segment type indicating if the waveform is original, segmented, virtual or duplicate	Y
	datatype	*varchar2(2)*	Data type (e.g. s3, s4, t4)	Y
	clip	*varchar2(1)*	Flag indicating whether or not the data are clipped	Y
I	dir	*varchar2(64)*	Absolute path to the data file	Y
I	dfile	*varchar2(32)*	Waveform data file name	Y
	foff	*number(10,0)*	Byte offset of data segment within file	Y
	commid	*number(10,0)*	Comment identifier	Y
I	lddate	*date*	Load date	Y

Primary keys:	WFDISC_PK(wfid)
Indexes:	WDSTAX(sta, time), WFDISC_LDDATEX(lddate), WDFILEX(dir, dfile), WDTIMEX(time), WDWFIDX(wfid)

3.1.141. WFTAG

Owners:	SEL1,SEL2
Category:	Core, Fundamental
Description:	The wftag table links various identifiers (for example, orid, arid, and stassid to wfid). Linkages can also be determined indirectly using sta, chan, and time. However, it is more efficient to use the wftag table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	tagname	*varchar2(8)*	Key (arid, orid, evid, and so on)	N
PI	tagid	*number(10,0)*	Tagname value	N
PI	wfid	*number(10,0)*	Waveform identifier	N
	lddate	*date*	Load date	Y

Primary keys:	WFTAG_PK(tagname, tagid, wfid)
Indexes:	WFTAG_PK(tagname, tagid, wfid)

3.1.142. WFTAG

Owners:	SEGMENT
Category:	Core, Fundamental
Description:	The wftag table links various identifiers (for example, orid, arid, and stassid to wfid). Linkages can also be determined indirectly using sta, chan, and time. However, it is more efficient to use the wftag table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	tagname	*varchar2(8)*	Key (arid, orid, evid, and so on)	N
PI	tagid	*number(10,0)*	Tagname value	N
PI	wfid	*number(10,0)*	Waveform identifier	N
	lddate	*date*	Load date	Y

Primary keys:	WFTAG_PK(tagname, tagid, wfid)
Indexes:	WFTWFIDX(wfid), WFTAG_PK(tagname, tagid, wfid), WFTTAGX(tagid)

3.1.143. WFTAG

Owners:	SEL3
Category:	Core, Fundamental
Description:	The wftag table links various identifiers (for example, orid, arid, and stassid to wfid). Linkages can also be determined indirectly using sta, chan, and time. However, it is more efficient to use the wftag table.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	tagname	*varchar2(8)*	Key (arid, orid, evid, and so on)	N
PI	tagid	*number(10,0)*	Tagname value	N
PI	wfid	*number(10,0)*	Waveform identifier	N
	lddate	*date*	Load date	Y

Primary keys:	WFTAG_PK(tagname, tagid, wfid)
Indexes:	WFTWFIDX(wfid), WFTAG_PK(tagname, tagid, wfid), WFTTAGIDX(tagid)

3.1.144. WFTAG

Owners:	IDCX
Category:	Core, Fundamental
Description:	The wftag table links various identifiers (for example, orid, arid, and stassid to wfid). Linkages can also be determined indirectly using sta, chan, and time. However, it is more efficient to use the wftag table.

Pk/Fk/I	Column	Storage type	Description	Null?
P	tagname	*varchar2(8)*	Key (arid, orid, evid, and so on)	N
PI	tagid	*number(10,0)*	Tagname value	N
PI	wfid	*number(10,0)*	Waveform identifier	N
	lddate	*date*	Load date	Y

Primary keys:	WFTAG_PK(tagname, tagid, wfid)
Indexes:	WFTWFIDX(wfid), WFTTAGIDX(tagid)

3.1.145. XTAG

Owners:	IDCX
Category:	Database and Utility
Description:	The xtag table links various identifiers (for example, orid, arid, stassid, and wfid to other identifiers). This table is a generalization of the wftag table, which is limited to linking exclusively to the wfid. The thisdb column describes the database account for the record specified by thisid and thisname; thatdb describes the database account for the record specified by thatid and thatname. When a parent/child relationship exists between the records, thisid should designate the parent, and thatid should designate the child.

Pk/Fk/I	Column	Storage type	Description	Null?
	thisid	*number(10,0)*	Thisname identifier	Y
I	thatid	*number(10,0)*	Thatname identifier	Y
	thisname	*varchar2(8)*	Key for thisid (grid, orid, ntid, and so on)	Y
	thatname	*varchar2(8)*	Key for thatid (arid, orid, nfid, and so on)	Y
	thisdb	*varchar2(32)*	Database account for the records specified by thisid and thisname	Y
	thatdb	*varchar2(32)*	Database account for the records specified by thatid and thatname	Y
	lddate	*date*	Load date	Y

Indexes:	XTAGTHATIDNDX(thatid)

3.2. SHI Column Descriptions

3.2.1. ACCOUNT

Tables	DATAREADY (IDCX)			
Description	Database account name. The tagid and tagname pointing to the data to be distributed by the Subscription Subsystem are in this database account.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	N
Range	any string up to 24 characters			

3.2.2. ACOEF

Tables	SPVAR (REB)			
Description	Coefficient "a" of the quadratic trend of the log spectrum between frequencies fmin and fmax. The spectrum is measured in nm-sec.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	any floating point value			

3.2.3. ACTION

Tables	ALLOCATE_HOUR (LEB)			
Description	Analyst task performed on this time-block of data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	N
Range	action IN {AfterShock, Allocate, Bull_QC, Del_Pass, RebDone, Scan_Pass}			

3.2.4. ADDRESS

Tables	SUBS (IDCX)			
Description	FTP and email address (normally fully qualified in the form user@domain) for a user of the Subscription system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	any valid email address			

3.2.5. ALGORITHM

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Location algorithm used. This column is a brief textual description of the algorithm used for computing a seismic origin.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to the character field width			

3.2.6. AMCOR

Tables	SITEAUX (STATIC)			
Description	Site-dependent log amplitude correction.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f10.1	Y
Range	amcor > -999.0			

3.2.7. AMCORSD

Tables	SITEAUX (STATIC)			
Description	Standard deviation for log amplitude correction.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f5.2	Y
Range	amcorsd > 0.0			

3.2.8. AMP

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Measured amplitude defined by amptype.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers or dimensionless depending on the type of channel	-1.0	f11.2	Y
Range	amp > 0.0			

3.2.9. AMP

Tables				
Description	Measured amplitude defined by amptype. Amplitude is greater than zero in all cases except amptype=FmSig, which can be negative (and is for around 50% of cases).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers or dimensionless depending on the type of channel	-1.0	f11.2	Y
Range	amp > 0.0 (except FmSig: can be negative)			

3.2.10. AMP_HI

Tables	BREGION_TAB (STATIC)			
Description	Maximum amplitude for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	nanometers	-1	f11.2	Y
Range	amp_hi > 0			

3.2.11. AMP_LO

Tables	BREGION_TAB (STATIC)			
Description	Minimum amplitude for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	nanometers	-1	f11.2	Y
Range	amp_lo > 0			

3.2.12. AMPID

Tables	STAMAG (SEL2), STAMAG (SEL3)			
Description	Amplitude identifier. Every amplitude measure is assigned a unique positive integer that identifies it in the database. If an associated stamag record exists, then ampid links it to amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	ampid > 0			

3.2.13. AMPID

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Amplitude identifier. Every amplitude measure is assigned a unique positive integer that identifies it in the database. If an associated stamag record exists, then ampid links it to amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	ampid > 0			

3.2.14. AMPLR

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Maximum 3-component amplitude for all overlapping time windows used in the polarization analysis. This column is equal to the sum of the square roots of the eigenvalues. The only difference between amps and amplr is in the definition of the overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-1.0	f7.2	Y
Range	amplr > 0.0			

3.2.15. AMPP

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	3-component amplitude measured at the time of the maximum rectilinearity. This column is equal to the sum of the square roots of the eigenvalues (that is, it is the sum of the amplitudes measured along the three axes of the polarization ellipsoid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-1.0	f7.2	Y
Range	ampp > 0.0			

3.2.16. AMPS

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Maximum 3-component amplitude for all overlapping time windows used in the polarization analysis. This column is equal to the sum of the square roots of the eigenvalues. The only difference between amps and amplr is in the definition of the overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-1.0	f7.2	Y
Range	amps > 0.0			

3.2.17. AMPTIME

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Epoch time of amplitude measure.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.18. AMPTYPE

Tables	AMPDESCRIPT (IDCX)			
Description	Amplitude measure descriptor. This descriptor is used to uniquely identify an amplitude measurement and link the description in ampdescript with actual measurements in amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	N
Range	any free-format string up to eight characters			

3.2.19. AMPTYPE

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Amplitude measure descriptor. This descriptor is used to uniquely identify an amplitude measurement and link the description in ampdescript with actual measurements in amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any free-format string up to eight characters			

3.2.20. APMARID

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Unique apma recipe identifier. Each arrival in apma is assigned a positive integer identifying it with the recipe used in the polarization analysis.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	apmarid > 0			

3.2.21. ARCHID

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Archive identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	archid > 0			

3.2.22. ARID

Tables	APMA (IDCX), APMA (LEB), APMA (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), HYDRO_ASSOC (IDCX), HYDRO_ASSOC (LEB), HYDRO_ASSOC (REB), HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB), PMCC_FEATURES (IDCX), SPVAR (REB), THIRDMOM (REB)			
Description	Arrival identifier. Each arrival is assigned a positive integer identifying it with a unique sta, chan, and time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	arid > 0			

3.2.23. ARID

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB), AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Arrival identifier. Each arrival is assigned a positive integer identifying it with a unique sta, chan, and time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	arid >= -1			

3.2.24. ARRAY

Tables	REQUEST (IDCX)			
Description	Array code. Network or station name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	Y
Range	any string matching the net column in Affiliation (Stanet)			

3.2.25. ASSTR

Tables	BULL_COMP (IDCX)			
Description	Association strength: strong (s) or weak (w)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		NOT ALLOWED	a1	Y
Range	asstr IN {s,w }			

3.2.26. ATTENID

Tables	ATTENCOEF (STATIC)			
Description	Attenuation coefficient set identifier. Each set of attenuation coefficients is assigned a unique positive integer to identify the change history.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		- (hyphen)	a20	N
Range	any valid string up to 20 characters			

3.2.27. ATTRIBUTE

Tables	NA_VALUE (IDCX)			
Description	Name of the column to which a NA value is to be assigned.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)		NOT ALLOWED	a30	N
Range	any valid string up to the character width			

3.2.28. AUTH

Tables	REVAUDIT (LEB)			
Description	Author, the originator of the data. Auth may also identify an application generating or modifying the record, such as an automated interpretation or signal-processing program.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	N
Range	any string up to the column character width			

3.2.29. AUTH

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), APMA (IDCX), APMA (LEB), APMA (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3), NETWORK (STATIC), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), OUTAGE (IDCX), PMCC_FEATURES (IDCX), QCSTATS (IDCX), SITEAUX (STATIC), STASSOC (IDCX)			
Description	Author, the originator of the data. Auth may also identify an application generating or modifying the record, such as an automated interpretation or signal-processing program.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to the column character width			

3.2.30. AUTH

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Author, the originator of the data. Auth may also identify an application generating the record, such as an automated interpretation or signal-processing program.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to the column character width			

3.2.31. AUTH

Tables	DISCARD (LEB), DISCARD (REB)			
Description	Name of the Analyst discarding the event			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to the column character width			

3.2.32. AUTH

Tables	ALLOCATE_HOUR (LEB)			
Description	Name of the Analyst processing the time block			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to the column character width			

3.2.33. AUTHOR

Tables	FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX)			
Description	Author of the data pointed to by the dir and dfile attributes			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to the character field width			

3.2.34. AUXID

Tables	OUTAGE (IDCX)			
Description	Auxiliary identification code.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	any valid auxiliary code up to four characters			

3.2.35. AVAILABLE

Tables	OUTAGE (IDCX)			
Description	Flag to specify if data are available (t) or unavailable (f).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		NOT ALLOWED	a1	Y
Range	available IN {t, f}			

3.2.36. AVE_NOISE

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Average pressure of the noise segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re mPa	-1.0	f9.4	Y
Range	ave_noise > 0.0			

3.2.37. AVGCONSTVAL

Tables	QCSTATS (IDCX)			
Description	Average value of data in masked constant segments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	same as waveform data	-999.0	f17.5	Y
Range	aveconstval >= 0.0			

3.2.38. AWEIGHT

Tables	WEIGHTS (STATIC)			
Description	Azimuth weight.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		0.0	f5.2	Y
Range	aweight >= 0.0			

3.2.39. AZ1

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Azimuth estimated from the time lags of arrivals in a hydro-arrival group.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= az1 < 360.0			

3.2.40. AZ2

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Azimuth estimated from the time lags of arrivals in a hydro-arrival group. This second azimuth estimate is only needed when only two arrivals exist in a group, which results in an ambiguity between two equally likely azimuths. The error is the same for the two azimuths.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= az2 < 360.0			

3.2.41. AZ_REL

Tables				
Description	Azimuth reliability estimate			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	scale value between 0 and 1	-1	f8.3	Y
Range	0.0 <= az_rel <= 1.0			

3.2.42. AZ_RELY

Tables	STA_RELY (STATIC)			
Description	Azimuth reliability flag. The value is a single-character flag to indicate whether (y) or not (n) the azimuth is considered to be reliable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	Y
Range	az_rely IN { 0,1}			

3.2.43. AZ_WEIGHT

Tables	PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Weight given to defining azimuth for this phase type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	N
Range				

3.2.44. AZCONTRIB

Tables	HYDRO_ASSOC (IDCX), HYDRO_ASSOC (LEB), HYDRO_ASSOC (REB)			
Description	Flag that specifies if an arrival that belongs to a hydro arrival group was used to calculate the azimuth.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	azcontrib IN {y, n}			

3.2.45. AZDEF

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Azimuth-defining code. The one-character flag indicates whether or not the azimuth of a phase was used to constrain the event location solution. This column is defining (azdef = d) if it was used in the location, non defining (azdef = n) if it was not.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	azdef IN {d, n}			

3.2.46. AZI_HI

Tables	BREGION_TAB (STATIC)			
Description	Maximum azimuth for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees	-1	f7.2	Y
Range	0 <= az_hi < 360			

3.2.47. AZI_LO

Tables	BREGION_TAB (STATIC)			
Description	Minimum azimuth for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees	-1	f7.2	Y
Range	0 <= az_lo < 360			

3.2.48. AZIMUTH

Tables	STASSOC (IDCX)			
Description	Estimated azimuth. This value is the estimated station-to-event azimuth measured clockwise from North.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= azimuth < 360.0			

3.2.49. AZIMUTH

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Observed azimuth. This value is the estimated station-to-event azimuth measured clockwise from North. The estimate can be made in a variety of ways, including f-k or polarization analysis.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= azimuth < 360.0			

3.2.50. AZIMUTH

Tables	PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3)			
Description	Predicted azimuth. This value is the estimated station-to-event azimuth measured clockwise from North.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= azimuth < 360.0			

3.2.51. AZRES

Tables	DEFINE_PHASE_RESIDUAL (STATIC)			
Description	Allowable azimuth residual			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f7.1	N
Range	-180.0 <= azres <= 180.0			

3.2.52. AZRES

Tables	ALLOW_RESID (LEB), ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Azimuth residual. The value is the difference between the measured station-to-event azimuth for an arrival and the true azimuth. The true azimuth is the bearing to the inferred event origin.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.1	Y
Range	-180.0 <= azres <= 180.0			

3.2.53. BAND

Tables	INSTRUMENT (STATIC)			
Description	Frequency band. The value is a qualitative indicator of frequency passband for an instrument. Values should reflect the response curve rather than just the sample rate. Recommended values are as follows: s (short-period) m (mid-period) i (intermediate-period) l (long-period) b (broadband) h (high-frequency, very short-period) v (very long-period) For a better notion of the instrument characteristics, see the instrument response curve.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	band IN {s, m, i, l, b, h, v}			

3.2.54. BANDW

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Difference between the high and low frequency bands used in the processing detection or amplitude processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f7.3	Y
Range	bandw > 0.0			

3.2.55. BCOEF

Tables	SPVAR (REB)			
Description	Coefficient "b" of the quadratic trend of the log spectrum between frequencies fmin and fmax. The spectrum is measured in nm-sec.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	any floating point value			

3.2.56. BEGIN_DATE

Tables	PARTICIPATION (STATIC)			
Description	Beginning date of station participation in a particular net.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	Y
Range	any valid Julian date (yyyyddd)			

3.2.57. BELIEF

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Phase identification confidence level. The value is a qualitative estimate of the confidence that a seismic phase is correctly identified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f4.2	Y
Range	0.0 <= belief <= 1.0			

3.2.58. BINFOFF

Tables	HISTORY (IDCX)			
Description	The offset reached in the binary (bin) file. This offset is guaranteed to be one byte after the last data processed and committed to the database by the application cd2w.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range	binoff >= 0			

3.2.59. BMTYP

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	String indicating a coherent (coh), incoherent (inc), or horizontal (hor) beam type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	bmtyp IN {coh, inc, hor}			

3.2.60. BORDERCOLOR

Tables	MAPDISC (MAP)			
Description	Map border color name. A solid colored border may appear on the top, bottom, and right of any raster map.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	any string up to 32 characters that forms a valid X11 color name (for example, black)			

3.2.61. BREGID

Tables	BREGION_DEF (STATIC), BREGION_TAB (STATIC)			
Description	Number corresponding to a geographic region, used as an index internally in the Scanner program.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i4	N
Range	0 < bregid < 99999999			

3.2.62. BREGNAME

Tables	BREGION_DEF (STATIC), BREGION_TAB (STATIC)			
Description	Arbitrary name for a region used by the Scanner program, usually linked to geographic location.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		NOT ALLOWED	a32	N
Range	Any aplhanumeric string up to the character limit			

3.2.63. CALIB

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Calibration factor. The value is the conversion factor that maps digital data to earth displacement. The factor holds true at the oscillation period specified by the column calper. A positive value means ground motion increasing in component direction (up, north, east) is indicated by increasing counts. A negative value means the opposite. Calib generally reflects the best calibration information available at the time of recording, but refinement may be given in Sensor, reflecting a subsequent recalibration of the instrument (see calratio).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers/digital count	NOT ALLOWED	f16.6	Y
Range	any nonzero floating point number			

3.2.64. CALPER

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), SENSOR (STATIC), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Calibration period. This gives the period for which calib, ncalib, and calratio are valid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	NOT ALLOWED	f16.6	Y
Range	calper > 0.0			

3.2.65. CALRATIO

Tables	SENSOR (STATIC)			
Description	Calibration conversion ratio. The value is a dimensionless calibration correction factor that permits small refinements to the calibration correction made using calib and calper from the Wfdisc table. Often, the wfdisc calib contains the nominal calibration assumed at the time of data recording. If the instrument is recalibrated, calratio provides a mechanism to update calibrations from wfdisc with the new information without modifying the wfdisc table. A positive value means ground motion increasing in component direction (up, north, east) is indicated by increasing counts. A negative value means the opposite. Calratio is meant to reflect the most accurate calibration information for the time period for which the sensor record is appropriate, but the nominal value may appear until other information is available.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f16.6	Y
Range	any nonzero floating point number			

3.2.66. CAPABILITY

Tables	CHANNAME (STATIC)			
Description	Capability. These values are used by the Station Quality application, squal. cd2w only processes channels with a capability less than ten (10). In addition, cd2w only updates the waveinterval table for channels with a capability equal to one (1).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)	integer	NOT ALLOWED	i4	Y
Range	-1 <= capability < 18			

3.2.67. CCOEF

Tables	SPVAR (REB)			
Description	Coefficient "c" of the quadratic trend of the log spectrum between frequencies fmin and fmax. The spectrum is measured in nm-sec.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	any floating point value			

3.2.68. CEP_DELAY_TIME_SIGNAL

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Bubble pulse delay time estimate where the cepstrum is computed from the NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f9.4	Y
Range	cep_delay_time_signal > 0.0			

3.2.69. CEP_DELAY_TIME_TREND

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Bubble pulse delay time estimate where the cepstrum is computed from the trend of NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f9.4	Y
Range	cep_delay_time_trend > 0.0			

3.2.70. CEP_PEAK_STD_SIGNAL

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Number of standard deviations from the mean for the largest cepstrum amplitude where the cepstrum is computed from the NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	standard deviations	-1.0	f9.4	Y
Range	cep_peak_std_signal > 0.0			

3.2.71. CEP_PEAK_STD_TREND

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Number of standard deviations from the mean for the largest cepstrum amplitude where the cepstrum is computed with the trend of the NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	standard deviations	-1.0	f9.4	Y
Range	cep_peak_std_trend > 0.0			

3.2.72. CEP_VAR_SIGNAL

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Variance of the cepstrum computed using NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f9.4	Y
Range	cep_var_signal > 0.0			

3.2.73. CEP_VAR_TREND

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Variance of the cepstrum computed using the trend from the NSE-detrended spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	standard deviations	-1.0	f9.4	Y
Range	cep_var_trend > 0.0			

3.2.74. CFREQ

Tables	PMCC_FEATURES (IDCX)			
Description	Central frequency (Hz)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f7.2	Y
Range	cfreq > 0.0			

3.2.75. CFREQ

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Central frequency of a beam or f-k spectrum (Hz)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f7.2	Y
Range	cfreq > 0.0			

3.2.76. CHAN

Tables	SITEPOLL (STATIC)			
Description	Channel identifier. The value is an eight-character code that specifies a particular channel within a network (station), which, taken together with sta and time, uniquely identifies seismic timeseries data, including the geographic location, spatial orientation, sensor, and subsequent data processing (beam channel descriptor).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any alphanumic string up to the character field width			

3.2.77. CHAN

Tables	ATTENCOEF (STATIC), BEAMAUX (STATIC), DUPWFDISC (IDCX), FORBEAMAUX (STATIC), PRODUCTTYPESTA (IDCX), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), REQUEST (IDCX), SENSOR (STATIC), SITEAUX (STATIC), SITECHAN (STATIC), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Channel identifier. The value is an eight-character code that specifies a particular channel within a network (station), which, taken together with sta and time, uniquely identifies seismic timeseries data, including the geographic location, spatial orientation, sensor, and subsequent data processing (beam channel descriptor).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	any alphanumic string up to the character field width			

3.2.78. CHAN

Tables	DERVDISC (IDCX)			
Description	Channel name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	any alphanumic string up to the character field width			

3.2.79. CHAN

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), CHAN_GROUPS (IDCX), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), EVSC_REGIONAL (IDCX), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), OUTAGE (IDCX)			
Description	Channel identifier. The value is an eight-character code that specifies a particular channel within a network (station), which, taken together with sta and time, uniquely identifies seismic timeseries data, including the geographic location, spatial orientation, sensor, and subsequent data processing (beam channel descriptor).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	Y
Range	any alphanumic string up to the character field width			

3.2.80. CHANID

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), SENSOR (STATIC), SITECHAN (STATIC), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Channel recording identifier. The value is a surrogate key used to uniquely identify a specific recording. Chanid duplicates the information of the compound key sta, chan, time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	chanid > 0			

3.2.81. CLASS

Tables	INTERVAL (IDCX), INTERVAL (MIGRATE)			
Description	Problem class or object class for interval and request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	N
Range	any free-format string up to the character limit			

3.2.82. CLASS

Tables	CHAN_GROUPS (IDCX), REQUEST (IDCX)			
Description	Problem class or object class for interval and request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any free-format string up to the character limit			

3.2.83. CLASS

Tables	PROBLEM (IDCX)			
Description	Problem class or object class for interval and request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(33)		- (hyphen)	a33	Y
Range	any free-format string up to the character limit			

3.2.84. CLFFOFF

Tables	HISTORY (IDCX)			
Description	Contains the byte offset into the Concise List of Frames (CLF) file. The clf file is always stored in the same directory as the bin file. If the clfTable parameter is null (i.e. set to an empty string) then cd2w sets this fields to zero.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range	clfoff >= 0			

3.2.85. CLIP

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Clipped data flag. The value is a single-character flag to indicate whether (c) or not (n) the data were clipped.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	clip IN {c, n}			

3.2.86. CLRPTH

Tables	EVSC_PROD (IDCX)			
Description	Hydroacoustic clear-path flag. Set to 1 if all paths within the location error ellipse are clear to at least one hydroacoustic station in a given set.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		-1	i1	Y
Range	clrpth IN {0,1}			

3.2.87. COLORMAPID

Tables	COLORDISC (MAP), MAPCOLOR (MAP)			
Description	Colordisc identifier. Each colordisc is assigned a unique positive integer that identifies it in a database. The colormapid identifies color-lookup tables available to maps.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	colormapid > 0			

3.2.88. COLORMAPNAME

Tables	COLORDISC (MAP)			
Description	Colormap name that identifies the color-lookup table in a listing of available tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	any string up to 64 characters			

3.2.89. COLORNAME

Tables	OVERLAYDISC (MAP)			
Description	Overlay color name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	N
Range	any valid color name			

3.2.90. COMMAND

Tables	MSGAUX (IDCX)			
Description	Command that was being executed when the failure occurred. If this cannot be determined, such as a caught signal from UNIX, then the value is set to "signal caught."			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any string up to the character field width that is a valid user name			

3.2.91. COMMID

Tables	REMARK (IDCX), REMARK (LEB), REMARK (REB), REMARK (SEL1), REMARK (SEL2), REMARK (SEL3), REMARK (STATIC)			
Description	Comment identifier. The value is a key that points to free-form comments entered in the remark table. These comments store additional information about a record in another table. The remark table can have many records with the same commid and different lineno, but the same commid will appear in only one other record among the rest of the tables in the database (see lineno)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	commid > 0			

3.2.92. COMMID

Tables	ALLOCATE_HOUR (LEB), APMA (IDCX), APMA (LEB), APMA (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), DATAUSER (IDCX), DERVDISC (IDCX), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), DUPWFDISC (IDCX), EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3), MSGDISC (IDCX), NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), NETWORK (STATIC), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), OUTAGE (IDCX), PMCC_FEATURES (IDCX), QUARANTINEWFDISC (IDCX), SITEAUX (STATIC), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3), STASSOC (IDCX)			
Description	Comment identifier. The value is a key that points to free-form comments entered in the remark table. These comments store additional information about a record in another table. The remark table can have many records with the same commid and different lineno, but the same commid will appear in only one other record among the rest of the tables in the database (see lineno)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	commid > 0			

3.2.93. COMMID

Tables	WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Comment identifier. The value is a key that points to free-form comments entered in the remark table. These comments store additional information about a record in another table. The remark table can have many records with the same commid and different lineno, but the same commid will appear in only one other record among the rest of the tables in the database (see lineno)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	commid > 0			

3.2.94. COMMID

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3)			
Description	Comment identifier. The value is a key that points to free-form comments entered in the remark table. These comments store additional information about a record in another table. The remark table can have many records with the same commid and different lineno, but the same commid will appear in only one other record among the rest of the tables in the database (see lineno).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	commid > 0			

3.2.95. COMPLETE

Tables	REQUEST (IDCX)			
Description	Percentage complete. Percentage of waveform data acquired for this request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	percent	NOT ALLOWED	i8	Y
Range	0 <= complete <= 100			

3.2.96. COMPLEXITY

Tables	COMPLEXITY (REB)			
Description	Signal complexity measure estimated by DFX application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f11.4	Y
Range	complexity >= 0.0			

3.2.97. CONF

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Confidence measure for a particular event identification method.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f5.3	Y
Range	0.5 <= conf <= 1.0			

3.2.98. CONSIDER

Tables	EVSC_PROD (IDCX)			
Description	Flag indicating whether (1) or not (0) an event was considered for screening.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)	consider IN {0, 1}	NOT ALLOWED	i1	Y
Range				

3.2.99. CONSISTENCY

Tables	PMCC_FEATURES (IDCX)			
Description	Mean consistency value of the detection pixels in the PMCC family (seconds)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	Y
Range				

3.2.100. CONST

Tables	QCSTATS (IDCX)			
Description	Amount of data in the detection processing interval masked due to constant segments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	const >= 0.0			

3.2.101. CONSTRAIN_DEPTH

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that tells location process whether or not to fix (constrain) the current hypocentral depth. If TRUE (1), the depth will be fixed to the value specified on the first (summary) line of the DATA file or as specified by the depth column of the Origin (Origin_temp_ga) table. If FALSE (0), the depth is an independent solution parameter. Default is TRUE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	constrain_depth IN {0, 1}			

3.2.102. CONSTRAIN_LATLON

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that tells location process whether or not to fix (constrain) the current epicentral location. If TRUE (1), the latitude and longitude will be fixed to the value specified by the lat and lon columns of the Origin (Origin_temp_ga) table. If FALSE (0), the latitude and longitude are independent solution parameters. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	constrain_latlon IN {0, 1}			

3.2.103. CONSTRAIN_OT

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that tells location process whether or not to fix (constrain) the current origin time. If TRUE (1), the origin time will be fixed to the value specified by the time column of the Origin (Origin_temp_ga) table. If FALSE (0), the origin time is an independent solution parameter. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	constrain_ot IN {0, 1}			

3.2.104. CORRELATION

Tables	PMCC_FEATURES (IDCX)			
Description	Mean correlation coefficient of the detection pixels in the PMCC family			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.6	Y
Range				

3.2.105. COUNTRY

Tables	SITE_ADDRESS (STATIC)			
Description	Full country name for a sensor site.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)		- (hyphen)	a40	Y
Range	any string up to 40 characters			

3.2.106. COV_DEPTH_TIME

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Coverage ellipse depth/time conversion factor. The value is the conversion factor to be multiplied by the depth and origin time axes (sdepth and stime) of the confidence ellipse to recover the coverage ellipse without having to do a complete relocation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f9.4	Y
Range	cov_depth_time > 0.0			

3.2.107. COV_SM_AXES

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Coverage ellipse semi-axis conversion factor. The value is the conversion factor to be multiplied by the semi-major and semi-minor axes of the confidence ellipse to recover the coverage ellipse without having to do a complete relocation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f9.4	Y
Range	cov_sm_axes > 0.0			

3.2.108. CP_BROAD_BAND

Tables	EVSC_HYDRO (IDCX)			
Description	The cep_peak_std_signal from table Hydro_features in the 2-80 Hz band for a given orid/sta pair.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	standard deviations	-1.0	f7.2	Y
Range	cp_broad_band > 0.0			

3.2.109. CREATEDATE

Tables	WAVEINTERVAL (IDCX)			
Description	Load date. The date and time the record was inserted into the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date		a21	Y
Range	any valid ORACLE date			

3.2.110. CTYPE

Tables	SITECHAN (STATIC)			
Description	Channel type. This column specifies the type of data channel: n (normal, a normal instrument response), b (beam, a coherent beam formed with array data), or i (an incoherent beam or energy stack).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	ctype IN {n, b, i}			

3.2.111. CYCLE_SIZE

Tables	PRODUCTCRITERIA (IDCX)			
Description	Size to which a subscription product should be allowed to grow before distributing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	Kilobytes	-1	i8	Y
Range	cycle_size > 0			

3.2.112. CYCLE_TIME

Tables	PRODUCTCRITERIA (IDCX)			
Description	Period of cyclicity for a product in the Subscription Subsystem that is how often a product should be delivered.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)	Hours	-1	i4	Y
Range	cycle_time > 0			

3.2.113. DATA_INFO

Tables	DATAREADY (IDCX)			
Description	Miscellaneous data information for the Subscription Subsystem, such as the station name for station processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any character string up to 24 characters			

3.2.114. DATAID

Tables	DATAREADY (IDCX), PRODTRACK (IDCX)			
Description	Unique identifier for the dataready table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	dataid >= 0			

3.2.115. DATATYPE

Tables	DERVDISC (IDCX)			
Description	Data type (bi: binary as:ASCII)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	datatype IN {bi, as}			

3.2.116. DATATYPE

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Data type of waveform segment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	any valid data type in lowercase			

3.2.117. DATATYPE

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Data type (or class of data).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any uppercase string up to the character field width			

3.2.118. DDEPTH

Tables	BULL_COMP (IDCX)			
Description	Difference in depth			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f6.1	Y
Range	ddepth > -999.0			

3.2.119. DDIST

Tables	BULL_COMP (IDCX)			
Description	Distance between two events considered to be matched (kilometers)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-1.0	f8.3	Y
Range	ddist >= 0.0			

3.2.120. DEAST

Tables	SITE (STATIC)			
Description	Distance east. This column gives the "easting," or the relative position of an array element east of the location of the array centre specified by the value of refsta (see dnorth).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	0.0	f9.4	Y
Range	-20,000.0 <= deast <= 20,000.0			

3.2.121. DELAZ

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Azimuth uncertainty. This column is an estimate of the standard deviation of the azimuth of a signal.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	delaz > 0.0			

3.2.122. DELIV_METH

Tables	SUBS (IDCX)			
Description	Delivery method for subscription products.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	deliv_meth IN {ftp, email, www}			

3.2.123. DELIVID

Tables	PRODTRACK (IDCX)			
Description	Identifier that is unique and consecutive for each product constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	delivid >= 0			

3.2.124. DELIVID

Tables	PRODUCTCRITERIA (IDCX)			
Description	Last delivery identifier for this product			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	delivid >= 0			

3.2.125. DELSLO

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Slowness uncertainty. This column is an estimate of the standard deviation of the slowness of a signal. Note that different units are used in ARRIVAL and DETECTION tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/degree	-1.0	f7.2	Y
Range	delslo > 0.0			

3.2.126. DELSLO

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Slowness uncertainty. This column is an estimate of the standard deviation of the slowness of a signal. Note that different units are used in ARRIVAL and DETECTION tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/kilometers	-1.0	f7.2	Y
Range	delslo > 0.0			

3.2.127. DELTA

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), EVSC_REGIONAL (IDCX), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Source-receiver distance in degrees. This column is the arc length, over the Earth's surface, of the path the seismic phase follows from source to receiver. The location of the origin is specified in the origin (origin_temp_ga) record referenced by the column orid. The column arid points to the record in the arrival table that identifies the receiver. The value of the column can exceed 360 degrees. The geographic distance between source and receiver is delta modulo(180).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f8.3	Y
Range	delta >= 0.0			

3.2.128. DELTIM

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Arrival time uncertainty. This column is an estimate of the standard deviation of an arrival time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f6.3	Y
Range	deltim > 0.0			

3.2.129. DEPDP

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Depth as estimated from depth phases. The value is a measure of event depth estimated from a depth phase or an average of several depth phases. Depth is measured positive in a downwards direction starting from the earths surface (see ndp).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	0.0 <= depdp < 1000.0			

3.2.130. DEPTH

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Source depth in kilometers. This column gives the depth (positive down) of the event origin. Negative depth implies an atmospheric event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	N
Range	-100.0 <= depth < 1000.0 0			

3.2.131. DEPTH

Tables	EVSC_PROD (IDCX)			
Description	Depth estimate in kilometers. This column gives the depth of the event origin. Must be >= 0. Atmospheric events, with negative depth are not allowed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	0 <= depth < 1000.0			

3.2.132. DEPTH

Tables	STASSOC (IDCX)			
Description	Source depth in kilometers. This column gives the depth (positive down) of the event origin. Negative depth implies an atmospheric event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	-100.0 <= depth < 1000.0 0			

3.2.133. DEPTH_CONF

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Confidence level of a one-sided confidence interval of the source depth, used for the depth screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0 < depth_conf < 1.0			

3.2.134. DEPTH_KVALUE

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Depth uncertainty k-value, used to specify additional uncertainty in seismic free-depth solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	0.0 < depth_kvalue < 1000.0			

3.2.135. DEPTH_THRESH

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Depth screening threshold. An event with a one-sided confidence interval for its source depth that is deeper than this threshold is screened out at the confidence level given by depth_conf.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	0.0 < depth_thresh < 1000.0			

3.2.136. DEPTHERR

Tables	EVSC_PROD (IDCX)			
Description	Depth error. This is the size of the one-sided depth confidence interval used for event screening for a confidence level given by depth_conf in table Producttypeevsc. A model uncertainty term, given by depth_kvalue in table producttypeevsc, is included for free-depth solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	deptherr > 0.0			

3.2.137. DERVID

Tables	DERVDISC (IDCX)			
Description	Derived data unique identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	dervid > 0			

3.2.138. DERVTYPE

Tables	DERVDISC (IDCX)			
Description	Nature of the derived data (pix:PMCC detection pixels, fam: PMCC detection family)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	dervtype IN { fam, pix }			

3.2.139. DESCR

Tables	AMPDESCRIPT (IDCX)			
Description	Text description. Describes amplitude measurement parameters.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(255)		- (hyphen)	a255	Y
Range	any free-format string up to column size			

3.2.140. DESCRIP

Tables	PROBLEM (IDCX)			
Description	Text description.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(129)		- (hyphen)	a129	Y
Range	any free-format string up to the character limit			

3.2.141. DESCRIP

Tables	SITECHAN (STATIC)			
Description	Text description.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)		- (hyphen)	a50	Y
Range	any free-format string up to the character limit			

3.2.142. DEST

Tables	MIG_RULES (MIGRATE)			
Description	Destination database for migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)		NOT ALLOWED	a10	N
Range	any string up to 10 characters that is a valid name of database server			

3.2.143. DEST_TBL

Tables	MIG_RULES (MIGRATE)			
Description	Destination table name for database migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)		NOT ALLOWED	a30	N
Range	any valid database table_name up to the character width			

3.2.144. DETENDTIME

Tables	QCSTATS (IDCX)			
Description	End time of actual interval used for detection processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	detendtime < 9999999999.999			

3.2.145. DETTIME

Tables	QCSTATS (IDCX)			
Description	Start time of actual interval used for detection processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	dettime < 9999999999.999			

3.2.146. DFILE

Tables	COLORDISC (MAP), HISTORY (IDCX), MAPDISC (MAP), OVERLAYDISC (MAP)			
Description	Name of the data file. Must conform to UNIX file naming conventions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		NOT ALLOWED	a32	N
Range	any string up to the character limit that conforms to UNIX filename syntax			

3.2.147. DFILE

Tables	DERVDISC (IDCX), DUPWFDISC (IDCX), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), INSTRUMENT (STATIC), MSGDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Name of the data file. Must conform to UNIX file naming conventions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		NOT ALLOWED	a32	Y
Range	any string up to the character limit that conforms to UNIX filename syntax			

3.2.148. DFILE

Tables	PROBLEMLOG (IDCX)			
Description	Name of the data file. Must conform to UNIX file naming conventions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(65)		NOT ALLOWED	a65	Y
Range	any string up to the character limit that conforms to UNIX filename syntax			

3.2.149. DIGITAL

Tables	INSTRUMENT (STATIC)			
Description	Flag denoting whether this instrument record describes an analog (a) or digital (d) recording system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	digital IN {d, a}			

3.2.150. DIMX

Tables	MAPDISC (MAP)			
Description	Width (or x-dimension) of the map in pixels.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	pixels	NOT ALLOWED	i8	N
Range	dimx > 0			

3.2.151. DIMY

Tables	MAPDISC (MAP)			
Description	Height (or y-dimension) of the map in pixels.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	pixels	NOT ALLOWED	i8	N
Range	dimy > 0			

3.2.152. DIR

Tables	PROBLEMLOG (IDCX)			
Description	Directory. This column is the directory part of a path name and must conform to UNIX directory naming conventions. Relative path names or "." (dot), the notation for the current directory, may be used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(129)		NOT ALLOWED	a129	Y
Range	any string that conforms to UNIX directory name syntax			

3.2.153. DIR

Tables	COLORDISC (MAP), HISTORY (IDCX), MAPDISC (MAP), OVERLAYDISC (MAP)			
Description	Directory. This column is the directory part of a path name and must conform to UNIX directory naming conventions. Relative path names or "." (dot), the notation for the current directory, may be used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	N
Range	any string that conforms to UNIX directory name syntax			

3.2.154. DIR

Tables	DERVDISC (IDCX), DUPWFDISC (IDCX), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), INSTRUMENT (STATIC), MSGDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Directory. This column is the directory part of a path name and must conform to UNIX directory naming conventions. Relative path names or "." (dot), the notation for the current directory, may be used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	any string that conforms to UNIX directory name syntax			

3.2.155. DIST

Tables	STASSOC (IDCX)			
Description	Estimated distance. This column gives the approximate source-receiver distance as calculated from slowness (array measurements only), incident angle, or (S-P) times.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= dist <= 180.0			

3.2.156. DLAT

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Latitude increment between grid cells in the related (d)seisgrid file			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f9.4	Y
Range	dlat >= 0.0			

3.2.157. DLON

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Longitude increment between grid cells in Seisgrid (Dseisgrid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f9.4	Y
Range	dlon >= 0.0			

3.2.158. DMAX

Tables	ATTENCOEF (STATIC)			
Description	Maximum distance for which the regional distance correction is applicable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	0.0 < dmax < 2500.0			

3.2.159. DMIN

Tables	ATTENCOEF (STATIC)			
Description	Minimum distance for which the regional distance correction is applicable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	0.0 < dmin < 2500.0			

3.2.160. DNARR

Tables	BULL_COMP (IDCX)			
Description	Difference in the number of associated arrivals			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	dnarr >= 0			

3.2.161. DNDEF

Tables	BULL_COMP (IDCX)			
Description	Difference in number of time-defining phases			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	dndef >= 0			

3.2.162. DNORTH

Tables	SITE (STATIC)			
Description	Distance north. This column gives the "northing," or relative position of array element north of the array centre specified by the value of refsta (see deast).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	0.0	f9.4	Y
Range	-20,000.0 <= dnorth <= 20,000.0			

3.2.163. DOM_TO_SEND

Tables	PRODUCTCRITERIA (IDCX)			
Description	Day of month to send product.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)		-1	i2	Y
Range	0 < dom_to_send <= 31			

3.2.164. DOMAIN

Tables	DATAUSER (IDCX)			
Description	Domain name for a Subscription Subsystem user.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(48)		- (hyphen) NOT ALLOWED for datauser	a48	N
Range	any string up to 48 characters that is a valid internet domain			

3.2.165. DOMAIN

Tables	SUBSUSER (IDCX)			
Description	Domain name for a Subscription Subsystem user.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(48)		- (hyphen) NOT ALLOWED for datauser	a48	Y
Range	any string up to 48 characters that is a valid internet domain			

3.2.166. DOW_TO_SEND

Tables	PRODUCTCRITERIA (IDCX)			
Description	Day of week to deliver a product.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)		-1	i2	Y
Range	1 <= dow_to_send <= 7			

3.2.167. DROPPED

Tables	QCSTATS (IDCX)			
Description	Flag that indicates if the interval was dropped by DFX due to excessive masking.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	dropped IN {0, 1}			

3.2.168. DSCORE

Tables	EVSC_PROD (IDCX)			
Description	Score for the depth event-screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	dscore > -999.0			

3.2.169. DSIZE

Tables	FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX)			
Description	Size of data file in bytes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	NOT ALLOWED	i10	Y
Range	0 < dsize < 99,999,999			

3.2.170. DTIME

Tables	BULL_COMP (IDCX)			
Description	Difference in epoch time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f8.3	Y
Range	tdtime > -999.0			

3.2.171. DTYPE

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Depth determination flag. This single-character flag indicates the method by which the depth was determined or constrained during the location process. The recommended values are f (free), d (from depth phases), r (restrained by location program) or g (restrained by geophysicist). In cases r or g, either the auth column should indicate the agency or person responsible for this action, or the commid column should point to an explanation in the Remark table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	dtype IN {f, d, r, g}			

3.2.172. DURATION

Tables	PMCC_FEATURES (IDCX)			
Description	Duration of the PMCC family (seconds)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f8.3	Y
Range	duration > 0			

3.2.173. DURATION

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Total duration of amplitude window. Combined with start_time, the entire amplitude time window is specified. May also be employed to compute a coda duration magnitude if amp and per columns contain NA values.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	duration >= 0			

3.2.174. DURATION

Tables	CLF (IDCX)			
Description	Interval duration in seconds			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(24,0)	seconds	-999.0	f8.3	Y
Range	duration > 0			

3.2.175. DURATION

Tables	CHAN_GROUPS (IDCX)			
Description	This column is not used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	seconds		i8	Y
Range				

3.2.176. EAVCEP

Tables	TIMEFREQ (REB)			
Description	Average maximum value in the two-dimensional cepstrum of the east component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	eavcep >= 0			

3.2.177. EAVCOR

Tables	TIMEFREQ (REB)			
Description	Average autocorrelation along the time axis across all frequencies excluding randomized points of the east component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	eavcor >= 0			

3.2.178. EAVPCT

Tables	TIMEFREQ (REB)			
Description	Average ratio of bad points to total of the east component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	0 <= eavpct <= 1			

3.2.179. EDEPTH

Tables	SITECHAN (STATIC)			
Description	Emplacement depth. This column gives the depth at which the instrument is positioned, relative to the value of elev in the Site table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	NOT ALLOWED	f9.4	Y
Range	edepth >= 0.0			

3.2.180. ELEV

Tables	SITE (STATIC)			
Description	Surface elevation. This column is the elevation of the surface of the earth above a seismic station relative to mean sea level.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	-10.0 <= elev <= 10.0			

3.2.181. EMA

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Emergence angle. This column is the emergence angle of an arrival, as observed at a three-component station or array. The value increases from the vertical direction towards the horizontal.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= ema <= 90.0			

3.2.182. EMAILLIMIT

Tables	DATAUSER (IDCX)			
Description	Maximum size of message that will be delivered via email in the Message Subsystem.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	bytes	-1	i8	Y
Range	emaillimit >= 0			

3.2.183. EMAILTO

Tables	MSGDEST (IDCX)			
Description	Destination email address.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	Y
Range	any string up to 64 characters			

3.2.184. EMARES

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Emergence angle residual. This column is the difference between an observed emergence angle and the theoretical prediction for the same phase, assuming an event location as specified by the accompanying orid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.1	Y
Range	-90.0 <= emares <= 90.0			

3.2.185. END_DATE

Tables	PARTICIPATION (STATIC)			
Description	Date a station was discontinued from a network.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	any valid Julian date where end_date > begin_date (yyyyddd)			

3.2.186. END_TIME

Tables	REQUEST (IDCX)			
Description	Ending time of comparison or processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	N
Range	any valid epoch time			

3.2.187. ENDTIME

Tables	BEAMAUX (STATIC), SENSOR (STATIC)			
Description	End epochal time given as seconds and fractions of a second since 00:00:00.000 01-Jan-1970; stored in a double-precision floating number. This represents the endtime of the data segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	9999999999.999	f17.5	N
Range	endtime < +9999999999.999			

3.2.188. ENDTIME

Tables	DUPWFDISC (IDCX), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), INTERVAL (IDCX), INTERVAL (MIGRATE), OUTAGE (IDCX), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), WAVEINTERVAL (IDCX)			
Description	End epochal time given as seconds and fractions of a second since 00:00:00.000 01-Jan-1970; stored in a double-precision floating number. This represents the endtime of the data segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	9999999999.999	f17.5	Y
Range	endtime < +9999999999.999			

3.2.189. ENDTIME

Tables	WFDISC (IDCX), WFDISC (SEGMENT)			
Description	End epochal time given as seconds and fractions of a second since 00:00:00.000 01-Jan-1970; stored in a double-precision floating number. This represents the endtime of the data segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	endtime < +9999999999.999			

3.2.190. ENDTIME

Tables	PROBLEM (IDCX)			
Description	End epochal time given as seconds and fractions of a second since 00:00:00.000 01-Jan-1970; stored in a double-precision floating number. This represents the endtime of the data segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(17,5)	seconds	9999999999.999	f17.5	Y
Range	endtime < +9999999999.999			

3.2.191. ESAZ

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Event-to-station azimuth measured in degrees clockwise from North.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.2	Y
Range	0.0 <= esaz <= 360.0			

3.2.192. ETYPE

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), STASSOC (IDCX)			
Description	Event type. Describes the type of event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(7)		- (hyphen)	a7	Y
Range	etype IN {QUAKE, BLAST, EXPL, IND}			

3.2.193. EVID

Tables	DISCARD (LEB), DISCARD (REB)			
Description	Event identifier. Each event is assigned a unique positive integer that identifies it in a database. Several records in the origin table can have the same evid. this can accommodate opinions about the location of the event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	evid > 0			

3.2.194. EVID

Tables	EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3)			
Description	Event identifier. Each event is assigned a unique positive integer that identifies it in a database. Several records in the origin table can have the same evid. this can accommodate opinions about the location of the event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	evid > 0			

3.2.195. EVID

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB), NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), REQUEST (IDCX), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Event identifier. Each event is assigned a unique positive integer that identifies it in a database. Several records in the origin table can have the same evid. this can accommodate opinions about the location of the event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	evid > 0			

3.2.196. EVNAME

Tables	EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3)			
Description	Event name. This is the common name of the event identified by evid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any free-format string up to 15 characters			

3.2.197. EXTERN_CHAN

Tables	CHANNAME (STATIC)			
Description	The channel name used by the sending station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	any string up to the character field width			

3.2.198. EXTERN_STA

Tables	CHANNAME (STATIC)			
Description	The site name used by the sending station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case string up to the character field width			

3.2.199. EXTMSGID

Tables	MSGDISC (IDCX)			
Description	Value of the msgid column in a message that is received by the message system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		-1	a20	Y
Range	any string up to 20 characters			

3.2.200. FAMSIZE

Tables	PMCC_FEATURES (IDCX)			
Description	Number of detection pixels in the PMCC family			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			i8	Y
Range				

3.2.201. FILEOFF

Tables	MSGDISC (IDCX)			
Description	Number of bytes to the first character of the email file (first character of the email header). fileoff will always be 0 on the operations system, but will be reset when archived.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	-1	i10	Y
Range	fileoff > 0			

3.2.202. FILESIZE

Tables	MSGDISC (IDCX)			
Description	Size of file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	-1	i10	Y
Range	fileoff > 0			

3.2.203. FKQUAL

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	An integer quantifying the quality of the f-k spectrum. An fkqual = 1 is high quality; an fkqual = 4 is low quality.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		-1	f7.6	Y
Range	1 <= fkqual <= 4			

3.2.204. FM

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	First motion. This is a two-character indication of first motion. The first character describes first motion seen on short-period channels and the second holds for long-period instruments. Compression on a short-period sensor is denoted by c, dilatation by a d; and compression on a long-period sensor is denoted by u, dilatation by an r. Empty character positions will be indicated by dots (for example, ".r" for dilatation on a long-period sensor).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	all two-letter permutations of {c | d | .}, {u | r | .}			

3.2.205. FMAX

Tables	SPVAR (REB)			
Description	Maximum frequency of a band with snr > 3 dB used for the spectral variance calculation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	NOT ALLOWED	f7.2	N
Range	fmax > fmin			

3.2.206. FMIN

Tables	SPVAR (REB)			
Description	Minimum frequency of a band with snr > 3 dB used for the spectral variance calculation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	NOT ALLOWED	f7.2	N
Range	0 < fmin < fmax			

3.2.207. FOFF

Tables	CLF (IDCX)			
Description	File offset; the byte offset of a data segment within a physical data file. This column is nonzero if the data reference does not occur at the beginning of the file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	NOT ALLOWED	i10	N
Range	foff >= 0			

3.2.208. FOFF

Tables	QUARANTINEWFDISC (IDCX)			
Description	File offset; the byte offset of a data segment within a physical data file. This column is nonzero if the data reference does not occur at the beginning of the file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	NOT ALLOWED	i10	Y
Range	foff > 0			

3.2.209. FOFF

Tables	DERVDISC (IDCX), DUPWFDISC (IDCX), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), MSGDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	File offset; the byte offset of a data segment within a physical data file. This column is nonzero if the data reference does not occur at the beginning of the file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	NOT ALLOWED	i10	Y
Range	foff >= 0			

3.2.210. FOFF

Tables	MSGDATATYPE (IDCX)			
Description	File offset; the byte offset of a data segment within a physical data file. This column is nonzero if the data reference does not occur at the beginning of the file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	bytes	NOT ALLOWED	i8	N
Range	foff >= 0			

3.2.211. FOFFDFF

Tables	HISTORY (IDCX)			
Description	For CD-1.0 format data, contains the byte offset of the currently active data format frame (DFF). For CD-1.1 protocol data, the value is always zero.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	NOT ALLOWED	i10	Y
Range	foffdff >= 0			

3.2.212. FORD

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Filter order. In infra_features, this column identifies the order of the Infinite Impulse Response (IIR) filter used to extract the spectral band in which the standard fk spectrum calculation was performed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		0	i8	Y
Range	ford > 0			

3.2.213. FPID

Tables	FILEPRODUCT (IDCX)			
Description	File product identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	fpid > 0			

3.2.214. FRAMEID

Tables	CLF (IDCX)			
Description	Taken from the first column of the CLF file written by CD receiver. For CD-1.0 connections, this is the number of frames received since the last successful connection request. For CD-1.1 connections this is the frame creator, frame destination and sequence number fields, separated by slashes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(38)		NOT ALLOWED	a38	N
Range	any character string up to the character length of the column			

3.2.215. FRAMETYPE

Tables	CLF (IDCX)			
Description	Type of the frame (e.g. >d for an incoming data frame, received without warnings or errors and >D for an incoming data frame received with warnings or errors). Must be one of: {a,A,c,C,d,D,e,E,f,F,k,,l,,m,M,n,N,o,O,p,P,r,R,s,S,v,V,?}. Lowercase characters indicate frames received without warnings or errors, while uppercase versions indicate frames received with warnings or errors. See the CD Tools Software User Guide for full details.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a2	Y
Range	frametype IN {a,A,c,C,d,D,e,E,f,F,k,,l,,m,M,n,N,o,O,p,P,r,R,s,S,v,V,?}			

3.2.216. FREQ

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Centre frequency of the wideband polarization analysis. For example, if only the 2 - 4 Hz and 4 - 8 Hz bands satisfy the signal-to-noise ratio criterion, then freq is set to 5.0 Hz.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f7.2	Y
Range	freq > 0.0			

3.2.217. FRID

Tables	CLF (IDCX)			
Description	Frame identifier, providing link between CLF and FRAMEPRODUCT tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	frid >0			

3.2.218. FRID

Tables	FRAMEPRODUCT (IDCX)			
Description	Frame identifier, providing link between CLF and FRAMEPRODUCT tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	frid >0			

3.2.219. FSID

Tables	SPVAR (REB)			
Description	Fourier spectrum identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	fsid > 0			

3.2.220. FSTAT

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	F-statistic; a measure of the signal-to-noise ratio at the peak in the f-k spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f8.5	Y
Range	fstat >= 0			

3.2.221. FTP_ADDRESS

Tables	FTPLOGIN (IDCX)			
Description	FTP address of site from which IDC is attempting to transfer data message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	N
Range	any string up to 64 characters			

3.2.222. FTP_ADDRESS

Tables	FTPFAILED (IDCX)			
Description	FTP address of site from which IDC is attempting to transfer data message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	any string up to 64 characters			

3.2.223. FTYPE

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Filter type. This indicates the type of filtering that was performed for a Butterworth filter. "BP" indicates a band-pass filter between low_cut and high_cut; "LP" indicates a low-pass filter below high_cut; "HP" indicates a high-pass filter above low_cut; "BR" indicates a band-reject filter outside low_cut and high_cut.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	ftype IN {BP, LP, HP, BR}			

3.2.224. FZP

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Filter causality. This flag indicates zero-phase filtering. If it is 1, the filter is zero-phase (noncausal); if it is 0, the filter is not zero-phase (causal).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i1	Y
Range	fzp IN {0,1}			

3.2.225. GCTP1

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.226. GCTP10

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.227. GCTP11

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.228. GCTP12

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.229. GCTP13

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.230. GCTP14

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.231. GCTP15

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.232. GCTP2

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.233. GCTP3

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.234. GCTP4

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.235. GCTP5

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.236. GCTP6

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.237. GCTP7

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.238. GCTP8

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.239. GCTP9

Tables	MAPDISC (MAP)			
Description	General cartographic transformation package variable. The default for all values is 0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.4	Y
Range				

3.2.240. GRDNAME

Tables	DSEISGRID (STATIC), DSEISINDEX (STATIC), SEISGRID (STATIC), SEISINDEX (STATIC)			
Description	Name for identifying the basis of a natural seismicity grid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any free-format string up to six characters			

3.2.241. GRN

Tables	GREGION (STATIC)			
Description	Geographic region number, as defined by [Fli74].			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	N
Range	grn > 0			

3.2.242. GRN

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Geographic region number, as defined by [Fli74].			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	grn > 0			

3.2.243. GRNAME

Tables	GREGION (STATIC)			
Description	Geographic region name. This column is the common name of a geographic region, as given in [Fli74]. Names may have changed due to changing political circumstances (for example, old RHODESIA = new ZIMBABWE) (see grn and srname).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)		NOT ALLOWED	a40	Y
Range	any upper-case string up to 40 characters			

3.2.244. GRPNAME

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Group name for subscriptions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any valid string up to 24 characters			

3.2.245. GVHI

Tables	AMPDESCRIPT (IDCX)			
Description	High group velocity for determining a time window. This column defines the start time of an amplitude measurement window if toff is null. If gvhi is used, then gvlo must be used to define the end time of the window.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers/second	-999.0	f5.2	Y
Range	gvhi > gvlo			

3.2.246. GVLO

Tables	AMPDESCRIPT (IDCX)			
Description	Low group velocity for determining a time window. This column defines the end time of an amplitude measurement window if tlen is null or if gvhi is used to define the start time of the window.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers/second	-999.0	f5.2	Y
Range	gvlo > 0			

3.2.247. HAMP

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Horizontal amplitude. Absolute maximum amplitude (nm) measured on the root of the sum of the squares of two horizontally-oriented components filtered in a frequency band centred at cfreq Hz.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-999.0	f11.2	Y
Range	hamp >= 0.0			

3.2.248. HANG

Tables	SITECHAN (STATIC)			
Description	Horizontal orientation of seismometer. This column specifies the orientation of the seismometer in the horizontal plane, measured clockwise from North. For a North-South orientation with the seismometer pointing toward the north, hang = 0.0; for East-West orientation with the seismometer pointing toward the west, hang = 270.0 (see vang).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f6.1	Y
Range	0.0 <= hang <= 360.0			

3.2.249. HEADER_FPID

Tables	FPDESCRIPTION (IDCX)			
Description	Fpid pointing to the header row for this product type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	header_fpid > 0			

3.2.250. HIGH_CUT

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	High-cut frequency of filter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f9.4	Y
Range	0.0 <= high_cut <= sample rate/2			

3.2.251. HMXMN

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Maximum-to-minimum horizontal amplitude ratio defined as (l1/l2)1/2 where l1 and l2 are the maximum and minimum eigenvalues obtained by solving the 2-D eigensystem using only the horizontal components. This S-type value is calculated at the time of maximum 3-component amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	hmxmn >= 0.0			

3.2.252. HOST

Tables	HISTORY (IDCX)			
Description	Hostname of the cd2w instance that inserted or last updated this row			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any string up to (16, 24) characters that is a valid user name			

3.2.253. HOUR

Tables	ALLOCATE_HOUR (LEB)			
Description	Starting hour of a time block for interactive analysis.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)	hours	NOT ALLOWED	i2	N
Range	0 <= hour <= 23			

3.2.254. HOUR_TO_SEND

Tables	PRODUCTCRITERIA (IDCX)			
Description	Hour at which the product is to be sent.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)	hours	NOT ALLOWED	i2	Y
Range	0 <= hours_to_send <= 23			

3.2.255. HSCORE

Tables	EVSC_PROD (IDCX)			
Description	Score for the hydroacoustic event-screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	hscore > -999.0			

3.2.256. HSNR

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Horizontal signal-to-noise ratio. Ratio of hamp to the root-mean-square amplitude of the root of the sum of the squares of two horizontally oriented components filtered in a frequency band centred at cfreq Hz.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f10.2	Y
Range	hsnr >= 0.0			

3.2.257. HTOV

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Horizontal-to-vertical power ratio. One-half times the square of the ratio of hamp to vamp.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f10.2	Y
Range	htov >= 0.0			

3.2.258. HVRAT

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Horizontal-to-vertical power ratio defined as (C3 + C2)/2C1 where C1, C2, and C3 are the diagonal elements of the covariance matrix (C1 corresponds to the vertical component). This is an S-phase-type value that is calculated at the time of the maximum 3-component amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	hvrat >= 0.0			

3.2.259. HVRATP

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Horizontal-to-vertical power ratio defined as (C3 + C2)/2C1 where C1, C2, and C3 are the diagonal elements of the covariance matrix (C1 corresponds to the vertical component). This is a P-phase-type value that is calculated at the time of maximum rectilinearity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	hvratp >= 0.0			

3.2.260. HYD_GRP_PHASE

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Phase name resulting from hydro group processing by the application HASE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a4	Y
Range	Any valid hydro or seismic phase name. currently hyd_grp_phase IN {H, T, N, P}			

3.2.261. HYDRO_CP_THRESH

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Threshold of the hydroacoustic cepstral peak screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re microPascals	-999.0	f7.2	Y
Range	0.0 < hydro_cp_thresh < 999.0			

3.2.262. HYDRO_ID

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB), HYDRO_ASSOC (IDCX), HYDRO_ASSOC (LEB), HYDRO_ASSOC (REB)			
Description	Identifier which is the primary key in the hydro_arr_group table and the foreign key in hydro_assoc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	hydro_id > 0			

3.2.263. HYDRO_TE_THRESH

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Threshold of the hydroacoustic total energy screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re microPascals	-999.0	f7.2	Y
Range	0.0 < hydro_te_thresh < 999.0			

3.2.264. ICELL

Tables	DSEISGRID (STATIC), SEISGRID (STATIC)			
Description	Grid cell index.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	icell > 0			

3.2.265. ID

Tables	GA_TAG (SEL1)			
Description	Arrival or origin identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	id > 0			

3.2.266. IDATE

Tables	MSGDISC (IDCX)			
Description	Initial Julian date message that was received.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	any valid Julian date			

3.2.267. IMB

Tables	STASSOC (IDCX)			
Description	Initial body wave magnitude. This column is an analysts estimate of the body wave magnitude using data from a single station (see iml, ims, magnitude, magtype, mb, ml, and ms).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	imb > -2.0			

3.2.268. IMETHOD

Tables	MSGDISC (IDCX)			
Description	Method of transmission for a message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	imethod IN {email, ftp}			

3.2.269. IML

Tables	STASSOC (IDCX)			
Description	Initial local magnitude. This column is an analysts estimate of the local using data from a single station (see imb, ims, magnitude, magtype, mb, ml, and ms).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	iml > -2.0			

3.2.270. IMS

Tables	STASSOC (IDCX)			
Description	Initial surface wave magnitude. The value in this column is an analysts estimate of surface wave magnitude using data from a single station (see iml, imb, magnitude, magtype, mb, ml, and ms).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	ims > -2.0			

3.2.271. INANG1

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Apparent incidence angle (measured from the vertical) of the eigenvector (e1) associated with the largest eigenvalue (l1). This column is also called the long-axis incidence angle or the emergence angle. This P-type value is calculated at the time of maximum rectilinearity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= inang1 < 90.0			

3.2.272. INANG3

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Apparent incidence angle (measured from the vertical) of the eigenvector (e3) associated with the smallest eigenvalue (l3). This column is also called the short-axis incidence angle. This S-type value is measured at the time of the maximum 3-component amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f7.2	Y
Range	0.0 <= inang3 < 90.0			

3.2.273. INARRIVAL

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Flag to indicate whether or not amp is the same as it is in the Arrival table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		NOT ALLOWED	a1	Y
Range	inarrival IN {y, n}			

3.2.274. INID

Tables	INSTRUMENT (STATIC), SENSOR (STATIC)			
Description	Instrument identifier. This column is a unique key to the instrument table and inid provides the only link between sensor and instrument.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED -1 for sensor.	i8	N
Range	inid > 0			

3.2.275. INITIAL_TIME

Tables	PMCC_FEATURES (IDCX)			
Description	Time of the first detection pixel in the PMCC family (epochal)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds		f17.5	Y
Range				

3.2.276. INITIALDATE

Tables	SUBS (IDCX)			
Description	Initial date of a subscription.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.277. INSNAME

Tables	INSTRUMENT (STATIC)			
Description	Instrument name. This character string contains the name of the instrument.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)		- (hyphen)	a50	Y
Range	any free-format string up to 50 characters			

3.2.278. INSTANT

Tables	SENSOR (STATIC)			
Description	Snapshot indicator. When instant = y, the snapshot was taken at the time of a discrete procedural change, such as an adjustment of the instrument gain; when instant = n, the snapshot is of a continuously changing process, such as calibration drift. This value is important for tracking time corrections and calibrations. The default value is y.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		NOT ALLOWED	a1	N
Range	instant IN {y, n}			

3.2.279. INSTYPE

Tables	DUPWFDISC (IDCX), INSTRUMENT (STATIC), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Instrument type. This character string is used to indicate the instrument type. Some examples are: W200P, A100L2, MB2000, PTB101 and CMG3ES.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	any alphanumic string up to the character field width			

3.2.280. INTERN_CHAN

Tables	CHANNAME (STATIC)			
Description	The name of the channel as chosen by the data consumer. The translation is from extern_chan to intern_chan.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	any lower-case string up to the character field width			

3.2.281. INTERN_STA

Tables	CHANNAME (STATIC)			
Description	The site name used by cd2w. Links to the sta column in the sensor and wfdisc tables. If the waveSaveFormat parameter is SAVE_SEPARATE, then this name is also used in the waveform file names (e.g. I26H3.BDF.20080223.20-24.w).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case string up the character field width			

3.2.282. INTID

Tables	MSGDISC (IDCX), SUBS (IDCX)			
Description	Either the locally generated msgid of an earlier table entry that evoked the creation of this table entry or the reqid from the request table of an internally generated request			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	-1	i10	Y
Range	intid > 0			

3.2.283. INTIDTYPE

Tables	MSGDISC (IDCX)			
Description	Identifier type for the intid (usually msgid,but can be reqid, delivid, wmreq_msgid). Set to - (hyphen) for incoming radionuclide data messages and AutoDRM requests.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	intidtype IN { msgid, reqid, delivid, wmreq_msgid }			

3.2.284. INTIDTYPE

Tables	SUBS (IDCX)			
Description	Message identification number (msgid), linking back to the entry in the msgdisc table that initiated the subscription request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	intidtype IN { msgid }			

3.2.285. INTVLID

Tables	INTERVAL (IDCX), INTERVAL (MIGRATE)			
Description	Interval identifier. Each interval is assigned a unique positive integer that identifies it in the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	intvlid > 0			

3.2.286. INWFACTIVITY

Tables	CHAN_GROUPS (IDCX)			
Description	This column is not used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		-1	i1	Y
Range				

3.2.287. IPHASE

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Reported phase. This eight-character column holds the name initially given to a seismic phase. Standard seismological labels for the types of signals (or phases) are used (for example, P, PKP, PcP, pP). Both upper- and lower-case letters are available and should be used when appropriate, for example, pP or PcP (see phase).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any string up to eight characters that conforms to seismological practice			

3.2.288. IS_CODA

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify if phase is a coda phase (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_coda IN { y, n }			

3.2.289. IS_DEPTH_PHASE

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify if phase is a depth phase (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_depth_phase IN { y, n }			

3.2.290. IS_DEPTH_SENSITIVE

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify if phase is depth sensitive (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_depth_sensitive IN { y, n }			

3.2.291. IS_SELECTED

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify if phase is selected (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_selected IN { y, n }			

3.2.292. IS_TIMEAVAIL

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify whether travel time information is available (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_timeavail IN { y, n }			

3.2.293. IS_UNIQUE

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Flag to specify if phase is a coda phase (y) or not (n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	is_unique IN { y, n }			

3.2.294. ISRC

Tables	MSGDISC (IDCX)			
Description	Initial source of message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	Y
Range	any string up to 64 characters			

3.2.295. ITIME

Tables	MSGDEST (IDCX)			
Description	Initial time when message was inserted into the msgdest table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.296. ITIME

Tables	MSGDISC (IDCX)			
Description	Initial time when message was inserted into the msgdisc table by the MessageReceive application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.297. JDATE

Tables	ALLOCATE_HOUR (LEB)			
Description	Julian date; date of an arrival, origin, seismic recording, and so on. The same information is available in epoch time, but the Julian date format is more convenient for many types of searches. Dates B.C. are negative. The year will never equal 0000, and the day will never equal 000. Where only the year is known, the day of the year is 001; where only year and month are known, the day of year is the first day of the month. Only the year is negated for B.C., so 1 January of 10 B.C. is -0010001 (see time). A jdate begins at midnight and ends just before midnight the following day. This usage of jdate is distinct from the use of Julian date in other fields such as Astronomy. The jdate must be consistent with the time in the same record (if specified).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	integer	-1	i8	N
Range	Julian dates are of the form yyyyddd			

3.2.298. JDATE

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), DERVDISC (IDCX), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), DUPWFDISC (IDCX), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), SENSOR (STATIC), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Julian date; date of an arrival, origin, seismic recording, and so on. The same information is available in epoch time, but the Julian date format is more convenient for many types of searches. Dates B.C. are negative. The year will never equal 0000, and the day will never equal 000. Where only the year is known, the day of the year is 001; where only year and month are known, the day of year is the first day of the month. Only the year is negated for B.C., so 1 January of 10 B.C. is -0010001 (see time). A jdate begins at midnight and ends just before midnight the following day. This usage of jdate is distinct from the use of Julian date in other fields such as Astronomy. The jdate must be consistent with the time in the same record (if specified).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	integer	-1	i8	Y
Range	Julian dates are of the form yyyyddd			

3.2.299. KEYNAME

Tables	LASTID (IDCX), LASTID (SEGMENT), PROBLASTID (IDCX), RMS_LASTID (IDCX)			
Description	Identifier type. This column contains the actual name of a key whose last assigned numeric value is saved in keyvalue.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		NOT ALLOWED	a15	N
Range	keyname IN {arid, chanid, commid, evid, inid, orid, stassid, wfid, dataid, prodid, subsid, and so on}			

3.2.300. KEYVALUE

Tables	LASTID (IDCX), LASTID (SEGMENT), PROBLASTID (IDCX), RMS_LASTID (IDCX)			
Description	Current identifier value. This column maintains the last assigned value (a positive integer) of the counter for the specified keyname. The keyvalue is the last counter value used for the column keyname. Key values are maintained in the database to ensure uniqueness.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	keyvalue > 0			

3.2.301. KURTOSIS

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Kurtosis of the estimated signal energy between onset_time and termination_time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-9999999999999	f9.4	Y
Range	-10000000.0 < kurtosis< 10000000.0			

3.2.302. LABEL

Tables	MAPDISC (MAP)			
Description	Header for Map listing. A label, such as world, categorizes each Map. Label is used to build a sorted list of maps in the Map program.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(65)		- (hyphen)	a65	Y
Range	any string up to 65 characters			

3.2.303. LAST_MIG_DATE

Tables	MIG_DATE (MIGRATE)			
Description	Last date of database migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.304. LASTFAILEDTIME

Tables	FTPFAILED (IDCX)			
Description	Time of most recent attempt to retrieve data message by FTP.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)		NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.305. LAT

Tables	MAPPOINT (MAP), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Geographic latitude. Locations north of the equator have positive latitudes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	N
Range	-90.0 <= lat <= 90.0			

3.2.306. LAT

Tables	SITE (STATIC), STASSOC (IDCX)			
Description	Geographic latitude. Locations north of the equator have positive latitudes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	-90.0 <= lat <= 90.0			

3.2.307. LAT1

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Southern-most latitude of the first grid cell in Seisgrid (Dseisgrid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f9.4	Y
Range	-90.0 <= lat1 <= 90.0			

3.2.308. LAT_HI

Tables	BREGION_DEF (STATIC)			
Description	Northern latitude boundary of a Scanner target area/region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f9.4	Y
Range	-90 < lat_hi < 90			

3.2.309. LAT_LO

Tables	BREGION_DEF (STATIC)			
Description	Southern latitude boundary of a Scanner target area/region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f9.4	Y
Range	-90 < lat_lo < 90			

3.2.310. LATMAJOR

Tables	MAPDISC (MAP)			
Description	Latitude interval for displaying major grid lines in the Map application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	0.0 < latmajor < 90.0			

3.2.311. LATMINOR

Tables	MAPDISC (MAP)			
Description	Latitude interval for displaying minor grid lines in the Map application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	0 < latminor < 90.0			

3.2.312. LATORIGRADIANS

Tables	MAPDISC (MAP)			
Description	Latitude origin radians. Coordinates in radians of the lower left corner in the Map application. The Map application uses this for mercator projections only.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	radians	-999	f9.4	Y
Range	-pi/2 < latorigradians < pi/2			

3.2.313. LDDATE

Tables	COLORDISC (MAP), DEFINE_PHASE_RESIDUAL (STATIC), MAPCOLOR_ (MAP), MAPDISC (MAP), MAPOVER (MAP), MAPPOINT (MAP), OVERLAYDISC (MAP), PHASE_DESCRIPTION (STATIC), PHASE_WEIGHT_EVENT_DEFINE (STATIC), STA_RELY (STATIC)			
Description	Load date. The date and time the record was inserted into the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	N
Range	any valid ORACLE date			

3.2.314. LDDATE

Tables	BULL_COMP (IDCX)			
Description	Date of the bulletin comparison			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.315. LDDATE

Tables	AFFILIATION (STATIC), ALLOCATE_HOUR (LEB), ALLOW_RESID (LEB), AMP3C (IDCX), AMP3C (LEB), AMP3C (REB), AMPDESCRIPT (IDCX), AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), APMA (IDCX), APMA (LEB), APMA (REB), ARCH_DATA_TYPE (IDCX), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), ATTENCOEF (STATIC), BREGION_DEF (STATIC), BREGION_TAB (STATIC), CEPPKS (REB), CHANNAME (STATIC), CHAN_GROUPS (IDCX), CLF (IDCX), COMPLEXITY (REB), DATAREADY (IDCX), DATAUSER (IDCX), DERVDISC (IDCX), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), DISCARD (LEB), DISCARD (REB), DSEISGRID (STATIC), DSEISINDEX (STATIC), DUPWFDISC (IDCX), EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3), EVENT_CONTROL (LEB), EVENT_CONTROL (REB), EVSC_HYDRO (IDCX), EVSC_PROD (IDCX), EVSC_REGIONAL (IDCX), FILEPRODUCT (IDCX), FPDESCRIPTION (IDCX), FRAMEPRODUCT (IDCX), FTPFAILED (IDCX), FTPLOGIN (IDCX), GREGION (STATIC), HISTORY (IDCX), HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB), HYDRO_ASSOC (IDCX), HYDRO_ASSOC (LEB), HYDRO_ASSOC (REB), HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB), INSTRUMENT (STATIC), INTERVAL (IDCX), INTERVAL (MIGRATE), LASTID (IDCX), LASTID (SEGMENT), MIG_DATE (MIGRATE), MSGAUX (IDCX), MSGDATATYPE (IDCX), MSGDEST (IDCX), MSGDISC (IDCX), NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), NETWORK (STATIC), ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), OUTAGE (IDCX), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), PARTICIPATION (STATIC), PMCC_FEATURES (IDCX), PROBLASTID (IDCX), PROBLEM (IDCX), PROBLEMLOG (IDCX), PROBLEMMAIL (IDCX), PRODTRACK (IDCX), PRODUCTCRITERIA (IDCX), PRODUCTTYPEEVSC (IDCX), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), REGCOEF (STATIC), REMARK (IDCX), REMARK (LEB), REMARK (REB), REMARK (SEL1), REMARK (SEL2), REMARK (SEL3), REMARK (STATIC), REQUEST (IDCX), REVAUDIT (LEB), RMS_LASTID (IDCX), SEISGRID (STATIC), SEISINDEX (STATIC), SEMAPHORE (IDCX), SENSOR (STATIC), SITE (STATIC), SITEAUX (STATIC), SITECHAN (STATIC), SITEPOLL (STATIC), SITE_ADDRESS (STATIC), SPLP (REB), SPVAR (REB), SREGION (STATIC), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3), STANET (STATIC), STASSOC (IDCX), SUBS (IDCX), SUBSUSER (IDCX), THIRDMOM (REB), TIMEFREQ (REB), TIMESTAMP (IDCX), WAVEINTERVAL (IDCX), WEIGHTS (STATIC), WFDISC (IDCX), WFDISC (SEGMENT), WFTAG (IDCX), WFTAG (SEGMENT), WFTAG (SEL1), WFTAG (SEL2), WFTAG (SEL3), XTAG (IDCX)
Description	Load date. The date and time the record was inserted into the database.

Storage type	Unit	NA value	External	Nullable
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.316. LENGTH

Tables	CLF (IDCX)			
Description	Length of CD protocol frame in bytes			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range				

3.2.317. LG_SNR

Tables	EVSC_REGIONAL (IDCX)			
Description	Signal-to-noise ratio of the Lg measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	lg_snr > 0.0			

3.2.318. LINENO

Tables	REMARK (IDCX), REMARK (LEB), REMARK (REB), REMARK (SEL1), REMARK (SEL2), REMARK (SEL3), REMARK (STATIC)			
Description	Line number. This integer is assigned as a sequence number for multiple line comments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	lineno > 0			

3.2.319. LOC_ALL_STAS

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that informs the location process whether or not it should use only stations with source-dependent corrections in event locations. If TRUE (1), use all stations in event location. If FALSE (0), only use phase data from stations possessing either an SSSC, SRST, or test-site correction. Any data without a valid correction will not be included in the final event location. Only meaningful if src_dpnt_corr is > 0. Default is TRUE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	loc_all_stas IN {0, 1}			

3.2.320. LOC_ALPHA_ONLY

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that restricts phase data to be used in event location to only those stations contained in the substation list. If FALSE (0), use all stations provided in the Site table. If TRUE (1), only "PRIMARY" station data are used to locate events. This is option desirable in cases where the station network has varying station qualities contributing to events. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	loc_alpha_only IN {0, 1}			

3.2.321. LOC_CONF

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Confidence level of location error ellipse used to assess whether the error ellipse was onshore, offshore or mixed (in other words, partially onshore and offshore).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0.0 < loc_conf < 1.0			

3.2.322. LOC_DIST_VARWGT

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that informs the location process if predefined distance variance weighting should be applied to the event location. The predefined weighting is a set of data variances as a function of distance. If FALSE (0) and both user_var_wgt and srst_var_wgt are also set to FALSE, then variances are determined by the deltim, delslo, and delaz from Arrival. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	loc_dist_varwgt IN {0, 1}			

3.2.323. LOC_SDV_MULT

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Large residual multiplier factor. This column is only meaningful when loc_sdv_screen is set to TRUE (1). If TRUE, all data with travel-time/azimuth/slowness residuals greater than this factor times its data variance (standard error) will be ignored during any given iteration of the location process. Default is 3.0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f5.2	Y
Range	loc_sdv_mult > 0.0			

3.2.324. LOC_SDV_SCREEN

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that tells the location process whether or not to ignore data with travel-time/azimuth/slowness residuals greater than loc_sdv_mult times its data standard error in determining an event location. If FALSE (0), include data regardless of its residuals, provided it meets other pertinent conditions. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	loc_sdv_screen IN {0, 1}			

3.2.325. LOC_SRC_DPNT_REG

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Source-dependent region identifier for event location. If source-dependent corrections are applied as part of event location process (src_dpnt_corr > 0), then loc_src_dpnt_reg indicates region name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any free-format string up to 15 characters			

3.2.326. LOCALITY

Tables	SITE_ADDRESS (STATIC)			
Description	Geographical location within a country.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)		- (hyphen)	a40	Y
Range	any string up to 40 characters			

3.2.327. LOCATION

Tables	STASSOC (IDCX)			
Description	Location description. This character string describes the location of an event identified from data recorded at a single station. An examples is Fiji-Tonga.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	any free-format string up to 32 characters			

3.2.328. LOGAT

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Log of amplitude divided by period. This measurement of signal size is often reported instead of the amplitude and period separately. This column is only filled if the separate measurements are not available.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	log (nanometers/seconds)	-999.0	f7.2	Y
Range	logat > 0.0			

3.2.329. LOGIN

Tables	PROBLEMMAIL (IDCX)			
Description	Login name of originator of log entry or a mail subscriber.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(33)		NOT ALLOWED	a33	N
Range	any valid string up to the field width that is a valid email address			

3.2.330. LOGIN

Tables	PROBLEM (IDCX), PROBLEMLOG (IDCX)			
Description	Login name of originator of log entry or a mail subscriber.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(33)		NOT ALLOWED	a33	Y
Range	any valid string up to the field width that is a valid email address			

3.2.331. LON

Tables	MAPPOINT (MAP), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	N
Range	-180.0 <= lon <= 180.0			

3.2.332. LON

Tables	SITE (STATIC), STASSOC (IDCX)			
Description	Geographic longitude. Longitudes are measured positive east of the Greenwich meridian.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	-180.0 <= lon <= 180.0			

3.2.333. LON1

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Western-most longitude of the first grid cell in Seisgrid (Dseisgrid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f9.4	Y
Range	-180.0 <= lon1 <= 180.0			

3.2.334. LON_HI

Tables	BREGION_DEF (STATIC)			
Description	Eastern longitude boundary of a Scanner target area/region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f9.4	Y
Range	-180 < lon_hi < 180			

3.2.335. LON_LO

Tables	BREGION_DEF (STATIC)			
Description	Western longitude boundary of a Scanner target area/region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f9.4	Y
Range	-180 < lon_lo < 180			

3.2.336. LONMAJOR

Tables	MAPDISC (MAP)			
Description	Longitude interval (in degrees) for displaying major grid lines in the Map application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	0 < lonmajor < 180.0			

3.2.337. LONMINOR

Tables	MAPDISC (MAP)			
Description	Longitude interval (in degrees) for displaying minor grid lines in the Map application.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	-180.0 < lonminor < 180.0			

3.2.338. LONORIGRADIANS

Tables	MAPDISC (MAP)			
Description	Longitude origin radians. Coordinates in radians of the lower left corner in the Map application. Map uses this for mercator projections only.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	radians	-999	f9.4	Y
Range	-p <= latorigradians <= p			

3.2.339. LOW_CUT

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Low-cut frequency of filter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz	-1.0	f9.4	Y
Range	low_cut > 0.0			

3.2.340. MAG_ALL_STAS

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that informs magnitude process whether or not it should only use amplitude information from stations with magnitude test-site corrections. If TRUE (1), use all amplitude information in event magnitudes. If FALSE (0), use only amplitude data from stations possessing a magnitude test-site correction; any data without a valid correction will not be included in the magnitude determination. Only meaningful if mag_test_site is not null or "-." Default is TRUE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	mag_all_stas IN {0, 1}			

3.2.341. MAG_ALPHA_ONLY

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that restricts amplitude data to be used in the magnitude determination to only those stations contained in the substation list. If FALSE (0), use all valid amplitudes. If TRUE (1), only "Primary seismic" station data are used for the magnitude calculation. This option is desirable in cases where the station network has varying station qualities contributing to the magnitude. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	mag_alpha_only IN {0, 1}			

3.2.342. MAG_SDV_MULT

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Magnitude large residual multiplier factor. This column is meaningful only when mag_sdv_screen is set to TRUE (1). If TRUE, an amplitude with magnitude residuals greater than this factor times its data variance (standard error) will be ignored by the magnitude process. Default is 3.0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f5.2	Y
Range	mag_sdv_mult > 0.0			

3.2.343. MAG_SDV_SCREEN

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Logical descriptor that tells magnitude process whether or not to ignore amplitude data with magnitude residuals greater than mag_sdv_mult times its data standard error in determining the given magnitude. If FALSE (0), include data regardless of its residuals, provided it meets other pertinent conditions. Default is FALSE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	mag_sdv_screen IN {0, 1}			

3.2.344. MAG_SRC_DPNT_REG

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Source-dependent region identifier for magnitude determination. If source-dependent corrections are applied as part of the event magnitude determination process, then mag_src_dpnt_reg indicates the region name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any free-format string up to 15 characters			

3.2.345. MAGDEF

Tables	STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude defining switch. A one-character flag indicating whether or not a station magnitude for a given stamag record was used in determining the network magnitude. This column is defining (magdef = d) if it is used in network magnitude calculation or nondefining (magdef = n) if it is not used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	magdef IN {d, n}			

3.2.346. MAGID

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3)			
Description	Network magnitude identifier. This value is assigned to identify a network magnitude in the netmag table. This column is required for every network magnitude. Origins are linked to their corresponding mb, Ms and ML magnitudes via the mbid, msid and mlid columns respectively.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	magid > 0			

3.2.347. MAGID

Tables	STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Station magnitude identifier. This value is assigned to identify a station magnitude in the stamag table. This column is required for every station magnitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	magid > 0			

3.2.348. MAGNITUDE

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude. This column gives the magnitude value of the type indicated in magtype. The value is derived in a variety of ways, which are not necessarily linked directly to an arrival (see imb, iml, ims, magtype, mb, ml, and ms).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	NOT ALLOWED -999.0 for netmag	f7.2	Y
Range	magnitude > -2.0			

3.2.349. MAGPREF_MB

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Mb magnitude type used for screening (see Netmag.magtype). Default is mb_ave.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	any mb magnitude type up to six characters			

3.2.350. MAGPREF_MS

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Ms magnitude type used for screening (see Netmag.magtype). Default is ms_ave.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	any Ms magnitude type up to six characters			

3.2.351. MAGRES

Tables	STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude residual. This column is the difference between the magnitude for a given stamag record and the network magnitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	-10.0 < magres < 10.0			

3.2.352. MAGTH

Tables	DSEISGRID (STATIC), SEISGRID (STATIC)			
Description	Magnitude threshold used to calculate the number of events per year in each grid cell.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	any valid magnitude value			

3.2.353. MAGTYPE

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Magnitude type, for example mb, Ms, ML			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		NOT ALLOWED	a4	Y
Range	any valid magnitude type up to the character field width			

3.2.354. MAGTYPE

Tables	DSEISGRID (STATIC), NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), SEISGRID (STATIC), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude type, for example mb, Ms, ML			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	any valid magnitude type up to the character field width			

3.2.355. MAPFILETYPE

Tables	MAPDISC (MAP)			
Description	Specifies how the Map program handles the referenced Map file. If mapfiletype = all, then the program reads the file in its entirety. If mapfiletype = blk, then the program reads only the blocks necessary for the display area.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		NOT ALLOWED	a4	N
Range	mapfiletype IN {all, blk}			

3.2.356. MAPID

Tables	MAPCOLOR (MAP), MAPDISC (MAP), MAPOVER (MAP)			
Description	Mapdisc identifier. Each mapdisc is assigned a unique positive integer that identifies it in a database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	mapid > 0			

3.2.357. MAPNAME

Tables	MAPDISC (MAP)			
Description	Name of the map. Each map in the Map application is assigned a name for identifying the map in a list of all maps.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	N
Range	any string up to 64 characters			

3.2.358. MAPTYPE

Tables	MAPDISC (MAP)			
Description	Type of map. A positive integer enumerator for identifying the output graphic type, either raster or vector (maptype = 1 for raster and maptype = 2 for vector).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	maptype IN {1, 2}			

3.2.359. MASK

Tables	CLF (IDCX)			
Description	Indicates which channels are present in the frame. 1101000 means that channels 0,1,2 and 4 were present in the frame. Please note that, unlike the mask column of the waveinterval table, this column contains only ones and zeros, never an x. The position in the mask corresponds to the position column in the channame table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	character string comprising entirely of 0 and 1 characters			

3.2.360. MASK

Tables	WAVEINTERVAL (IDCX)			
Description	Shows which channels were sent for this interval. 111xx00 indicated that the first three channels were present in at least one data frame, the last two channels sent no data and the middle two channels were not considered because their capability (see channame table) was not 1. The position in the mask corresponds to the position in the channame table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range	character string comprising 0, 1 or x characters			

3.2.361. MASKED

Tables	QCSTATS (IDCX)			
Description	Amount of data in the processing interval masked due to point-spikes, spikes, or constant value segments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	masked >= 0			

3.2.362. MAX_AZERR

Tables				
Description	Maximum azimuth error			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f8.3	Y
Range	0.0 <= max_azerr <= 360.0			

3.2.363. MAXDELTA

Tables	DEFINE_PHASE_RESIDUAL (STATIC), PHASE_DESCRIPTION (STATIC)			
Description	Maximum allowable distance (degrees)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f8.3	N
Range	maxdelta >= 0.0			

3.2.364. MAXDELTA

Tables	ALLOW_RESID (LEB)			
Description	Maximum station to event distance.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f8.3	Y
Range	maxdelta >= 0.0			

3.2.365. MAXDEP_ERR

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Maximum of depth_error product constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	999.0	f9.4	Y
Range	mindeperr < maxdep_err < 999.0			

3.2.366. MAXDEPTH

Tables	DEFINE_PHASE_RESIDUAL (STATIC), PHASE_DESCRIPTION (STATIC)			
Description	Maximum allowable depth (km)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	NOT ALLOWED	f9.4	N
Range	0 <= maxdepth <= 700			

3.2.367. MAXDEPTH

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Maximum depth value for a product constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	999.0	f9.4	Y
Range	mindepth < maxdepth < 999.0			

3.2.368. MAXESD

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Maximum distance between the event and a station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1	f6.2	Y
Range	minesd <= maxesd <= 180.0			

3.2.369. MAXFREQ

Tables	PMCC_FEATURES (IDCX)			
Description	Maximum frequency of the detection pixels in the PMCC family (Hz)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz		f9.4	Y
Range				

3.2.370. MAXLAT

Tables	PRODUCTTYPEORIGIN (IDCX), PRODUCTTYPESTA (IDCX)			
Description	Maximum latitude. Locations north of the equator have positive latitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	999.0	f9.4	Y
Range	-90.0 <= maxlat <= 90.0			

3.2.371. MAXLON

Tables	PRODUCTTYPEORIGIN (IDCX), PRODUCTTYPESTA (IDCX)			
Description	Maximum longitude. Locations east of the Greenwich Meridian have positive longitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	999.0	f9.4	Y
Range	-180.0 <= maxlon <= 180.0			

3.2.372. MAXMAG

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Maximum value of magnitude for a product constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	999.0	f7.2	Y
Range	minmag < maxmag < 999.0			

3.2.373. MAXMB_MS

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Maximum value of mb - Ms.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	999.0	f7.2	Y
Range	minmb_ms < maxmb_ms < 999.0			

3.2.374. MB

Tables	EVSC_PROD (IDCX), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Body wave magnitude, mb. (origin) This is the body wave magnitude of an event. The identifier mbid that points to magid in the Netmag table is associated with this column. The information in that record summarizes the method of analysis and data used (see imb, iml, ims, magnitude, magtype, ml, and ms). (evsc_prod) Body wave magnitude for event screening. The type of measurement is indicated by magtype_mb.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	mb > -2.0			

3.2.375. MB_ERR

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Uncertainty of single-station mb magnitude estimates, used in the computation of the confidence interval of the network estimate of mb minus Ms.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	0.0 < mb_err < 10.0			

3.2.376. MB_MAX_DIST

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Body wave magnitude (mb) station magnitudes at distances greater than mb_max_dist will not be used in network magnitude calculations.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	0.0 <= mb_max_dist <= 180.0			

3.2.377. MB_MIN_DIST

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Body wave magnitude (mb) station magnitudes at distances less than mb_min_dist will not be used in network magnitude calculations.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	0.0 <= mb_min_dist <= 180.0			

3.2.378. MBID

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Magnitude identifier for mb. This column stores the magid for a record in Netmag. Mbid is a foreign key joining origin to netmag where origin.mbid = netmag.magid (see magid, mlid, and msid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	mbid > 0			

3.2.379. MBMS

Tables	EVSC_PROD (IDCX)			
Description	Difference of body and surface wave magnitudes, mb minus Ms, including a slope term given by mbms_slope of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	mbms > -999.0			

3.2.380. MBMS_CONF

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Confidence level for the mb minus Ms screening criterion. This confidence level is for a one-sided confidence interval for mb minus Ms.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0.0 < mbms_conf < 1.0			

3.2.381. MBMS_SLOPE

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Slope term (A) for the mb minus Ms relation (Amb - Ms) to account for calibration of magnitude dependence of the screening criterion. The standard default value is 1.25. A typical range of reasonable values is from +1.0 to +2.0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0.0 < mbms_slope < 999.0			

3.2.382. MBMS_THRESH

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Threshold for the mb minus Ms screening criterion. Events with one-sided confidence intervals for mb minus Ms (Amb - Ms, including the slope term) less than this threshold are screened out at the confidence level given by mbms_conf. Typical values of this threshold range from +1.0 to +4.0, depending on the slope term given by mbms_slope.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	0.0 < mbms_thresh < 999.0			

3.2.383. MBMSERR

Tables	EVSC_PROD (IDCX)			
Description	Error of mb minus Ms. This is the size of the one-sided confidence interval used for the mb minus Ms screening criterion for a confidence level given by mbms_conf of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	mbmserr > -999.0			

3.2.384. MEAN_ARRIVAL_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Mean arrival time of the estimated signal energy, in epoch time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.385. MERGE_ADJACENT

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Merge flag. If y, Archive should merge adjacent rows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	merge_adjacent IN {y, n}			

3.2.386. METHOD

Tables	DERVDISC (IDCX)			
Description	Method or Application associated to the dervdisc entry.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(17)		- (hyphen)	a17	Y
Range	any string up to the character field width			

3.2.387. MFOFF

Tables	MSGDISC (IDCX)			
Description	Offset in bytes to beginning of message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	-1	i10	Y
Range	mfoff > 0			

3.2.388. MIN_AZERR

Tables				
Description	Minimum azimuth error			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	degrees		f8.3	Y
Range	0.0 <= min_azerr <= 360.0			

3.2.389. MIN_DP_SNR_PP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum pP depth phase signal-to-noise ratio required for depth phase analysis.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0 < min_dp_snr_pp < 999			

3.2.390. MIN_DP_SNR_SP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum sP depth phase signal-to-noise ratio required for depth phase analysis.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0 < min_dp_snr_sp < 999			

3.2.391. MIN_DT_PP

Tables	EVSC_PROD (IDCX)			
Description	PP-P travel-time difference at nearest station beyond 25 deg.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	0 < min_dt_pp < 999			

3.2.392. MIN_DT_SP

Tables	EVSC_PROD (IDCX)			
Description	SP-P travel-time difference at nearest station beyond 25 deg.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	0 < min_dt_sp < 999			

3.2.393. MIN_MB

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum mb magnitude for application of event-screening criteria.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	min_mb > -999.0			

3.2.394. MIN_MOVEOUT_PP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum (pP-P) travel time moveout required for the depth screening criterion to be applied to depth-phase solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	-999.0 < min_moveout_pp < 999.0			

3.2.395. MIN_MOVEOUT_SP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum (sP-P) travel time moveout required for the depth screening criterion to be applied to depth-phase solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	-999.0 < min_moveout_sp < 999.0			

3.2.396. MIN_NDEF

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum number of defining phases required for the event-screening criteria to be applied to a seismic-acoustic event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	min_ndef > 0			

3.2.397. MIN_NDP_PP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum number of pP depth phases required for the depth screening criterion to be applied to depth-phase solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	min_ndp_pp > 0			

3.2.398. MIN_NDP_SP

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum number of sP depth phases required for the depth screening criterion to be applied to depth-phase solutions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	min_ndp_sp > 0			

3.2.399. MIN_NSTA_MS

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum number of stations required to contribute to the network Ms estimate for the mb minus Ms screening criterion to be applied.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	0 < min_nsta_ms < 1000			

3.2.400. MIN_WDEPTH

Tables	EVSC_PROD (IDCX)			
Description	Minimum depth of water within the location error ellipse defined by smaj_sc, smin_sc, and strike.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	meters	-999.0	f7.2	Y
Range	min_wdepth > 0.0			

3.2.401. MIN_WDEPTH_THRESH

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Minimum water depth threshold for application of the hydroacoustic screening criteria.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	0.0 < min_wdepth_thresh < 10.0			

3.2.402. MINDELTA

Tables	DEFINE_PHASE_RESIDUAL (STATIC)			
Description	Minimum allowable distance (degrees)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees		f8.3	N
Range				

3.2.403. MINDELTA

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Minimum distance (degrees)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees		f8.3	N
Range				

3.2.404. MINDELTA

Tables	ALLOW_RESID (LEB)			
Description	Minimum station to event distance.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f8.3	N
Range	mindelta >= 0.0			

3.2.405. MINDEP_ERR

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Minimum value of depth_error constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	-999.0 < mindep_err < maxdep_err			

3.2.406. MINDEPTH

Tables	DEFINE_PHASE_RESIDUAL (STATIC), PHASE_DESCRIPTION (STATIC)			
Description	Minimum allowable depth (km)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	NOT ALLOWED	f9.4	N
Range	-999.0 < mindepth < maxdepth			

3.2.407. MINDEPTH

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Minimum depth value for a product constraint (km).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f9.4	Y
Range	-999.0 < mindepth < maxdepth			

3.2.408. MINESD

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Minimum distance between an event and stations.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1.0	f6.2	Y
Range	0.0 <= minesd <= maxesd			

3.2.409. MINFREQ

Tables	PMCC_FEATURES (IDCX)			
Description	Minimum frequency of the detection pixels in the PMCC family (Hz)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	Hertz		f9.4	Y
Range				

3.2.410. MINLAT

Tables	PRODUCTTYPEORIGIN (IDCX), PRODUCTTYPESTA (IDCX)			
Description	Minimum latitude. Locations north of the equator have positive latitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	-90.0 <= minlat <= 90.0			

3.2.411. MINLON

Tables	PRODUCTTYPEORIGIN (IDCX), PRODUCTTYPESTA (IDCX)			
Description	Minimum longitude defining a reference area. Locations east of the Greenwich Meridian have positive longitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f9.4	Y
Range	-180.0 <= minlon <= 180.0			

3.2.412. MINMAG

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Minimum value of the magnitude constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	-999.0 < minmag < maxmag			

3.2.413. MINMB_MS

Tables	PRODUCTTYPEORIGIN (IDCX)			
Description	Minimum value of mb - Ms product constraint.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	-999.0 < minmb_ms < maxmb_ms			

3.2.414. MISSING

Tables	QCSTATS (IDCX)			
Description	Amount of missing data in the interval, measured in seconds.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	missing < 9999999999.999			

3.2.415. ML

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Local magnitude (ML) of an event. The identifier mlid, which points to magid in the Netmag table, is associated with this column. The information in that record summarizes the method of analysis and the data used (see imb, iml, ims, magnitude, magtype, mb, and ms).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	ml > -2.0			

3.2.416. MLID

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Magnitude identifier for ml. This column stores the magid for a record in Netmag. Mlid is a foreign key joining origin to netmag, where table.mlid = table.magid (see magid, msid, and mbid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	mlid > 0			

3.2.417. MMODEL

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude model. This character string identifies the magnitude model employed for station (stamag) or overall network magnitude calculation (event_control). In stamag, mmodel is the unique magnitude model as extracted from the magnitude correction file. In event_control, mmodel indicates only whether or not mixed models were employed (mixed) or a unique magnitude model was used for all stations. In the latter case, it would be identical to stamag.mmodel.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any free-format string up to 15 characters			

3.2.418. MODAUTHOR

Tables	REQUEST (IDCX)			
Description	Author of last state change.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to 15 characters			

3.2.419. MODDATE

Tables	INTERVAL (IDCX), INTERVAL (MIGRATE)			
Description	Modification date. The date and time the record was last updated (state column) in the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.420. MODTIME

Tables	REQUEST (IDCX)			
Description	Modification time. The epoch time that the record was last updated in the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.421. MOVEOUT_PP

Tables	EVSC_PROD (IDCX)			
Description	Moveout of (pP-P) travel times for seismic stations between 25 and 100 degrees from an event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	moveout_pp > -999.0			

3.2.422. MOVEOUT_SP

Tables	EVSC_PROD (IDCX)			
Description	Moveout of (sP-P) travel times for seismic stations between 25 and 100 degrees from an event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	moveout_sp > -999.0			

3.2.423. MPDESCRIP

Tables	MAPPOINT (MAP)			
Description	Arbitrary string describing the referenced geographic point.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)		- (hyphen)	a50	Y
Range	any string up to 50 characters			

3.2.424. MPLABEL

Tables	MAPPOINT (MAP)			
Description	String used as a label for the geographic point described by a record in the mappoint table (for example, Paris, London and so on).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(65)		- (hyphen)	a65	Y
Range	any string up to 65 characters			

3.2.425. MPTYPE

Tables	MAPPOINT (MAP)			
Description	String specifying the type of geographic point described by a record in the mappoint table. Examples include cities, mines, and so on.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	any free-format (spaces allowed) string up to 20 characters			

3.2.426. MS

Tables	EVSC_PROD (IDCX), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Surface wave magnitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	Ms > -2.0			

3.2.427. MS_ERR

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Uncertainty of single-station Ms magnitude estimates used in the computation of the confidence interval of the network estimate of mb minus Ms.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	magnitude	-999.0	f7.2	Y
Range	0.0 < ms_err < 10.0			

3.2.428. MSCORE

Tables	EVSC_PROD (IDCX)			
Description	Score for the mb minus Ms event-screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	mscore > -999.0			

3.2.429. MSGDFORMAT

Tables	MSGDATATYPE (IDCX)			
Description	Format of the data, currently one of GSE2.0, IMS1.0 or IMS2.0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	any string up to the character field width			

3.2.430. MSGDFORMAT

Tables	FPDESCRIPTION (IDCX)			
Description	Format of the data, for example, binary, ps, IMS1.0, TXT, CD-1.1, CD-1.0, GSE2.0, IMS2.0).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	Y
Range	any string up to the character field width			

3.2.431. MSGDID

Tables	MSGDEST (IDCX)			
Description	Message destination identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	msgdid > 0			

3.2.432. MSGDTYPE

Tables	FPDESCRIPTION (IDCX), MSGDATATYPE (IDCX)			
Description	Data type of a data section within an AutoDRM message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	any string up to 16 characters that is a recognized data type			

3.2.433. MSGID

Tables	FTPFAILED (IDCX), MSGAUX (IDCX), MSGDATATYPE (IDCX), MSGDISC (IDCX), PRODTRACK (IDCX)			
Description	Message identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	msgid > 0			

3.2.434. MSGID

Tables	MSGDEST (IDCX)			
Description	The message identifier of the response message created by AutoDRM.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	msgid > 0			

3.2.435. MSGROW

Tables	MSGAUX (IDCX)			
Description	Number of lines in a message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)	lines	-1	i4	N
Range	msgrow > 0			

3.2.436. MSGSRC

Tables	MSGDISC (IDCX)			
Description	Source code from where the message was sent.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to 16 characters			

3.2.437. MSGTYPE

Tables	DATAUSER (IDCX)			
Description	Message type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	N
Range	any string up to 16 characters			

3.2.438. MSGTYPE

Tables	MSGDISC (IDCX)			
Description	Message type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to 16 characters			

3.2.439. MSGVER

Tables	MSGDISC (IDCX)			
Description	Message Subsystem version number.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any string up to eight characters			

3.2.440. MSID

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Magnitude identifier for ms. This column stores the magid for a record in Netmag. Msid is a foreign key joining origin to netmag, where table.msid = table.magid (see magid, mlid, and mbid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	msid > 0			

3.2.441. MSIZE

Tables	MSGDISC (IDCX)			
Description	Size of bytes of message or section of a message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	bytes	-1	i10	Y
Range	msize > 0			

3.2.442. MSIZE

Tables	MSGDATATYPE (IDCX)			
Description	Size of bytes of message or section of a message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	bytes	-1	i8	Y
Range	msize > 0			

3.2.443. MTYPE

Tables	AMPDESCRIPT (IDCX)			
Description	Measurement type. This column defines how the amplitude is measured in a given time window. The following values are allowed: peak (maximum amplitude), stav (maximum short-term average amplitude), rms (root-mean-squared amplitude), peak2tr (maximum peak-to-trough amplitude), and 1stpeak (first peak amplitude).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	mtype IN {peak, stav, rms, peak2tr, 1stpeak}			

3.2.444. NA_VALUE

Tables	NA_VALUE (IDCX)			
Description	Value to be inserted for a column when no other value is available.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)		NOT ALLOWED	a30	Y
Range	any valid string up to the character width			

3.2.445. NAME

Tables	INTERVAL (IDCX), INTERVAL (MIGRATE)			
Description	Name of the station or processing pipeline described by this row. Examples are sel1, sel2, sel3, ANALYSIS, RECALL, REB, TMPR, MIG, EVCH, EVSC, SEG and QTR.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	any string up to the character limit			

3.2.446. NAME

Tables	CHAN_GROUPS (IDCX), SITE_ADDRESS (STATIC)			
Description	Name of a constant, variable, or parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		- (hyphen)	a20	Y
Range	any string up to the character limit			

3.2.447. NAME

Tables	FPDESCRIPTION (IDCX)			
Description	Name of a constant, variable, or parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	Y
Range	any string up to the character limit			

3.2.448. NARR1

Tables	BULL_COMP (IDCX)			
Description	Number of associated arrivals for orid1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	narr1 > 0			

3.2.449. NARR2

Tables	BULL_COMP (IDCX)			
Description	Number of associated arrivals for orid2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	narr2 > 0			

3.2.450. NASS

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Number of associated arrivals. This column gives the number of arrivals associated with the origin.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		-1	i4	Y
Range	nass > 0			

3.2.451. NAVCEP

Tables	TIMEFREQ (REB)			
Description	Average maximum value in the two-dimensional cepstrum of the north component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	navcep >= 0			

3.2.452. NAVCOR

Tables	TIMEFREQ (REB)			
Description	Average autocorrelation along the time axis across all frequencies excluding randomized points of the north component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	navcor >= 0			

3.2.453. NAVPCT

Tables	TIMEFREQ (REB)			
Description	Average ratio of bad points to total of the north component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	0 <= navpct <= 1			

3.2.454. NCALIB

Tables	BEAMAUX (STATIC), INSTRUMENT (STATIC)			
Description	Nominal calibration factor. This conversion factor maps digital data to earth displacement. The factor holds true at the oscillation period specified by ncalper. A positive value means ground motion increasing in component direction (up, north, east) is indicated by increasing counts. A negative value means the opposite. Actual calibration for a particular recording is determined using the Wfdisc and Sensor tables (see calratio).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers per digital count	NOT ALLOWED	f16.6	Y
Range	any nonzero floating point number			

3.2.455. NCALPER

Tables	BEAMAUX (STATIC), INSTRUMENT (STATIC)			
Description	Calibration period. This column is the period for which ncalib is valid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	NOT ALLOWED	f16.6	Y
Range	ncalper > 0.0			

3.2.456. NCONSTSEG

Tables	QCSTATS (IDCX)			
Description	Number of constant valued segments in the detection processing interval.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nconstseg >= 0			

3.2.457. NDEF

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	For a given origin, this is the number of time-defining phases that contributed to the location of the origin. A time-defining phase is a phase whose time is used as a constraint in the location.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	Y
Range	0 < ndef <= nass			

3.2.458. NDEF1

Tables	BULL_COMP (IDCX)			
Description	Number of time-defining phases for orid1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	ndef1 >= 0			

3.2.459. NDEF1ARR2

Tables	BULL_COMP (IDCX)			
Description	Number of defining arrivals for orid1 that are arrivals (either defining or non-defining) for orid2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	ndef1arr2 >= 0			

3.2.460. NDEF2

Tables	BULL_COMP (IDCX)			
Description	Number of time-defining phases for orid2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	ndef2 >= 0			

3.2.461. NDEF2ARR1

Tables	BULL_COMP (IDCX)			
Description	Number of defining arrivals for orid2 that are arrivals (either defining or non-defining) for orid1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i8	Y
Range	ndef2arr1 >= 0			

3.2.462. NDP

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Number of depth phases. This column gives the number of depth phases used in calculating depth/depdp (see depdp).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		-1	i4	Y
Range	ndp >= 0			

3.2.463. NDP_SNR_PP

Tables	EVSC_PROD (IDCX)			
Description	Number of pP depth phases meeting the snr criterion defined by min_dp_snr_pp of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	ndp_snr_pp > -1			

3.2.464. NDP_SNR_SP

Tables	EVSC_PROD (IDCX)			
Description	Number of sP depth phases meeting the snr criterion defined by min_dp_snr_sp of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	ndp_snr_sp > -1			

3.2.465. NET

Tables	SITEPOLL (STATIC)			
Description	Unique network identifier. This character string is the name of a seismic network. Examples include YKA, I02AR, H01W2, SADO, CUR_IDC and IMS_PRI.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED - (hyphen) for netmag	a6	N
Range	any string up to the character field width			

3.2.466. NET

Tables	AFFILIATION (STATIC), NETWORK (STATIC), STANET (STATIC), WEIGHTS (STATIC)			
Description	Unique network identifier. This character string is the name of a seismic network. Examples include YKA, I02AR, H01W2, SADO, CUR_IDC and IMS_PRI.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED - (hyphen) for netmag	a8	N
Range	any string up to the character field width			

3.2.467. NET

Tables	DERVDISC (IDCX)			
Description	Infrasound network name (collection of stations)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED - (hyphen) for netmag	a8	Y
Range	any string up to the character field width			

3.2.468. NET

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB), PARTICIPATION (STATIC)			
Description	Unique network identifier. This character string is the name of a seismic network. Examples include YKA, I02AR, H01W2, SADO, CUR_IDC and IMS_PRI.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED - (hyphen) for netmag	a8	Y
Range	any string up to the character field width			

3.2.469. NET

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3)			
Description	Unique network identifier. This character string is the name of a seismic network. One example is WWSSN.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED - (hyphen) for netmag	a8	Y
Range	any string up to eight characters			

3.2.470. NETNAME

Tables	NETWORK (STATIC)			
Description	Network name. String containing the name of a network.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(80)		- (hyphen)	a80	Y
Range	any string up to 80 characters			

3.2.471. NETTYPE

Tables	NETWORK (STATIC)			
Description	Network type. This four-character string specifies the type of network (ar = array, lo = local area, ww = world-wide) for the given value of net.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	any lower-case string up to four characters			

3.2.472. NEVYR

Tables	DSEISGRID (STATIC), SEISGRID (STATIC)			
Description	Average number of events per year with magnitude above magth whose location is within the grid cell defined by icell.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f9.2	Y
Range	nevyr >= 0			

3.2.473. NHYDARR

Tables	HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Number of arrivals in the group.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		-1	i4	Y
Range	nhydarr <= number of stations in the group			

3.2.474. NLAT

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Number of latitudes in Seisgrid (Dseisgrid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	Y
Range	nlat > 0.0			

3.2.475. NLON

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Number of longitudes in Seisgrid (Dseisgrid).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	Y
Range	nlon > 0.0			

3.2.476. NMATCH

Tables	BULL_COMP (IDCX)			
Description	Number of matching arrivals (defining/non-defining)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nmatch >= 0			

3.2.477. NOIS

Tables	SITEAUX (STATIC)			
Description	Nominal background seismic noise level.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-1.0	f10.1	Y
Range	nois >= 0.0			

3.2.478. NOISE_HIGH_BAND

Tables	EVSC_HYDRO (IDCX)			
Description	Hydroacoustic noise level in the high-frequency band (32-64 Hz) from table amplitude for a given orid/sta pair.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re mPa	-1.0	f7.2	Y
Range	noise_high_band > 0.0			

3.2.479. NOISSD

Tables	SITEAUX (STATIC)			
Description	Standard deviation of the log noise amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f5.2	Y
Range	noissd > 0.0			

3.2.480. NOTE_MISSING_DATA

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Missing data flag. If y, there are missing data for the datatype indicated in the arch_data_type table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	note_missing_data IN {y, n}			

3.2.481. NSAMP

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Number of samples in the waveform segment. This must be greater than one, otherwise the time and endtime will be equal and the time interval will be zero.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	Y
Range	nsamp > 1			

3.2.482. NSEG

Tables	QCSTATS (IDCX)			
Description	Number of masked segments in the detection processing interval.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nseg >= 0			

3.2.483. NSTA

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3)			
Description	Number of stations contributing to the network magnitude estimate.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nsta > -1			

3.2.484. NSTA_MB

Tables	EVSC_PROD (IDCX)			
Description	Number of stations contributing to the mb estimate used in event screening.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nsta_mb > -1			

3.2.485. NSTA_MS

Tables	EVSC_PROD (IDCX)			
Description	Number of stations contributing to the Ms estimate used for event screening.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	nsta_ms > -1			

3.2.486. NUM_CROSS

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Number of times that the estimated signal pressure squared crosses noise_onset_thresh between onset_time and termination_time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	num_cross > 0			

3.2.487. NUM_DEFINING

Tables	PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Number of defining phases			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			i8	N
Range				

3.2.488. NUMFAILEDATTEMPT

Tables	FTPFAILED (IDCX)			
Description	Number of failed attempts to retrieve message via FTP.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		0	i4	Y
Range	numfailedattempt > 0			

3.2.489. OBJTYPE

Tables	GA_TAG (SEL1)			
Description	Defines the id as either an arid (a) or an orid (o).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		NOT ALLOWED	a1	N
Range	objtype IN {a, o}			

3.2.490. OBS_TYPE

Tables	PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Observation type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	N
Range	any string up to (16, 24) characters that is a valid user name			

3.2.491. OBSOLETE

Tables	FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX)			
Description	Flag to indicate if the data in the fileproduct file are obsolete. 0 indicates that the data are not obsolete, and 1 indicates that the data are obsolete.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(1,0)		NOT ALLOWED	i1	Y
Range	obsolete IN {0, 1}			

3.2.492. OFFDATE

Tables	SUBS (IDCX)			
Description	Indicates the last date at which the subscription was active. For currently active subscriptions, this is set to 01-Jan-4700. Unlike other uses of ondate in the IDC Database Schema, the column accepts any valid ORACLE date.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	01 Jan 4700	a21	Y
Range	any valid ORACLE date			

3.2.493. OFFDATE

Tables	ARCH_DATA_TYPE (IDCX), CHAN_GROUPS (IDCX), REGCOEF (STATIC), SITE (STATIC), SITECHAN (STATIC), WEIGHTS (STATIC)			
Description	Turn off date. This column is the date after which the archive specifications, regional coefficient, station, sensor, or subscription indicated was no longer applicable, turned off, dismantled, or moved (see ondate).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	integer	-1	i8	Y
Range	Julian date of the form yyyyddd			

3.2.494. ONDATE

Tables	SUBS (IDCX)			
Description	Indicates the first date at which the subscription became active. Unlike other uses of ondate in the IDC Database Schema, the column accepts any valid ORACLE date.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

3.2.495. ONDATE

Tables	SITE (STATIC), SITECHAN (STATIC)			
Description	Turn on date. This column is the date on which the archive specifications, regional coefficient, station, sensor, or subscription indicated became applicable or began operating. Offdate and ondate are not intended to accommodate temporary downtimes, but rather to indicate the time period for which the columns of the station (lat, lon, elev) are valid for the given station code. Stations are often moved, but with the station code remaining unchanged.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	integer	NOT ALLOWED	i8	N
Range	Julian date of the form yyyyddd			

3.2.496. ONDATE

Tables	ARCH_DATA_TYPE (IDCX), CHAN_GROUPS (IDCX), REGCOEF (STATIC), WEIGHTS (STATIC)			
Description	Turn on date. This column is the date on which the archive specifications, regional coefficient, station, sensor, or subscription indicated became applicable or began operating. Offdate and ondate are not intended to accommodate temporary downtimes, but rather to indicate the time period for which the columns of the station (lat, lon, elev) are valid for the given station code. Stations are often moved, but with the station code remaining unchanged.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	integer	NOT ALLOWED	i8	Y
Range	Julian date of the form yyyyddd			

3.2.497. ONSET_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Estimated onset time of signal.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.498. ORDERBY

Tables	DSEISINDEX (STATIC), SEISINDEX (STATIC)			
Description	Grid order. The seismic grid can either be ordered by latitude or by longitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	orderby IN {lat, lon}			

3.2.499. ORID

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), CEPPKS (REB), COMPLEXITY (REB), EVENT_CONTROL (LEB), EVENT_CONTROL (REB), EVSC_PROD (IDCX), NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), SPLP (REB), TIMEFREQ (REB)			
Description	Origin identifier that relates to a record in the origin table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	NOT ALLOWED	i10	N
Range	orid > 0			

3.2.500. ORID

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3)			
Description	Unique origin identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	NOT ALLOWED	i10	N
Range	orid > 0			

3.2.501. ORID

Tables	EVSC_HYDRO (IDCX), EVSC_REGIONAL (IDCX), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), REQUEST (IDCX), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Origin identifier that relates to a record in the origin table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	NOT ALLOWED	i10	Y
Range	orid > 0			

3.2.502. ORID1

Tables	BULL_COMP (IDCX)			
Description	Origin identifier from bulletin 1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	orid1 > 0			

3.2.503. ORID2

Tables	BULL_COMP (IDCX)			
Description	Origin identifier from bulletin 2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	orid1 > 0			

3.2.504. OTGID

Tables	OUTAGE (IDCX)			
Description	Outage identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	otgid > 0			

3.2.505. OVERLAYID

Tables	MAPOVER (MAP), OVERLAYDISC (MAP)			
Description	Overlay identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	overlayid > 0			

3.2.506. OVERLAYNAME

Tables	OVERLAYDISC (MAP)			
Description	Name of the map overlay.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	N
Range	any free format character string up to 64 characters			

3.2.507. PARID

Tables	PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3)			
Description	Predicted arrival identifier. Every event-based parrival measure is assigned a unique positive integer that identifies it in the database. If an associated amplitude record exists, then parid links it to parrival.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	NOT ALLOWED	i10	N
Range	parid > 0			

3.2.508. PARID

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Predicted arrival identifier. Every event-based parrival measure is assigned a unique positive integer that identifies it in the database. If an associated amplitude record exists, then parid links it to parrival.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	-1	i10	Y
Range	parid >= -1			

3.2.509. PASSWORD

Tables	FTPLOGIN (IDCX)			
Description	Password for remote FTP site for pushing data messages from PIDC.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	any string up to 16 characters			

3.2.510. PCODE

Tables	CLF (IDCX)			
Description	The parsing code of the frame.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

3.2.511. PCTOFFSH

Tables	EVSC_PROD (IDCX)			
Description	Percentage of location error ellipse that is determined to be offshore.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0.0 <= pctoffsh < 100.0			

3.2.512. PEAK_LEVEL

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Pressure of largest absolute signal value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re mPa	-1.0	f9.4	Y
Range	peak_level >= 0.0			

3.2.513. PEAK_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Epoch time of largest absolute signal value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.514. PER

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Measured period at the time of the amplitude measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f7.2	Y
Range	per > 0.0			

3.2.515. PER_HI

Tables	BREGION_TAB (STATIC)			
Description	Maximum period value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	seconds	-1	f7.2	Y
Range	per_hi > 0			

3.2.516. PER_LO

Tables	BREGION_TAB (STATIC)			
Description	Minimum period value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	seconds	-1	f7.2	Y
Range	per_lo > 0			

3.2.517. PERCENTCHANS

Tables	WAVEINTERVAL (IDCX)			
Description	Percentage of available channels for this interval			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	percent		f8.3	Y
Range	0 <= percentchans <= 100			

3.2.518. PERCENTDATA

Tables	WAVEINTERVAL (IDCX)			
Description	The percentage of data received (for all channels).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	percent		f8.3	Y
Range	0 <= percentdata <= 100			

3.2.519. PERCENTTIMELY

Tables	WAVEINTERVAL (IDCX)			
Description	100 percent means that 10 minutes of data were received within 5 minutes of real time. This value can never be higher than Percentdata.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	Y
Range				

3.2.520. PERCENTUSABLE

Tables	WAVEINTERVAL (IDCX)			
Description	The percentage of data that can be usefully processed by subsequent applications.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	percent		f8.3	Y
Range	0 <= percentusable <= 100			

3.2.521. PHASE

Tables	COMPLEXITY (REB)			
Description	Phase type. The identity of a phase that has been associated to an arrival. Standard labels for phases are used (for example, P, PKP, PcP, pP, and so on). Both upper- and lower-case letters are available and should be used when appropriate; for example, pP or PcP.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen) if this column does not apply to seismic phases	a6	N
Range	any string up to the character field width that conforms to scientific practice			

3.2.522. PHASE

Tables	ALLOW_RESID (LEB), DEFINE_PHASE_RESIDUAL (STATIC), PHASE_DESCRIPTION (STATIC), WEIGHTS (STATIC)			
Description	Phase type. The identity of a phase that has been associated to an arrival. Standard labels for phases are used (for example, P, PKP, PcP, pP, and so on). Both upper- and lower-case letters are available and should be used when appropriate; for example, pP or PcP.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen) if this column does not apply to seismic phases	a8	N
Range	any string up to the character field width that conforms to scientific practice			

3.2.523. PHASE

Tables	APMA (IDCX), APMA (LEB), APMA (REB), ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Phase type. The identity of a phase that has been associated to an arrival. Standard labels for phases are used (for example, P, PKP, PcP, pP, and so on). Both upper- and lower-case letters are available and should be used when appropriate; for example, pP or PcP.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen) if this column does not apply to seismic phases	a8	Y
Range	any string up to the character field width that conforms to scientific practice			

3.2.524. PHASE_TYPE

Tables	PHASE_DESCRIPTION (STATIC), PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Phase type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	N
Range	any valid string up to 24 characters			

3.2.525. PID

Tables	SEMAPHORE (IDCX)			
Description	Process id of the ParseData handling the station			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	0 < pid < system-dependent pid limit			

3.2.526. PID

Tables	HISTORY (IDCX)			
Description	Process identifier (pid) of the cd2w instance that inserted or last updated this row			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(6,0)		NOT ALLOWED	i6	Y
Range	0 < pid < system-dependent pid limit			

3.2.527. PKAMP

Tables	CEPPKS (REB)			
Description	Amplitude of consistent cepstral peak. This column value is set to zero if there are no consistent peaks.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometer-seconds	0.0	f7.5	Y
Range	pkamp > 0.0			

3.2.528. PKQF

Tables	CEPPKS (REB)			
Description	Frequency of consistent cepstral peak. This column value is set to zero if no consistent peaks exist.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	0.0	f11.8	Y
Range	pkqf > 0.0			

3.2.529. PLANLR

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Planarity of an S-type polarization column defined as 1 - l3/l2, where l2 and l3 are eigenvalues from the decomposition of the covariance matrix. Planarity is measured at the time of maximum 3-component amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	0.0 <= planlr <= 1.0			

3.2.530. PLANS

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Planarity of an S-type polarization column defined as 1 - l3/l2, where l2 and l3 are eigenvalues from the decomposition of the covariance matrix. Planarity is measured at the time of maximum 3-component amplitude. The only difference between plans and planlr is in the definition of the overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	0.0 <= plans <= 1.0			

3.2.531. PLID

Tables	PROBLEMLOG (IDCX)			
Description	Problem log identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	plid > 0			

3.2.532. PN_SNR

Tables	EVSC_REGIONAL (IDCX)			
Description	Signal-to-noise ratio of the Pn measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pn_snr > 0.0			

3.2.533. PNLG

Tables	EVSC_REGIONAL (IDCX)			
Description	Logarithm (base 10) of the distance corrected Pn/Lg ratio.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pnlg > -999.0			

3.2.534. PNLG_QUAL

Tables	EVSC_REGIONAL (IDCX)			
Description	Data quality indicator for the Pn/Lg measurement. A string of zeros indicates good data quality. See quality flag note for pnsn_qual.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)		- (hyphen)	a10	Y
Range	any valid ORACLE string			

3.2.535. PNSMAX

Tables	EVSC_REGIONAL (IDCX)			
Description	Maximum of the Pn/Sn and Pn/Lg ratios.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pnsmax > -999.0			

3.2.536. PNSMAX_CORR

Tables	EVSC_REGIONAL (IDCX)			
Description	Correction term of the maximum of the Pn/Sn and Pn/Lg ratios.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pnsmax_corr > -999.0			

3.2.537. PNSMAX_ERR

Tables	EVSC_REGIONAL (IDCX)			
Description	Standard error of the maximum of the Pn/Sn and Pn/Lg ratios.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pnsmax_err > -999.0			

3.2.538. PNSN

Tables	EVSC_REGIONAL (IDCX)			
Description	Logarithm (base 10) of the distance-corrected Pn/Sn amplitude ratio.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	pnsn > -999.0			

3.2.539. PNSN_QUAL

Tables	EVSC_REGIONAL (IDCX)			
Description	Data quality indicator for the Pn/Sn amplitude ratio measurement. A string of zeros indicates good data quality. Each position in the quality string indicates the state of data quality test. A 0 character indicates the data passed the test, a 1 indicates the data failed the test. Reading from left-to-right, the test indicators are ordered as follows: 1. Missing data - 1 indicates that Pn, Sn, Lg signal or noise values are not available for the calculation. 2. Signal-to-noise - 1 indicates that the snr for a given amplitude ratio does not satisfy the input criteria. 3. No distance correction - 1 indicates that there is no distance correction data available to apply to this amplitude ratio (see Attencoef). 4. Exceeds valid range of distance correction - 1 indicates the event is outside the valid range of applicability for the distance correction given in Attencoef. 5. No correction grid file - 1 indicates there is no correction grid file provided for the station under consideration. 6. Exceeds valid range of correction grid file - 1 indicates the event is outside the valid range of the correction grid file provided for the station. 7. Spare field (not currently used) - set to 0. 8. Anomalous data value - 1 indicates an anomalous regional phase amplitude measurement, invalidating the P/S measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)		- (hyphen)	a10	Y
Range	any valid ORACLE string			

3.2.540. POCID

Tables	DATAUSER (IDCX), SUBSUSER (IDCX)			
Description	Point of contact identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	pocid > 0			

3.2.541. POINTSPIKE

Tables	QCSTATS (IDCX)			
Description	Amount of data in the detection processing interval masked due to point-spikes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	pointspike >= 0.0			

3.2.542. POSITION

Tables	CHANNAME (STATIC)			
Description	The number of this channel in the mask column of the waveinterval and clf table. The first station channel should have a position zero, the second channel position one and so on.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	Y
Range	position >= 0			

3.2.543. PREFER_LOC

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Preferred location identifier. This column indicates which of three possible location solutions is the chosen location. The hypocentre can be either held to a surface location (S), determined with no constraints at all (free depth, F), or restrained based on the settings of constrain_ot, constrain_latlon, and constrain_depth, (R). The constrained location (R) can be fixed in origin time/latitude and longitude/depth. Prefer_loc takes precedence to the actual constraint settings (constrain_ot, constrain_latlon, and constrain_depth) when prefer_loc indicates a surface (S) or free depth (F) location. Default is "S."			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	prefer_loc IN {F, S, R}			

3.2.544. PREFOR

Tables	EVENT (LEB), EVENT (REB), EVENT (SEL1), EVENT (SEL2), EVENT (SEL3)			
Description	Preferred origin. This column holds the origin identifier (orid) that points to the preferred origin for a seismic event.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	prefor > 0			

3.2.545. PRID

Tables	PROBLEM (IDCX)			
Description	Problem identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	prid > 0			

3.2.546. PRID

Tables	PROBLEMLOG (IDCX)			
Description	Problem identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	prid > 0			

3.2.547. PRIMARYKEY

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Not used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any string up to 24 characters			

3.2.548. PRIORITY

Tables	DATAUSER (IDCX)			
Description	Priority assigned to process.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)		NOT ALLOWED	i2	N
Range	priority > 0			

3.2.549. PRIORITY

Tables	SUBSUSER (IDCX)			
Description	Priority assigned to process.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)		-1	i2	Y
Range	priority > 0			

3.2.550. PROB_WEIGHT_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Probability weighted time. The weight for a sample is the probability that the samples amplitude is the maximum amplitude associated with the arrival within the frequency band defined by low_cut, high_cut, ford, and ftype.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	any valid epoch time			

3.2.551. PROCCLASS

Tables	TIMESTAMP (IDCX)			
Description	Process class used to group processes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	N
Range	any string up to the character field width			

3.2.552. PROCCLASS

Tables	MIG_DATE (MIGRATE)			
Description	Process class used to group processes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	N
Range	any upper case string up to the character field width			

3.2.553. PROCCLASS

Tables	PROBLEMMAIL (IDCX)			
Description	Category of problem, such as Stations, Software, Message or Interactive.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(17)		NOT ALLOWED	a17	N
Range	any string up to the character field width			

3.2.554. PROCCLASS

Tables	PROBLEM (IDCX)			
Description	Category of problem, such as Stations, Software, Message or Interactive.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(17)		NOT ALLOWED	a17	Y
Range	any string up to the character field width			

3.2.555. PROCNAME

Tables	TIMESTAMP (IDCX)			
Description	Process name that identifies a process within a process class.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	N
Range	any string up to character limit			

3.2.556. PROCNAME

Tables	MIG_DATE (MIGRATE)			
Description	Process name that identifies a process within a process class.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	N
Range	any upper case string up to the character field width			

3.2.557. PROCNAME

Tables	PROBLEM (IDCX)			
Description	Process name that identifies a process within a process class.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(17)		NOT ALLOWED	a17	Y
Range	any string up to 16 characters			

3.2.558. PRODFMT

Tables	PRODUCTCRITERIA (IDCX)			
Description	The format of the product. Must be one of the currently supported IDC product formats: GSE2.0, IMS1.0.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	prodfmt IN { GSE2.0, IMS1.0 }			

3.2.559. PRODID

Tables	EVSC_PROD (IDCX), PRODTRACK (IDCX)			
Description	Product identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	prodid > 0			

3.2.560. PRODID

Tables	SUBS (IDCX)			
Description	Product identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	prodid > 0			

3.2.561. PRODID

Tables	PRODUCTCRITERIA (IDCX), PRODUCTTYPEEVSC (IDCX), PRODUCTTYPEORIGIN (IDCX), PRODUCTTYPESTA (IDCX)			
Description	Product identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	N
Range	prodid > 0			

3.2.562. PRODNAME

Tables	PRODUCTCRITERIA (IDCX)			
Description	Name of the product.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any valid string up to 24 characters			

3.2.563. PRODSUBTYPE

Tables	PRODUCTCRITERIA (IDCX)			
Description	Subtype of the product. Typically corresponds to one of the IDC SHI event bulletins such as SEL1, SEL2, SEL3, LEB, REB etc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)		- (hyphen)	a12	Y
Range	prodsubtype IN { sel1, sel2, sel3, reb, etc. }			

3.2.564. PRODTYPE

Tables	FPDESCRIPTION (IDCX)			
Description	Product type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)		- (hyphen)	a12	Y
Range	prodtype IN {origin, event, bulletin, arrival, detection, waveform}			

3.2.565. PRODTYPE

Tables	PRODUCTCRITERIA (IDCX)			
Description	Product type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	prodtype IN {origin, event, bulletin, arrival, detection, waveform}			

3.2.566. PROJECTION

Tables	MAPDISC (MAP)			
Description	Projection of the Map; a positive integer enumerator for uniquely classifying the stereographic projection of the Map. Azimuthal equidistant = 2; Mercator = 3.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	projection IN {2, 3}			

3.2.567. PROP_MODE

Tables	PHASE_DESCRIPTION (STATIC)			
Description	Indicates the propagation mode for this phase. One of P,S,H,I,V or N.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	N
Range	prop_mode IN { P,S,H,I,V,N }			

3.2.568. PTIME

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Epoch time at which P-type polarization columns are estimated. This column value is the centre of the time window with maximum rectilinearity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999999	f17.5	Y
Range	any valid epoch time			

3.2.569. PTMCOR

Tables	SITEAUX (STATIC)			
Description	P-wave arrival time correction.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f6.3	Y
Range	ptmcor > -999.0			

3.2.570. PTYP

Tables	CEPPKS (REB)			
Description	Consistent cepstral peak type. This column is FC-PHS if consistent Fourier cepstral peaks are found across two or more phases for one array and no peak is in the noise cepstrum at this quefrency. Otherwise, it is "-" if no consistent cepstral peaks are found.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	ptyp IN {FC-PHS}			

3.2.571. QCSTATSID

Tables	QCSTATS (IDCX)			
Description	Data quality statistics identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	qcstatsid > 0.0			

3.2.572. QUAL

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Onset quality. This single-character flag is used to denote the sharpness of the onset of a seismic phase. This relates to the timing accuracy as follows: i (impulsive) - accurate to ?0.2 seconds e (emergent) - accuracy between ?(0.2 to 1.0 seconds) w (weak) - timing uncertain to > 1 second			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	qual IN {i, e, w}			

3.2.573. QUERY_SEQ_NO

Tables	MIG_RULES (MIGRATE)			
Description	Sequence in which the queries will be executed, starting at number one.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	i4	N
Range	query_seq_no >= 1			

3.2.574. QUERY_TYPE

Tables	MIG_RULES (MIGRATE)			
Description	Type of query for data migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	query_type IN {COMMIT, CREATE_TABLE, DELETE, DROP_TABLE, SELECT_INSERT}			

3.2.575. RATIO

Tables	SPLP (REB)			
Description	Ratio of short-period to long-period energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f10.8	Y
Range	ratio > 0			

3.2.576. RATIOTYPE

Tables	ATTENCOEF (STATIC)			
Description	Amplitude ratio type. This identifies the type of P/S amplitude ratio (for example, Pn/Lg or Pn/Sn) for which the attenuation coefficients apply.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	N
Range	any valid string up to 6 characters			

3.2.577. RCOEFID

Tables	REGCOEF (STATIC)			
Description	Linear coefficient set identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		- (hyphen)	a20	N
Range	any valid string up to 20 characters			

3.2.578. RCOEFTYPE

Tables	REGCOEF (STATIC)			
Description	Type of linear weighting coefficient used in regional P/S screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)		- (hyphen)	a10	N
Range	any valid string up to 10 characters			

3.2.579. RCOEFVALUE

Tables	REGCOEF (STATIC)			
Description	Value of linear weighting coefficient used in regional P/S screening criterion. Identified by rcoeftype.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	any valid floating point value			

3.2.580. REASON

Tables	DISCARD (LEB), DISCARD (REB)			
Description	Reason an automated system event was discarded by an analyst.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)		NOT ALLOWED	a30	N
Range	any valid string up to the character width			

3.2.581. RECEIVESPAN

Tables	CLF (IDCX)			
Description	The difference in seconds between the receiving time of the last byte and the receiving time of the first byte of a particular frame.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)			f17.5	Y
Range				

3.2.582. RECID

Tables	DERVDISC (IDCX)			
Description	Unique record identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	recid > 0			

3.2.583. RECT

Tables	APMA (IDCX), APMA (LEB), APMA (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Signal rectilinearity defined as 1 - (l3 + l2)/2l1 where l1, l2, and l3 are the three eigenvalues from the decomposition of the covariance matrix. This column value is the maximum rectilinearity for all overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.3	Y
Range	0.0 <= rect <= 1.0			

3.2.584. RECTYPE

Tables	SPLP (REB)			
Description	Recipe type. This term identifies the algorithm used to calculate the parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	N
Range	any string up to the character field width			

3.2.585. RECTYPE

Tables	THIRDMOM (REB), TIMEFREQ (REB)			
Description	Recipe type. This term identifies the algorithm used to calculate the parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	any string up to the character field width			

3.2.586. RECTYPE

Tables	COMPLEXITY (REB)			
Description	Recipe type. This term identifies the algorithm used to calculate the parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any string up to the character field width			

3.2.587. REFLAT

Tables	MAPDISC (MAP)			
Description	Latitude reference; latitude of the center of the Map application.s projection (used for azimuthal equidistant projections only).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	-90.0 <= reflat <= 90.0			

3.2.588. REFLON

Tables	MAPDISC (MAP)			
Description	Longitude reference. Longitude of the center of the Map application's projection (used for azimuthal equidistant projections only).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999	f9.4	Y
Range	-180.0 <= reflon <= 180.0			

3.2.589. REFOFFSETLAT

Tables	MAPDISC (MAP)			
Description	Latitude offset reference. This column value is the reference (in pixels) from the lower left corner of the map to the center of the Map applications projection. In the case where the reference point is at the center of the map, the offsets are equal to half the map width and height. For azimuthal equidistant projections only.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	pixels	-1	f9.4	Y
Range	refoffsetlat > 0			

3.2.590. REFOFFSETLON

Tables	MAPDISC (MAP)			
Description	Longitude offset reference. This column value is the reference (in pixels) from the lower left corner of the map to the center of the Map application.s projection. For azimuthal equidistant projections only.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	pixels	-1	f9.4	Y
Range	refoffsetlon > 0			

3.2.591. REFSTA

Tables	SITE (STATIC)			
Description	Reference station. This string specifies the reference station with respect to which array members are located (see deast, dnorth).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	any sta from tables			

3.2.592. REG_CONF

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Confidence level of the regional seismic P/S screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	0.0 < reg_conf < 1.0			

3.2.593. REGNAME

Tables	PRODUCTTYPEEVSC (IDCX)			
Description	Region name for subscriptions.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any valid string up to 24 characters			

3.2.594. RELY

Tables	SITEAUX (STATIC)			
Description	Station reliability. This column is an estimate of the percentage of time that the station is up.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f5.2	Y
Range	0.0 <= rely <= 1.0			

3.2.595. REMARK

Tables	REMARK (IDCX), REMARK (LEB), REMARK (REB), REMARK (SEL1), REMARK (SEL2), REMARK (SEL3), REMARK (STATIC)			
Description	Descriptive text. This single line of text is an arbitrary comment about a record in the database. The comment is linked to its parent table only by forward reference from commid in the record of the table of interest (see commid, lineno).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(80)		- (hyphen)	a80	Y
Range	any string up to 80 characters			

3.2.596. REQ_AZSLO_DIST

Tables				
Description	Maximum distance from hypocenter to disregard azimuth and slowness residuals			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	degrees	-1	i8	Y
Range	dis_dist >= 0.0			

3.2.597. REQ_AZSLO_SNR

Tables				
Description	Minimum signal-to-noise ratio required to disregard azimuth and slowness residuals			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)	signal-to-noise	-1	i8	Y
Range	dis_allow >= 0.0			

3.2.598. REQID

Tables	REQUEST (IDCX)			
Description	Request identifier. Unique key to allow tracking of requests by the Message Subsystem.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	reqid > 0			

3.2.599. REQUESTOR

Tables	REQUEST (IDCX)			
Description	Original requestor of this data. The requestor is the person or program that requests this waveform data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to 15 characters			

3.2.600. REVFUNCTION

Tables	REVAUDIT (LEB)			
Description	Name of the revision function used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		NOT ALLOWED	a32	N
Range	any function name in rebrevise			

3.2.601. REVID

Tables	REVAUDIT (LEB)			
Description	Revision identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	revid > 0			

3.2.602. REVISION

Tables	CHANNAME (STATIC)			
Description	link between the clf and channame table to indicate which position values in the channame table should be used. This column is needed because channels may be added and removed from a station. The channame table stores each combination of channels using different revision values. This allows historical data to be analysed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	N
Range	revision > 0			

3.2.603. REVISION

Tables	FILEPRODUCT (IDCX)			
Description	Revision number of the data file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		-1	i4	Y
Range	revision > 0			

3.2.604. REVISION

Tables	FRAMEPRODUCT (IDCX)			
Description	Revision number of the data file.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	Y
Range	revision > 0			

3.2.605. REVISION

Tables	CLF (IDCX)			
Description	link between the clf and channame table to indicate which position values in the channame table should be used. This column is needed because channels may be added and removed from a station. The channame table stores each combination of channels using different revision values. This allows historical data to be analysed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	Y
Range	revision > 0			

3.2.606. REVSTATE

Tables	REVAUDIT (LEB)			
Description	State of the revision.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	revstate IN {DONE|FAILED|ABORTED}			

3.2.607. REVTAGID1

Tables	REVAUDIT (LEB)			
Description	Value of the foreign key named in revtagname1.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	revtagid1 > 0			

3.2.608. REVTAGID2

Tables	REVAUDIT (LEB)			
Description	Value of the foreign key named in revtagname2.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	revtagid2 > 0			

3.2.609. REVTAGNAME1

Tables	REVAUDIT (LEB)			
Description	Name of the foreign key whose value is in revtagid1.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	revtagname1 IN {valid identifier}			

3.2.610. REVTAGNAME2

Tables	REVAUDIT (LEB)			
Description	Name of the foreign key whose value is in revtagid2.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	revtagname2 IN {valid identifier}			

3.2.611. RID

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Recipe identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any string up to eight characters long			

3.2.612. RMSAMP

Tables	PMCC_FEATURES (IDCX)			
Description	Mean value of the root mean square amplitudes of the detection pixels in the family (Pa)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	Y
Range				

3.2.613. ROTATION

Tables	MAPDISC (MAP)			
Description	Map rotation. This is the rotation of the projection from 0?, or due north. Rotation specifies the azimuth of the y-raster in degrees clockwise from north (for azimuthal equidistant projections only).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-1	f9.4	Y
Range	0.0 <= rotation < 360.0			

3.2.614. RSCORE

Tables	EVSC_PROD (IDCX)			
Description	Score for the regional seismic P/S event-screening criterion.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	rscore > -999.0			

3.2.615. RSPTYPE

Tables	INSTRUMENT (STATIC)			
Description	Instrument response type. The column value denotes the style in which detailed calibration data are stored. The neighboring column dfile tells where the calibration data are saved. Rsptype = paz indicates the data are the poles and zeros of the Laplace transform. Rsptype = fap indicates the data are amplitude/phase values at a range of frequencies. Rsptype = fir indicates that the response type is a finite impulse response table. Rsptype = pazfir indicates a combination of poles, zeros, and finite impulse response. Other codes may be defined.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	any lower-case string up to six characters			

3.2.616. SAMPRATE

Tables	INSTRUMENT (STATIC)			
Description	Sampling rate. This column is the sample rate in samples/second. The column value is specifically the nominal sample rate, not accounting for clock drift.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	samples/sec	NOT ALLOWED	f11.7	Y
Range	samprate > 0.0			

3.2.617. SAMPRATE

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Sampling rate. This column is the sample rate in samples/second. The value may vary slightly from the nominal to reflect clock drift.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	samples/sec	NOT ALLOWED	f11.7	Y
Range	samprate > 0.0			

3.2.618. SCALE

Tables	MAPDISC (MAP)			
Description	Map scale.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	radians per pixel for mercator projections; kilometers per pixel for azimuthal equidistant projections	-1	f9.4	Y
Range	scale > 0			

3.2.619. SCORE

Tables	EVSC_PROD (IDCX)			
Description	Composite event-screening score. This score numerically indicates the degree to which a particular event meets or does not meet the combined screening criteria.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	score > -999.0			

3.2.620. SDEPTH

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Depth error. This is the maximum error of a depth estimate for a level of confidence given by conf (see smajax, sminax, and sxx, syy, szz, stt, sxy, sxz, syz, stx, sty, stz).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-1.0	f9.4	Y
Range	sdepth > 0.0			

3.2.621. SDOBS

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Standard error of one observation. This column is derived from the discrepancies in the arrival times of the phases used to locate an event. This column is defined as the square root of the sum of the squares of the time residuals divided by the number of degrees of freedom. The latter is the number of defining observations (ndef in Origin (Origin_temp_ga)) minus the dimension of the system solved (4 if depth is allowed to be a free variable, 3 if depth is constrained).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f9.4	Y
Range	sdobs > 0.0			

3.2.622. SEAZ

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Station-to-event azimuth calculated from the station and event locations and measured clockwise from north.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.2	Y
Range	0.0 <= seaz <= 360.0			

3.2.623. SEAZLR

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Azimuth of the eigenvector (e3) associated with the smallest eigenvalue (l3). This column is corrected by 180? to give an estimate of the station-to-event azimuth (with an 180? ambiguity). This column is an S-type column calculated at the time of the maximum 3-component amplitude. The only difference between seazs and seazlr is in the definition of the overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.2	Y
Range	0.0 <= seazlr <= 360.0			

3.2.624. SEAZP

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Azimuth of the eigenvector (e1) associated with the largest eigenvalue (l1). The column value is corrected by 180? to give an estimate of the station-to-event azimuth. This P-type value is calculated at the time of maximum rectilinearity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.2	Y
Range	0.0 <= seazp <= 360.0			

3.2.625. SEAZS

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	Azimuth of the eigenvector (e3) associated with the smallest eigenvalue (l3). This column is corrected by 180? to give an estimate of the station-to-event azimuth (with an 180? ambiguity). This column is an S-type column calculated at the time of the maximum 3-component amplitude. The only difference between seazs and seazlr is in the definition of the overlapping time windows.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	-999.0	f7.2	Y
Range	0.0 <= seazs <= 360.0			

3.2.626. SECONDKEY

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Not used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any string up to 24 characters			

3.2.627. SEGTYPE

Tables	DUPWFDISC (IDCX)			
Description	Flag indicating whether the waveform segment is original (o), virtual (v), segmented (s) or duplicated (d).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	segtype IN { o,v,s,d }			

3.2.628. SEGTYPE

Tables	QUARANTINEWFDISC (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Flag indicating whether the waveform segment is original (o), virtual (v), segmented (s) or duplicated (d).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	segtype IN {o, v, s, d}			

3.2.629. SEQ_CONTENTS

Tables	MIG_RULES (MIGRATE)			
Description	Contents of a query for data migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(200)		NOT ALLOWED	a200	Y
Range	any string up to 200 characters that is a valid SQL query			

3.2.630. SEQ_TYPE

Tables	MIG_RULES (MIGRATE)			
Description	Type of sequence to be added to the query.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		NOT ALLOWED	a15	N
Range	seq_type IN {END_LDDATE, START_LDDATE, TEXT}			

3.2.631. SERVICETIME

Tables	DATAUSER (IDCX)			
Description	Last time a request from the user with the userid in the datauser table was serviced.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999999999999	f17.5	Y
Range	servicetime >= 0			

3.2.632. SIGMA_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Standard deviation of the probability weighted time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)		-999.0	f17.5	Y
Range	sigma_time >= 0			

3.2.633. SIGMAFREQ

Tables	PMCC_FEATURES (IDCX)			
Description	Standard deviation of the frequency values of the detection pixels in the family (Hz)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f10.4	Y
Range				

3.2.634. SIGTYPE

Tables	MSGDISC (IDCX)			
Description	Digital signature type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	Y
Range	ASCII character string			

3.2.635. SKEWNESS

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Skew of the estimated signal energy between onset_time and termination_time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-9999999999999	f9.4	Y
Range	-10000000.0 < skewness < 10000000.0			

3.2.636. SLO_HI

Tables	BREGION_TAB (STATIC)			
Description	Maximum slowness value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	seconds/degree	-1	f7.2	Y
Range	slo_hi >= 0			

3.2.637. SLO_LO

Tables	BREGION_TAB (STATIC)			
Description	Minimum slowness value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	seconds/degree	-1	f7.2	Y
Range	slo_lo >= 0			

3.2.638. SLO_REL

Tables				
Description	Slowness reliability estimate			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)	scale value between 0 and 1	-999.0	f8.3	Y
Range	0.0 <= slo_rel <= 1.0			

3.2.639. SLODEF

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Slowness defining code. This one-character flag indicates whether or not the slowness of a phase was used to constrain the event location. This column is defining (slodef = d) or non defining (slodef = n) for this arrival.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	slodef IN {d, n}			

3.2.640. SLORES

Tables	DEFINE_PHASE_RESIDUAL (STATIC)			
Description	Slowness residual. This column gives the difference between an observed slowness and a theoretical prediction. The prediction is calculated for the related phase and event origin described in the record.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/kilometer	-999.0	f7.2	N
Range	slores > -999.0			

3.2.641. SLORES

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Slowness residual. This column gives the difference between an observed slowness and a theoretical prediction. The prediction is calculated for the related phase and event origin described in the record.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/kilometer	-999.0	f7.2	Y
Range	slores > -999.0			

3.2.642. SLORES

Tables	ALLOW_RESID (LEB)			
Description	The maximum allowable difference between an observed slowness and a theoretical prediction.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/degree	-999.0	f7.2	Y
Range	slores > -999.0			

3.2.643. SLOW

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Observed slowness of a detected arrival. Units are seconds/degree.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/degree	-1.0	f7.2	Y
Range	slow >= 0.0			

3.2.644. SLOW

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), HYDRO_ARR_GROUP (IDCX), HYDRO_ARR_GROUP (LEB), HYDRO_ARR_GROUP (REB)			
Description	Observed slowness of an arrival. Units are seconds/kilometer.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/kilometer	-1.0	f7.2	Y
Range	slow >= 0.0			

3.2.645. SLOW

Tables	PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3)			
Description	Slowness of a predicted arrival. Units are seconds/degree.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds/degree	-1.0	f7.2	Y
Range	slow >= 0.0			

3.2.646. SLOW_RELY

Tables	STA_RELY (STATIC)			
Description	Slowness reliability flag. The value is a single-character flag to indicate whether (y) or not (n) the slowness is considered to be reliable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	Y
Range	slow_rely IN { 0,1}			

3.2.647. SLOW_WEIGHT

Tables	PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Weight given to defining slowness for this phase			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	N
Range				

3.2.648. SMAJ_SC

Tables	EVSC_PROD (IDCX)			
Description	Semi-major axis of error ellipse, used for onshore/offshore determination, for a confidence level given by loc_conf of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	smaj_sc > 0.0			

3.2.649. SMAJAX

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Semi-major axis of error ellipse for a given confidence. The column value is the length of the semi-major axis of the location error ellipse. The value is found by projecting the covariance matrix onto the horizontal plane. The level of confidence is specified by conf (see sdepth, sminax, and sxx, syy, szz, stt, sxy, sxz, syz, stx, sty, stz).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-1.0	f9.4	Y
Range	smajax > 0.0			

3.2.650. SMIN_SC

Tables	EVSC_PROD (IDCX)			
Description	Semi-minor axis of error ellipse, used for onshore/offshore determination, for a confidence level given by loc_conf of table Producttypeevsc.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-999.0	f7.2	Y
Range	smin_sc > 0.0			

3.2.651. SMINAX

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Semi-minor axis of error ellipse. The column value is the length of the semi-minor axis of the location error ellipse. The value is found by projecting the covariance matrix onto the horizontal plane. The level of confidence is specified by conf (see sdepth, smajax, and sxx, syy, szz, stt, sxy, sxz, syz, stx, sty, stz).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	kilometers	-1.0	f9.4	Y
Range	sminax > 0.0			

3.2.652. SN_SNR

Tables	EVSC_REGIONAL (IDCX)			
Description	Signal-to-noise ratio of the Sn measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	sn_snr > 0.0			

3.2.653. SNR

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB), APMA (IDCX), APMA (LEB), APMA (REB), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), COMPLEXITY (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Signal-to-noise ratio. This is an estimate of the ratio of the amplitude of the signal to amplitude of the noise immediately preceding it. For apma, this value is based on the maximum 3-component amplitudes (see amps). This column is the average signal-to-noise ratio for the frequency bands that contributed to the final polarization estimates.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f10.2	Y
Range	snr > 0.0			

3.2.654. SNR_HI

Tables	BREGION_TAB (STATIC)			
Description	Maximum signal-to-noise ratio value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)		-1	f10.2	Y
Range	snr_hi >= 0			

3.2.655. SNR_HIGH_BAND

Tables	EVSC_HYDRO (IDCX)			
Description	Hydroacoustic signal-to-noise ratio in the high-frequency band (32-64 Hz) from table Amplitude for a given orid/sta pair.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	snr_high_band > 0.0			

3.2.656. SNR_LO

Tables	BREGION_TAB (STATIC)			
Description	Minimum signal-to-noise ratio value for observations from the station to a bregion to qualify as a candidate for that region.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,3)		-1	f10.2	Y
Range	snr_lo >= 0			

3.2.657. SNTHRSH

Tables	SITEAUX (STATIC)			
Description	Nominal signal-to-noise ratio.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f5.2	Y
Range	snthrsh > 1.0			

3.2.658. SPIKE

Tables	QCSTATS (IDCX)			
Description	Amount of data in the detection processing interval masked due to spikes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-999.0	f17.5	Y
Range	spike >= 0.0			

3.2.659. SPROID

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Uniquely identifies a set of parameters used in the signal processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	sproid > 0			

3.2.660. SRC

Tables	MIG_RULES (MIGRATE)			
Description	Source database for migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)		NOT ALLOWED	a10	N
Range	any string up to 10 characters that is a valid name of a database server			

3.2.661. SRC_DPNT_CORR

Tables	EVENT_CONTROL (LEB), EVENT_CONTROL (REB)			
Description	Identification of whether or not, and what type of, source-dependent corrections were applied to the location. 0 = No source-dependent corrections applied to the event location. 1 = Test-site travel-time corrections applied to the event location. 2 = Source-Region Station-Timing (SRST) corrections applied to the event location. 3 = Regional level source-specific station corrections (SSSC) applied to the event location. SRST correction is not applied, even if it exists. 4 = Local level SSSCs applied to the location. SRST correction is not applied, even if it exists.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(2,0)		0	i2	Y
Range	src_dpnt_corr IN {0, 1, 2, 3, 4}			

3.2.662. SRC_TBL

Tables	MIG_RULES (MIGRATE)			
Description	Source table name for database migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)		NOT ALLOWED	a30	N
Range	any valid database table_name up to the character width			

3.2.663. SRN

Tables	SREGION (STATIC)			
Description	Seismic region number, as given in [Fli74] (see grn, grname, and srname).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	srn > 0			

3.2.664. SRN

Tables	ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3)			
Description	Seismic region number, as given in [Fli74] (see grn, grname, and srname).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	srn > 0			

3.2.665. SRNAME

Tables	SREGION (STATIC)			
Description	Seismic region name. This column is the common name of a seismic region, as given in [Fli74]. Names may have changed due to changing political circumstances (see srn and grname).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)		NOT ALLOWED	a40	Y
Range	any upper-case string up to 40 characters			

3.2.666. STA

Tables				
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case string up to the character field width			

3.2.667. STA

Tables	BEAMAUX (STATIC)			
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case character string up to the field width			

3.2.668. STA

Tables	AFFILIATION (STATIC), ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), ATTENCOEF (STATIC), BREGION_TAB (STATIC), COMPLEXITY (REB), DERVDISC (IDCX), DFXLOCK (IDCX), DUPWFDISC (IDCX), FORBEAMAUX (STATIC), OUTAGE (IDCX), PMCC_FEATURES (IDCX), PRODUCTTYPESTA (IDCX), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), REQUEST (IDCX), SEMAPHORE (IDCX), SENSOR (STATIC), SITE (STATIC), SITEAUX (STATIC), SITECHAN (STATIC), SITEPOLL (STATIC), SITE_ADDRESS (STATIC), SPLP (REB), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3), STANET (STATIC), STA_RELY (STATIC), THIRDMOM (REB), TIMEFREQ (REB), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case string up to the character field width			

3.2.669. STA

Tables	ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED - (hyphen) for assoc, chan_groups, dlfile, fileproduct, fkdisc, fsdisc, qcstats, stassoc, thirdmom	a6	Y
Range	any upper-case string up to six characters			

3.2.670. STA

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), CHAN_GROUPS (IDCX), FILEPRODUCT (IDCX), STASSOC (IDCX)			
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	any upper-case string up to the character field width			

3.2.671. STA

Tables	CEPPKS (REB), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), EVSC_HYDRO (IDCX), EVSC_REGIONAL (IDCX), FRAMEPRODUCT (IDCX), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), PARTICIPATION (STATIC)			
Description	Station code. This column value is the code name of a seismic, hydroacoustic, or infrasonic observatory and identifies a geographic location recorded in the site table. Generally only three to five characters are used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	Y
Range	any upper-case string up to the character field width			

3.2.672. STANAME

Tables	SITE (STATIC)			
Description	Station name/description. This column value is the full name of the station whose codename is in sta. As an example, one record in the site table connects sta = ANMO to staname = ALBUQUERQUE, NEW MEXICO (SRO).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)		- (hyphen)	a50	Y
Range	any upper-case string up to 50 characters			

3.2.673. STAPER

Tables	SITEAUX (STATIC)			
Description	Standard period at which noise estimates are made.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f5.2	Y
Range	staper > 0.0			

3.2.674. START_TIME

Tables	REQUEST (IDCX)			
Description	Epoch start time of the data interval. Epochal time is given as seconds since hour 0 January 1, 1970.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	N
Range	any valid epoch time			

3.2.675. START_TIME

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Epoch start time of the data interval. Epochal time is given as seconds since hour 0 January 1, 1970.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	NOT ALLOWED	f17.5	Y
Range	any valid epoch time			

3.2.676. STASSID

Tables	STASSOC (IDCX)			
Description	Station association identification. The wavetrain from a single event may be made up of a number of arrivals. A unique stassid joins those arrivals believed to have come from a common event as measured at a single station. Stassid is also the key to the stassoc table, which contains additional signal measurements not contained within the arrival table, such as station magnitude estimates and computed signal characteristics.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	NOT ALLOWED	i10	N
Range	stassid > 0			

3.2.677. STASSID

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Station association identification. The wavetrain from a single event may be made up of a number of arrivals. A unique stassid joins those arrivals believed to have come from a common event as measured at a single station. Stassid is also the key to the stassoc table, which contains additional signal measurements not contained within the arrival table, such as station magnitude estimates and computed signal characteristics.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)	integer	-1	i10	Y
Range	stassid > 0			

3.2.678. STAT_PROV

Tables	SITE_ADDRESS (STATIC)			
Description	State or province of a country.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)		- (hyphen)	a40	Y
Range	any string up to 40 characters			

3.2.679. STATE

Tables	INTERVAL (IDCX), INTERVAL (MIGRATE), REQUEST (IDCX)			
Description	Processing state. The processing state of the interval within the automated processing system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	a set of strings defined at each installation for each automated processing system. For example, done, ready, queued, requested, timeout, running.			

3.2.680. STATE

Tables	GA_TAG (SEL1)			
Description	The state in the ga_tag table is used by GAassoc and GAconflict to recognize arrivals from auxiliary stations and handle them appropriately.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	any state currently recognized by GA applications			

3.2.681. STATE_COUNT

Tables	MSGAUX (IDCX)			
Description	Number of failures of the message system to process a request.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(4,0)		NOT ALLOWED	i4	N
Range	state_count >= 0			

3.2.682. STATECOUNT

Tables	REQUEST (IDCX)			
Description	Count of failures. When state = failed, the statecount column records the number of failures to acquire this data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	Y
Range	statecount >= 0			

3.2.683. STATION

Tables	WAVEINTERVAL (IDCX)			
Description	Station name. Links the channame and waveinterval tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case character string up to the field width			

3.2.684. STATION

Tables	CHANNAME (STATIC)			
Description	Station name. Provides the link between the channame and waveinterval tables.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		NOT ALLOWED	a6	N
Range	any upper-case character string up to the field width			

3.2.685. STATUS

Tables	PRODTRACK (IDCX)			
Description	Status of the product, as related to the operation of Subscription system. Rows for which there are currently no active subscription have status NOACTIVE. Successfully delivered subscriptions have status DONE. NEW indicates new entries, with QUEUED indicating that there is some backlog of subscriptions to be processed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)		- (hyphen)	a12	Y
Range	status IN {NEW, DONE, NOACTIVE, QUEUED}			

3.2.686. STATUS

Tables	DATAUSER (IDCX)			
Description	Flag indicating whether the user is currently active or inactive for requests and subscriptions. For subsuser possible values are a (active) or I (inactive). For datauser, possible values are ACTIVE or INACTIVE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		NOT ALLOWED	a24	N
Range	datauser status IN { ACTIVE, INACTIVE }. subsuser IN { a, I }			

3.2.687. STATUS

Tables	SUBSUSER (IDCX)			
Description	Flag indicating whether the user is currently active or inactive for requests and subscriptions. For subsuser possible values are a (active) or I (inactive). For datauser, possible values are ACTIVE or INACTIVE.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	datauser status IN { ACTIVE, INACTIVE }. subsuser IN { a, I }			

3.2.688. STATUS

Tables	MSGDATATYPE (IDCX), MSGDEST (IDCX), MSGDISC (IDCX), OUTAGE (IDCX)			
Description	Status of the current message. The NA value for all these status fields is - (hyphen), except in the msgdatatype table where it is limited to DONE or FAILED.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	msgdatatype status IN { DONE, FAILED }, otherwise any character string up to the caracter field width.			

3.2.689. STATUS

Tables	PROBLEM (IDCX)			
Description	The status field indicates whether the problem is currently open or closed.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(33)		- (hyphen)	a33	Y
Range	status IN {open, closed}			

3.2.690. STATUS

Tables	SUBS (IDCX), WAVEINTERVAL (IDCX)			
Description	(Subs): Status of the subscription, either a (active) or I (inactive). (Waveinterval): status of the time interval specified by time and endtime), currently always set to NEW.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)		- (hyphen)	a6	Y
Range	subs status in { a, i }, waveinterval status IN { NEW }			

3.2.691. STATUS

Tables	DATAREADY (IDCX)			
Description	Possible values for dataready are: n=new, i=insert, c=change, d=delete or -(hyphen). For ftpfailed, possible values are RETRY or FAILED.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any valid string up to the character limit			

3.2.692. STATUS

Tables	FTPFAILED (IDCX)			
Description	Status of FTP attempt (retry or failed)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		- (hyphen)	a8	Y
Range	any valid string up to the character limit			

3.2.693. STATYPE

Tables				
Description	Type of station			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any valid string up to 24 characters			

3.2.694. STATYPE

Tables	ALLOW_RESID (LEB), DEFINE_PHASE_RESIDUAL (STATIC), WEIGHTS (STATIC)			
Description	Station type. This character string specifies the station type. Recommended entries are ss (single station) or ar (array).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	N
Range	statype IN {ss, ar}			

3.2.695. STATYPE

Tables	SITE (STATIC)			
Description	Station type. This character string specifies the station type. Recommended entries are ss (single station) or ar (array).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	statype IN {ss, ar}			

3.2.696. STAV

Tables	DETECTION (IDCX), DETECTION (LEB), DETECTION (REB)			
Description	Short-term average used to describe the amplitude of a signal. The amplitude is averaged over a small time interval, typically 1-2 seconds. This time window is defined in Sigpro processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	nanometers	-1.0	a18	Y
Range	stav > 0.0			

3.2.697. STDCONSTVAL

Tables	QCSTATS (IDCX)			
Description	Standard deviation of data in masked constant segments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	same as waveform data	-999.0	f17.5	Y
Range	stdconstval >= 0.0			

3.2.698. STIME

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Origin time error in seconds.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f8.2	Y
Range	stime >= 0.0			

3.2.699. STIME

Tables	APMA (IDCX), APMA (LEB), APMA (REB)			
Description	This column is the epoch time at which S-type polarization columns are estimated. The value is the centre of the time window with the maximum 3-component amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds since 01-Jan-1970 00:00:00	9999999999.999	f17.5	Y
Range	any valid epochal time			

3.2.700. STIME

Tables	MSGDEST (IDCX)			
Description	This column is the epochal time at which the corresponding message was sent.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds since 01-Jan-1970 00:00:00	9999999999.999	f17.5	Y
Range	any valid epochal time			

3.2.701. STMCOR

Tables	SITEAUX (STATIC)			
Description	S-wave arrival time correction.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f6.3	Y
Range	stmcor > -999.0			

3.2.702. STREAM

Tables	CHANNAME (STATIC)			
Description	the connection name used in the data transmission. This is the name used in the CD Receiver output files (e.g. ARCES.20080124.20-24.w) In most cases, the stream name is the same as the station name. But for some stations the connection name differs from the station name expected by the processing applications that read cd2w's output. For example, SONM has a connection name SONMS. This column also links to the sta in the frameproduct table.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)			a6	N
Range				

3.2.703. STRIKE

Tables	EVSC_PROD (IDCX), ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Strike of semi-major axis of error ellipse. This column is the strike of the semi-major axis of the location error ellipse, measured in degrees clockwise from the North (see smajax).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees (clockwise from North)	-1.0	f6.2	Y
Range	0.0 <= strike <= 360.0			

3.2.704. STT

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	stt - seconds squared (sec2)	-1.0	f15.4	Y
Range	stt > 0.0			

3.2.705. STX

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	stx - kilometers per second (km/sec)	-1.0	f15.4	Y
Range				

3.2.706. STY

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	sty - kilometers per second (km/sec)	-1.0	f15.4	Y
Range				

3.2.707. STYPE

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB)			
Description	Signal type. This single-character flag indicates the event or signal type. The following definitions hold: l = local event r = regional event t = teleseismic event m = mixed or multiple event g = glitch (for example, non-seismic detection) e = calibration activity obfuscated the data l, r, and t are supplied by the reporting station or as an output of post-detection processing. g and c come from analyst comment or from status bits from GDSN and RSTN data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	stype IN {l, r, t, m, g, c}			

3.2.708. STZ

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	stz - kilometers per second (km/sec)	-1.0	f15.4	Y
Range				

3.2.709. SUB_STATUS

Tables	MSGAUX (IDCX)			
Description	Cause of failure.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		NOT ALLOWED	a24	Y
Range	any string up to 24 characters			

3.2.710. SUBJECT

Tables	MSGDISC (IDCX)			
Description	Subject header from an email message.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		- (hyphen)	a64	Y
Range	any string up to 64 characters			

3.2.711. SUBSID

Tables	SUBS (IDCX)			
Description	Subscription identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	subsid > 0			

3.2.712. SUBSNAME

Tables	SUBS (IDCX)			
Description	Subscription name, which is defined by subscriber.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		- (hyphen)	a24	Y
Range	any string up to 24 characters			

3.2.713. SUBTYPE

Tables	MSGDISC (IDCX)			
Description	Specification of whether or not the request includes waveforms. In the future, this column may contain indications of other message subtypes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)		- (hyphen)	a2	Y
Range	subtype IN {V, R, L}			

3.2.714. SUPRESSEMPTY

Tables	PRODUCTCRITERIA (IDCX)			
Description	Flag indicating whether (y) or not (n) the AutoDRM should send out empty subscription messages when no data are available (Not currently used at the IDC).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(2)		- (hyphen)	a2	Y
Range	suppressempty IN { y, n }			

3.2.715. SVAR

Tables	SPVAR (REB)			
Description	Variance of the detrended log spectrum between fmin and fmax. The spectrum is measured in nm-sec.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f12.6	Y
Range	any floating point value			

3.2.716. SWEIGHT

Tables	WEIGHTS (STATIC)			
Description	Slowness weight.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		0.0	f5.2	Y
Range	sweight >= 0.0			

3.2.717. SXX

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	sxx - kilometers squared (km2)	-1.0	f15.4	Y
Range	sxx > 0.0			

3.2.718. SXY

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	sxy - kilometers squared (km2)	-1.0	f15.4	Y
Range				

3.2.719. SXZ

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	sxz - kilometers squared (km2)	-1.0	f15.4	Y
Range				

3.2.720. SYY

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	syy - kilometers squared (km2)	-1.0	f15.4	Y
Range	syy > 0.0			

3.2.721. SYZ

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	syz - kilometers squared (km2)	-1.0	f15.4	Y
Range				

3.2.722. SZZ

Tables	ORIGERR (IDCX), ORIGERR (LEB), ORIGERR (REB), ORIGERR (SEL1), ORIGERR (SEL2), ORIGERR (SEL3), ORIGERR_TEMP_GA (SEL1), ORIGERR_TEMP_GA (SEL2), ORIGERR_TEMP_GA (SEL3)			
Description	Elements of the covariance matrix for the location identified by orid. The covariance matrix is symmetric (and positive definite) so that sxy = syx, and so on, (x, y, z, t) refer to latitude, longitude, depth, and origin time, respectively. These columns (together with sdobs, ndef, and dtype) provide the information necessary to construct the K-dimensional (K = 2, 3, 4) confidence ellipse or ellipsoids at any confidence limit desired.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	szz - kilometers squared (km2)	-1.0	f15.4	Y
Range	szz > 0.0			

3.2.723. TABLE_NAME

Tables	ARCH_DATA_TYPE (IDCX)			
Description	Name of table encapsulating the data type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	any string up to the character field width that is a valid table name			

3.2.724. TABLENAME

Tables	DATAREADY (IDCX)			
Description	Database table name containing data ready to be distributed by the Subscription Subsystem.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		NOT ALLOWED	a24	Y
Range	any string up to the character field width that is a valid table name			

3.2.725. TAGID

Tables	WFTAG (IDCX), WFTAG (SEGMENT), WFTAG (SEL1), WFTAG (SEL2), WFTAG (SEL3)			
Description	Tagname value. This column contains the value of a foreign key identified in tagname. For example, if tagname is arid, then wftag may be joined to Arrival where arrival.arid = wftag.tagid. If tagname is orid, then wftag and Origin (Origin_temp_ga) may be joined where origin.orid = wftag.tagid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	tagid > 0			

3.2.726. TAGID

Tables	DATAREADY (IDCX)			
Description	Tagname value. This column contains the value of a foreign key identified in tagname. For example, if tagname is arid, then wftag may be joined to Arrival where arrival.arid = wftag.tagid. If tagname is orid, then wftag and Origin (Origin_temp_ga) may be joined where origin.orid = wftag.tagid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	tagid > 0			

3.2.727. TAGID2

Tables	DATAREADY (IDCX)			
Description	Secondary tag value used by the Subscription Subsystem for data types that require more than one identifier (for example, time range for origin).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	Y
Range	tagid2 > 0			

3.2.728. TAGNAME

Tables	DATAREADY (IDCX)			
Description	Tagname type. This column value is the name of the foreign key whose value is in tagid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)		NOT ALLOWED	a12	Y
Range	any character string up to the field width			

3.2.729. TAGNAME

Tables	WFTAG (IDCX), WFTAG (SEGMENT), WFTAG (SEL1), WFTAG (SEL2), WFTAG (SEL3)			
Description	Tagname type. This column value is the name of the foreign key whose value is in tagid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	N
Range	tagname IN {arid, evid, orid, stassid, msgid}			

3.2.730. TASK_NUM

Tables	MIG_RULES (MIGRATE)			
Description	Order of this migration task.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	i4	N
Range	task_num >= 1			

3.2.731. TERMINATION_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Estimated termination time of signal.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999999	f17.5	Y
Range	any valid epoch time			

3.2.732. THATDB

Tables	XTAG (IDCX)			
Description	Database account for the records specified by thatname and thatid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	any character string up to 32 characters that is a valid account name			

3.2.733. THATID

Tables	XTAG (IDCX)			
Description	Identifier for thatname.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	thatid > 0			

3.2.734. THATNAME

Tables	XTAG (IDCX)			
Description	Key for thatid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	Y
Range	thatname IN {arid, orid, wfid .}			

3.2.735. THISDB

Tables	XTAG (IDCX)			
Description	Database account for the records specified by thisname and thisid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)		- (hyphen)	a32	Y
Range	any character string up to 32 characters that is a valid account name			

3.2.736. THISID

Tables	XTAG (IDCX)			
Description	Identifier for thisname.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	thisid > 0			

3.2.737. THISNAME

Tables	XTAG (IDCX)			
Description	Key for thisid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)		NOT ALLOWED	a8	Y
Range	thisname IN {arid, orid, wfid .}			

3.2.738. TIME

Tables	ARRIVAL (IDCX), ARRIVAL (LEB), ARRIVAL (REB), BEAMAUX (STATIC), DERVDISC (IDCX), DUPWFDISC (IDCX), HISTORY (IDCX), ORIGIN (IDCX), ORIGIN (LEB), ORIGIN (REB), ORIGIN (SEL1), ORIGIN (SEL2), ORIGIN (SEL3), ORIGIN_TEMP_GA (SEL1), ORIGIN_TEMP_GA (SEL2), ORIGIN_TEMP_GA (SEL3), QCSTATS (IDCX), QUARANTINEWFDISC (IDCX), SENSOR (STATIC), SITEAUX (STATIC), WAVEINTERVAL (IDCX), WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Epoch time, given as seconds since midnight, January 1, 1970, and stored in a double-precision floating number. time refers to the table in which it is found; for example, in arrival it is the arrival time, in origin it is the origin time, in wfdisc it is the start time of data, and in sensor it is the start time for which measurements are valid. Where the date of historical events is known, time is set to the start time of that date. Where the date of contemporary arrival measurements is known but no time is given, then time is set to the NA Value. Times are given to, at most, one millisecond accuracy. Where the date is unknown, or prior to February 10, 1653, time is set to the NA Value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	N
Range	any valid epoch time			

3.2.739. TIME

Tables	CLF (IDCX), DETECTION (IDCX), DETECTION (LEB), DETECTION (REB), FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX), INTERVAL (IDCX), INTERVAL (MIGRATE), OUTAGE (IDCX), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3), STASSOC (IDCX), TIMESTAMP (IDCX)			
Description	Epoch time, given as seconds since midnight, January 1, 1970, and stored in a double-precision floating number. time refers to the table in which it is found; for example, in arrival it is the arrival time, in origin it is the origin time, in wfdisc it is the start time of data, and in sensor it is the start time for which measurements are valid. Where the date of historical events is known, time is set to the start time of that date. Where the date of contemporary arrival measurements is known but no time is given, then time is set to the NA Value. Times are given to, at most, one millisecond accuracy. Where the date is unknown, or prior to February 10, 1653, time is set to the NA Value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.740. TIME

Tables	PROBLEM (IDCX), PROBLEMLOG (IDCX)			
Description	Epoch time, given as seconds since midnight, January 1, 1970, and stored in a double-precision floating number. time refers to the table in which it is found; for example, in arrival it is the arrival time, in origin it is the origin time, in wfdisc it is the start time of data, and in sensor it is the start time for which measurements are valid. Where the date of historical events is known, time is set to the start time of that date. Where the date of contemporary arrival measurements is known but no time is given, then time is set to the NA Value. Times are given to, at most, one millisecond accuracy. Where the date is unknown, or prior to February 10, 1653, time is set to the NA Value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(17,5)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.741. TIME_RELY

Tables	STA_RELY (STATIC)			
Description	Time reliability flag. The value is a single-character flag to indicate whether (y) or not (n) the time is considered to be reliable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)			a1	Y
Range	time_rely IN { 0,1}			

3.2.742. TIME_SPREAD

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Root-mean-square time spread of the estimated signal energy between onset_time and termination_time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f9.4	Y
Range	timespread > 0.0			

3.2.743. TIME_WEIGHT

Tables	PHASE_WEIGHT_EVENT_DEFINE (STATIC)			
Description	Weight given to defining time for this phase			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)			f8.3	N
Range				

3.2.744. TIMEDEF

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Time-defining code. This one-character flag indicates whether or not the time of a phase was used to constrain the event location. This column is defining (timedef = d) or non defining (timedef = n).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1)		- (hyphen)	a1	Y
Range	timedef IN {n, d}			

3.2.745. TIMELASTSEND

Tables	PRODUCTCRITERIA (IDCX)			
Description	Last epoch time that the product was delivered by the Subscription system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(54)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.746. TIMENEXTSEND

Tables	PRODUCTCRITERIA (IDCX)			
Description	Next epoch time that the product will be delivered by the Subscription system.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(54)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.747. TIMERES

Tables	ALLOW_RESID (LEB)			
Description	Allowable time residual.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f8.3	Y
Range	timeres > -999.0			

3.2.748. TIMERES

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Time residual. This column is a travel-time residual measured in seconds. The residual is found by taking the observed arrival time (saved in the Arrival table) of a seismic phase and subtracting the expected arrival time. The expected arrival time is calculated by a formula based on an earth velocity model (column vmodel), an event location and origin time (saved in table Origin (Origin_temp_ga)), the distance to the station (column dist in table assoc), and the particular seismic phase (column phase in table assoc).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f8.3	Y
Range	timeres > -999.0			

3.2.749. TIMESTAMP

Tables	CLF (IDCX)			
Description	Nominal timestamp of the frame (epochal)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

3.2.750. TIMRES

Tables	DEFINE_PHASE_RESIDUAL (STATIC)			
Description	Time residual (seconds)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	NOT ALLOWED	f8.3	N
Range	timres >= 0.0			

3.2.751. TLEN

Tables	DERVDISC (IDCX)			
Description	Duration of the data interval in seconds.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds		f8.3	Y
Range	tlen > 0			

3.2.752. TLEN

Tables	AMPDESCRIPT (IDCX)			
Description	Time window length. Tlen should be NA in ampdescript if a velocity window is used.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-1.0	f10.3	Y
Range	tlen > 0.0			

3.2.753. TMF

Tables	THIRDMOM (REB)			
Description	Third moment of frequency.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	tmf >= 0.0			

3.2.754. TMFPCT

Tables	THIRDMOM (REB)			
Description	Percentage of signal spectrum amplitudes greater than their corresponding noise spectrum amplitudes in the frequency range [tmf-fmin, tmf-fmax]. tmf-fmin and tmf-fmax are par-file parameters.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	0 <= tmfpct <= 100			

3.2.755. TOFF

Tables	AMPDESCRIPT (IDCX)			
Description	Offset from theoretical or observed arrival time. This column is used to define the start time of the amplitude measurement window and may be used in conjunction with either tlen to define a static window or with gvlo to define a dynamic window. If toff is set to -999, then gvhi must be used to define the start time of the window.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	-999.0	f6.2	Y
Range	toff >= 0.0			

3.2.756. TOTAL_ENERGY

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Total energy in the signal between onset_time and termination_time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	dB re mPa	-1.0	f9.4	Y
Range	total_energy > 0.0			

3.2.757. TOTAL_TIME

Tables	HYDRO_FEATURES (IDCX), HYDRO_FEATURES (LEB), HYDRO_FEATURES (REB)			
Description	Total time that the estimated signal pressure squared exceeds noise_onset_thresh between onset_time and termination_time.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-1.0	f17.5	Y
Range	total_time > 0.0			

3.2.758. TRANSMETH

Tables	MSGDEST (IDCX)			
Description	Method by which the response is to be delivered to the requestor.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to 16 characters			

3.2.759. TSHIFT

Tables	SENSOR (STATIC)			
Description	Correction for clock errors. This column is designed to accommodate discrepancies between actual time and the numerical time written by data recording systems. Actual time is the sum of the reported time plus tshift.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	seconds	NOT ALLOWED	f6.2	Y
Range	any valid real number			

3.2.760. TWEIGHT

Tables	WEIGHTS (STATIC)			
Description	Time weight.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		0.0	f5.2	Y
Range	tweight >= 0.0			

3.2.761. TYPEID

Tables	FPDESCRIPTION (IDCX)			
Description	Identifier for the product type description.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	typeid > 0			

3.2.762. TYPEID

Tables	FILEPRODUCT (IDCX)			
Description	Identifier for the product type description.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	typeid > 0			

3.2.763. TYPEID

Tables	FRAMEPRODUCT (IDCX)			
Description	The numeric typeid for CD-1.0 or CD-1.1 frames. See the fpdescription table for a text description of the typeid.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	Y
Range	typeid > 0			

3.2.764. UNCERTAINTY

Tables	NETMAG (LEB), NETMAG (REB), NETMAG (SEL1), NETMAG (SEL2), NETMAG (SEL3), STAMAG (LEB), STAMAG (REB), STAMAG (SEL1), STAMAG (SEL2), STAMAG (SEL3)			
Description	Magnitude uncertainty. This column value is the standard deviation of the accompanying magnitude measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f7.2	Y
Range	uncertainty > 0.0			

3.2.765. UNITS

Tables	AMPLITUDE (IDCX), AMPLITUDE (LEB), AMPLITUDE (REB)			
Description	Units of amplitude measure.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	units IN {nm}			

3.2.766. USERID

Tables	DATAUSER (IDCX), SUBSUSER (IDCX)			
Description	User identifier for Subscription and Message Subsystems.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	userid > 0			

3.2.767. USERID

Tables	MSGDISC (IDCX), SUBS (IDCX)			
Description	User identifier for Subscription and Message Subsystems.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		-1	i8	Y
Range	userid > 0			

3.2.768. USERNAME

Tables	FTPLOGIN (IDCX)			
Description	(Datauser/Subsuser): user name component of the email address. (Ftplogin): UNIX login name or email address for FTP logins.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	any string up to the character field width that is a valid UNIX user name			

3.2.769. USERNAME

Tables	DATAUSER (IDCX)			
Description	(Datauser/Subsuser): user name component of the email address. (Ftplogin): UNIX login name or email address for FTP logins.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		NOT ALLOWED	a24	N
Range	any string up to the character field width that is a valid UNIX user name			

3.2.770. USERNAME

Tables	SUBSUSER (IDCX)			
Description	(Datauser/Subsuser): user name component of the email address. (Ftplogin): UNIX login name or email address for FTP logins.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)		NOT ALLOWED	a24	Y
Range	any string up to the character field width that is a valid UNIX user name			

3.2.771. VAMP

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Vertical amplitude.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f11.2	Y
Range	vamp >= 0.0			

3.2.772. VANG

Tables	SITECHAN (STATIC)			
Description	Vertical orientation of seismometer. This column measures the angle between the sensitive axis of a seismometer and the outward-pointing vertical direction. For a vertically oriented seismometer, vang = 0. For a horizontally oriented seismometer, vang = 90 (see hang).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)	degrees	NOT ALLOWED	f6.1	Y
Range	0.0 <= vang <= 90.0			

3.2.773. VERIFSTATUS

Tables	MSGDISC (IDCX)			
Description	(Clf): Authentication status of the data frame, - (hyphen) if not tested. (Msgdisc): Authentication status of the message, either PASS, FAIL or (hyphen) for not tested/applicable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	ASCII character string			

3.2.774. VERIFSTATUS

Tables	CLF (IDCX)			
Description	(Clf): Authentication status of the data frame, - (hyphen) if not tested. (Msgdisc): Authentication status of the message, either PASS, FAIL or (hyphen) for not tested/applicable.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(4)		- (hyphen)	a4	Y
Range	Clf: verifstatus IN { - }, Msgdisc verifstatus IN { -, PASS, FAIL }			

3.2.775. VERSION

Tables	FILEPRODUCT (IDCX), FRAMEPRODUCT (IDCX)			
Description	Version of the software that generated the file product.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)		-1.0	f6.2	Y
Range	version > 0.0			

3.2.776. VMODEL

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3), PARRIVAL (LEB), PARRIVAL (REB), PARRIVAL (SEL3)			
Description	Velocity model. This character string identifies the velocity model of the earth used to compute the travel times of seismic phases. A velocity model is required for event location (if phase is defining) or for computing travel-time residuals.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		- (hyphen)	a15	Y
Range	any string up to 15 characters			

3.2.777. VSNR

Tables	AMP3C (IDCX), AMP3C (LEB), AMP3C (REB)			
Description	Vertical signal-to-noise ratio. Ratio of vamp to root-mean-square amplitude of a vertically-oriented component filtered in a frequency band centred at cfreq Hz.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f10.2	Y
Range	vsnr >= 0.0			

3.2.778. WFID

Tables	DUPWFDISC (IDCX), QUARANTINEWFDISC (IDCX)			
Description	Unique waveform identifier (integer)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i10	N
Range	wfid > 0			

3.2.779. WFID

Tables	WFDISC (IDCX), WFDISC (SEGMENT)			
Description	Unique waveform identifier (integer)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		NOT ALLOWED	i8	N
Range	wfid > 0			

3.2.780. WFID

Tables	WFTAG (IDCX), WFTAG (SEGMENT), WFTAG (SEL1), WFTAG (SEL2), WFTAG (SEL3)			
Description	Unique waveform identifier for a wfdisc record.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)		-1	i10	N
Range	wfid > 0			

3.2.781. WGT

Tables	ASSOC (IDCX), ASSOC (LEB), ASSOC (REB), ASSOC (SEL1), ASSOC (SEL2), ASSOC (SEL3), ASSOC_TEMP_GA (SEL1), ASSOC_TEMP_GA (SEL2), ASSOC_TEMP_GA (SEL3)			
Description	Location weight. This column gives the final weight assigned to the allied arrival by the location program. This column is used primarily for location programs that adaptively weight data by their residuals.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-1.0	f6.3	Y
Range	0.0 <= wgt < 1.0			

3.2.782. WINTID

Tables	WAVEINTERVAL (IDCX)			
Description	Unique waveform interval identification number			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	N
Range	wintid > 0			

3.2.783. XAVPCT

Tables	TIMEFREQ (REB)			
Description	Average ratio of bad points to total of the cross-correlation trace.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	0 <= xavpct <= 1			

3.2.784. XCOEF

Tables	ATTENCOEF (STATIC)			
Description	Constant coefficient in the distance correction formula.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	any valid floating point value			

3.2.785. XCOR

Tables	TIMEFREQ (REB)			
Description	For timefreq, xcor is the zero lag cross-correlation between the three pairs of time-frequency matrices.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f9.4	Y
Range	0 <= xcor <= 1			

3.2.786. YCOEF

Tables	ATTENCOEF (STATIC)			
Description	Geometrical spreading coefficient in the distance correction formula.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	any valid floating point value			

3.2.787. ZAVCEP

Tables	TIMEFREQ (REB)			
Description	Average maximum value in the two-dimensional cepstrum of the vertical component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	zavcep >= 0			

3.2.788. ZAVCOR

Tables	TIMEFREQ (REB)			
Description	Average autocorrelation along the time axis across all frequencies excluding randomized points of the vertical component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	zavcor >= 0			

3.2.789. ZAVPCT

Tables	TIMEFREQ (REB)			
Description	Average ratio of bad points to total of the vertical component traces.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		NOT ALLOWED	f7.2	Y
Range	0 <= zavpct <= 1			

3.2.790. ZCOEF

Tables	ATTENCOEF (STATIC)			
Description	Attenuation coefficient in the distance correction formula.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(24)		-999.0	f7.2	Y
Range	any valid floating point value			

3.3. SHI Trigger Descriptions

3.3.1. DATAREADY_TO_PRODTRACK

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	DATAREADY
Trigger body:	

```
DECLARE

--     site_time: EST for CMR, GMT at the Vienna IDC
       site_time VARCHAR(4) := 'GMT';

--     select_string: Information always selected into table prodtrack
--     at CMR, will resolve to: SELECT distinct pc.prodid, -1,
:new.dataid,
--                          -1, 'NEW', NEW_TIME(SYSDATE,'EST','GMT')
       select_string VARCHAR(1000) := 'defaultvalue';

--     generic strings are modified in mkstring_generic.sql
--     note that these are not fully formed sql statements!

--      Note by CT, 16 July 2003:
--      This trigger requires the temporary table
idcx.arrival_sta_trigger.
--      Dropping this table will invalidate the trigger.

       GET_ARRIVAL_DAY_RANGE_string     VARCHAR(10000) :=
'defaultvalue';
       GET_ARRIVAL_DAY_STA_string VARCHAR(10000) := 'defaultvalue';
       GET_ARRIVAL_INST_RANGE_string    VARCHAR(10000) :=
'defaultvalue';
       GET_ARRIVAL_INST_STA_string      VARCHAR(10000) :=
'defaultvalue';
       GET_ARRIVAL_TIME_STA_string      VARCHAR(10000) :=
'defaultvalue';
       GET_ARRIVAL_TIME_RANGE_string    VARCHAR(10000) :=
'defaultvalue';
       JD_TO_TIME_RANGE_string          VARCHAR(10000) :=
'defaultvalue';
       ORID_JOIN_string          VARCHAR(10000) := 'defaultvalue';
       ORIG_LIMITS_string        VARCHAR(10000) := 'defaultvalue';
       TIME_JOIN_CYCLE_string           VARCHAR(10000) :=
'defaultvalue';
       TIME_JOIN_DAILY_string           VARCHAR(10000) :=
'defaultvalue';
       TIME_JOIN_INSTANT_string  VARCHAR(10000) := 'defaultvalue';
       DETECT_DAY_string         VARCHAR(10000) := 'defaultvalue';
       DETECTION_TIME_string            VARCHAR(10000) :=
'defaultvalue';
       PC_DAILY_string                  VARCHAR(10000) :=
'defaultvalue';
       PC_INSTANT_string         VARCHAR(10000) := 'defaultvalue';
       PC_TIME_string                   VARCHAR(10000) :=
'defaultvalue';
       STA_JOIN_DET_string       VARCHAR(10000) := 'defaultvalue';
       STA_REG_JOIN_DET_string          VARCHAR(10000) :=
'defaultvalue';
       NO_SURPRESS_EMPTY_string  VARCHAR(10000) := 'defaultvalue';
```

```
      UPDATE_TIME_CYCLE_string  VARCHAR(10000) := 'defaultvalue';
      UPDATE_TIME_INSTANT_stringVARCHAR(10000) := 'defaultvalue';

--    these hold new values in row, used to construct query strings

      new_dataid   NUMBER(10) := 0;
      new_tablenameVARCHAR2(24) := 'defaultvalue';
      new_account  VARCHAR2(24) := 'defaultvalue';
      new_tagname  VARCHAR2(12) := 'defaultvalue';
      new_tagid    NUMBER(10) := 0;
      new_tagid2   NUMBER(10) := 0;
      new_data_infoVARCHAR2(24) := 'defaultvalue';

--    These strings hold the final sql queries, and are modified in
--    the files mkstring_origin.sql and mkstring_other.sql

      origin_jdate_string_1           VARCHAR(30000) :=
'defaultvalue';
      origin_jdate_string_2           VARCHAR(30000) :=
'defaultvalue';
      origin_orid_string_1            VARCHAR(30000) :=
'defaultvalue';
      origin_time_inst_string_1 VARCHAR(30000) := 'defaultvalue';
      origin_time_inst_string_2 VARCHAR(30000) := 'defaultvalue';
      origin_time_string_1            VARCHAR(30000) :=
'defaultvalue';
      origin_time_string_2            VARCHAR(30000) :=
'defaultvalue';
      arrival_jdate_string            VARCHAR(30000) :=
'defaultvalue';
      arrival_arid_string       VARCHAR(30000) := 'defaultvalue';
      arrival_time_string_1           VARCHAR(30000) :=
'defaultvalue';
      arrival_time_string_2           VARCHAR(30000) :=
'defaultvalue';
      arrival_time_inst_string_1VARCHAR(30000) := 'defaultvalue';
      arrival_time_inst_string_2VARCHAR(30000) := 'defaultvalue';
      wfdisc_wfid_string        VARCHAR(30000) := 'defaultvalue';
      wftag_jdate_string        VARCHAR(30000) := 'defaultvalue';
      wftag_orid_string         VARCHAR(30000) := 'defaultvalue';
      fileproduct_string        VARCHAR(30000) := 'defaultvalue';
      evchar_string             VARCHAR(30000) := 'defaultvalue';

-- Lines added by CT on 16-JUL-2003
-- Start modification
        delete_temp_table               VARCHAR(30000) :=
'defaultvalue';
        insert_day_string               VARCHAR(30000) :=
'defaultvalue';
        insert_time_string              VARCHAR(30000) :=
'defaultvalue';
-- End modification


BEGIN
      new_dataid   := :new.dataid;
      new_tablename:= :new.tablename;
      new_account  := :new.account;
      new_tagname  := :new.tagname;
      new_tagid    := :new.tagid;
      new_tagid2   := :new.tagid2;
      new_data_info:= :new.data_info;

--    modify select_string
```

	`select_string:= 'SELECT distinct pc.prodid, -1, ' ||new`

3.3.2. FILEPRODUCT_TO_DATAREADY

Type:	AFTER EACH ROW
Event:	INSERT
Table:	FILEPRODUCT
Trigger body:	

```
DECLARE
  Id            NUMBER(8);
BEGIN
        SELECT keyvalue into Id from lastid
                where keyname = 'dataid'
                for update of lastid.keyvalue;
        INSERT into dataready
            SELECT
                lastid.keyvalue+1,
                'fileproduct',
                f.prodtype,
                'fpid',
                :new.fpid,
                -1,
                :new.sta,
                'n',
                :new.lddate
            FROM
                FPDescription f, lastid lastid
            WHERE
                f.typeid=:new.typeid
             AND
                lastid.keyname = 'dataid';
        UPDATE lastid set keyvalue = keyvalue + 1
                where keyname = 'dataid';
END;
```

3.3.3. LOGLASTIDINFO

Type:	BEFORE EACH ROW
Event:	UPDATE
Table:	LASTID
Trigger body:	

```
DECLARE
 v_changeType char(1);
 begin
 v_changeType:='U';
 insert into idcx.lastid_info
( sid,serial#,audsid,dbuser,os_user,machine,terminal,os_process_client
,os_process_server,
  client_program_name,
timestamp,old_keyvalue,new_keyvalue,old_lddate,new_lddate )
select s.sid,s.serial#,
  s.audsid, s.username,s.osuser,
       s.machine, s.terminal,
       s.process,p.spid,
       s.program,sysdate,
       :old.keyvalue,
       :new.keyvalue,
```

```
       :old.lddate,
       :new.lddate
  from v$process p,v$session s
 where p.addr = s.paddr
  and s.audsid = userenv('SESSIONID');

end;
```

3.3.4. WFDISC_ENDTIME

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE
Table:	WFDISC
Trigger body:	

```
DECLARE
PRAGMA AUTONOMOUS_TRANSACTION;
Station VARCHAR2(16);
MaxTime FLOAT(53);
BEGIN
 --- the internal commits require the PRAGMA AUTONOMOUS_TRANSACTION
 BEGIN  -- first block
   SELECT net into Station FROM "STANET" WHERE sta = :new.sta;
   EXCEPTION
     WHEN NO_DATA_FOUND THEN
       raise_application_error(-20001, 'Station '||:new.sta||' not in
stanet!');
 END; --first block
 BEGIN -- second block, other no data exception
    SELECT time into MaxTime FROM "TIMESTAMP"
           WHERE procclass = 'DLTRIGGER' and procname = Station;
    IF :new.endtime > MaxTime THEN
       UPDATE "TIMESTAMP"
             SET time = :new.endtime
             WHERE procclass = 'DLTRIGGER' and procname = Station;
       COMMIT; -- *MUST* commit autonomous transaction here
    END IF;
   EXCEPTION
     WHEN NO_DATA_FOUND THEN
        INSERT INTO "TIMESTAMP"
            VALUES ('DLTRIGGER', Station, :new.endtime, sysdate);
        COMMIT; -- *MUST* commit autonomous transaction here too
 END; -- second block
 -- Do *NOT* catch the "OTHERS" exception here, or the exception
raised by
 -- raise_application_error() is caught here and the trigger succeeds
 -- (the transaction in not rolled back), which is definitely not what
 -- you want!!
END;
```

3.4. SHI Index Descriptions

Table name	Index name	Unique	Index columns
AFFILIATION	AFFNETX	YES	net, sta
AFFILIATION	AFFNETXX	NO	net
AFFILIATION	AFFSTAX	YES	sta, net
ALLOCATE_HOUR	ALLOCATE_HOURX	YES	jdate, hour, action
ALLOW_RESID	ALLOWPHASEX	NO	phase, statype
ALLOW_RESID	ALLOW_RESID_PK	YES	phase, mindelta, statype
AMP3C	AMP3CARIDX	NO	arid
AMP3C	AMP3C_LDDATEX	NO	lddate
AMPDESCRIPT	AMPDESCRIPT_PK	YES	amptype
AMPLITUDE	AMPARIDX	NO	arid
AMPLITUDE	AMPLDDATEX	NO	lddate
AMPLITUDE	AMPLITUDEX	YES	ampid
AMPLITUDE	AMPLITUDE_LDDATEX	NO	lddate
AMPLITUDE	AMPPARIDX	NO	parid
APMA	APMAARIDX	NO	arid
APMA	APMA_LDDATEX	NO	lddate
ARCH_DATA_TYPE	ARCH_DATA_TYPE_PK	YES	archid
ARRIVAL	ARRIVALX	YES	arid
ARRIVAL	ARRIVAL_LDDATEX	NO	lddate
ARRIVAL	ARSTASSX	NO	stassid
ARRIVAL	ARSTTIMEX	NO	sta, time
ARRIVAL	ARTIMEX	NO	time
ASSOC	ASSARIDX	NO	arid, arid
ASSOC	ASSOCX	YES	arid, orid, arid, orid

Table name	Index name	Unique	Index columns
ASSOC	ASSOC_LDDATEX	NO	lddate
ASSOC_TEMP_GA	ASSOC_TEMP_GAX	YES	arid, orid
ASSOC_TEMP_GA	ATGORIDX	NO	orid
ATTENCOEF	SYS_C003779	YES	attenid, sta, ratiotype, chan
CEPPKS	CEPPKS_LDDATEX	NO	lddate
CHANNAME	CHANNAME_NAME_STA_CHAN_REVX	YES	staname, stream, extern_sta, extern_chan, revision
CHAN_GROUPS	CGCLASSNAMEX	NO	class, name
CHAN_GROUPS	CGSTACHANX	NO	sta, chan
CLF	CLF_FRID_FOFFX	YES	frid, foff
CLF	CLF_LDDATEX	NO	lddate
CLF	CLF_TIMESTAMPX	NO	timestamp
CLF	CLF_TIMEX	NO	time
COLORDISC	COLORDISC_PK	YES	colormapid
COMPLEXITY	COMPLEXITY_LDDATEX	NO	lddate
COMPLEXITY	COMPLEXITY_PK	YES	orid, sta, phase
COMPLEXITY	COMPLORIDX	NO	orid
DATAREADY	DATAREADYX	YES	dataid
DATAREADY	DATAREADY_LDDATEX	NO	lddate
DATAREADY	DRTAGIDX	NO	tagid
DATAUSER	DATAUSERX	NO	userid
DERVDISC	DERV_STAX	NO	sta, time
DETECTION	DETECTIONX	YES	arid
DETECTION	DETLDDATEX	NO	lddate
DETECTION	DETTIMEX	NO	time
DISCARD	DISCARDEVIDX	NO	evid
DISCARD	DISCARD_LDDATEX	NO	lddate

Table name	Index name	Unique	Index columns
DSEISGRID	DSEISGRID_PK	YES	grdname, icell
DSEISINDEX	DSEISINDEX_PK	YES	grdname
EVENT	EVENTX	YES	evid
EVENT	EVENT_LDDATEX	NO	lddate
EVENT_CONTROL	EVENT_CONTROLX	YES	orid
EVENT_CONTROL	EVNTCTRLEVIDX	NO	evid
EVSC_HYDRO	ORIDSTANDX	NO	orid, sta
EVSC_PROD	PRODIDORIDNDX	NO	prodid, orid
EVSC_REGIONAL	ORIDSTACHANNDX	NO	orid, sta, chan
FILEPRODUCT	FILEPROD_CHANX	NO	chan
FILEPRODUCT	FILEPROD_DFILEX	NO	dfile
FILEPRODUCT	FILEPROD_ENDTIMEX	NO	endtime
FILEPRODUCT	FILEPROD_FPIDX	YES	fpid
FILEPRODUCT	FILEPROD_LDDATEX	NO	lddate
FILEPRODUCT	FILEPROD_TIMEX	NO	time
FORBEAMAUX	FORBEAMAUX_PK	YES	sta, chan
FPDESCRIPTION	FPDESCRIPTION_PK	YES	typeid
FRAMEPRODUCT	FRAMEPROD_DFILEX	NO	dfile
FRAMEPRODUCT	FRAMEPROD_ENDTIMEX	NO	endtime
FRAMEPRODUCT	FRAMEPROD_FRIDX	YES	frid
FRAMEPRODUCT	FRAMEPROD_LDDATEX	NO	lddate
FRAMEPRODUCT	FRAMEPROD_TIMEX	NO	time
FTPFAILED	FTPMSGIDX	NO	msgid
FTPLOGIN	FTPLOGIN_PK	YES	ftp_address
GA_TAG	GAIDX	NO	id, state
GA_TAG	GA_TAG_PK	YES	objtype, id, state

Table name	Index name	Unique	Index columns
GREGION	GREGIONX	YES	grn
HISTORY	HISTORY_DIR_DFILEX	YES	dir, dfile
HISTORY	HISTORY_LDDATEX	NO	lddate
HYDRO_ARR_GROUP	HYDRO_ARR_GROUP_HIDX	YES	hydro_id
HYDRO_ASSOC	HYDRO_ASSOC_ARIDX	NO	arid, hydro_id
HYDRO_ASSOC	HYDRO_ASSOC_HIDX	NO	hydro_id, arid
HYDRO_FEATURES	HYDARIDX	NO	arid
HYDRO_FEATURES	HYDRO_FEATURES_LDDATEX	NO	lddate
INSTRUMENT	INSTRUMENTX	YES	inid
INTERVAL	IDX$_00001	NO	name, state, class, moddate
INTERVAL	INCLASSX	NO	class, name, endtime
INTERVAL	INENDX	NO	endtime
INTERVAL	INMODX	NO	moddate
INTERVAL	INTERVAL_INTVLIDX	NO	intvlid
LASTID	LASTIDX	YES	keyname
MAPCOLOR	MAPCOLOR_PK	YES	mapid, colormapid
MAPDISC	MAPDISC_PK	YES	mapid
MAPOVER	MAPOVER_PK	YES	mapid, overlayid
MAPPOINT	MAPPOINT_PK	YES	lat, lon, mptype
MIG_DATE	MIG_DATE_PK	YES	procclass, procname
MIG_RULES	MIG_RULES_PK	YES	task_num, query_type, src_tbl
MSGAUX	MGSXMSGIDX	NO	msgid
MSGAUX	MSGAUX_LDDATEX	NO	lddate
MSGAUX	MSGAUX_PK	YES	msgid, msgrow, state_count

Table name	Index name	Unique	Index columns
MSGDATATYPE	MSGDATATYPE_LDDATEX	NO	lddate
MSGDATATYPE	MSGDATATYPE_PK	YES	msgid, foff
MSGDATATYPE	MSGTYPMSGIDX	NO	msgid
MSGDEST	MSGDESTX	YES	msgdid
MSGDEST	MSGDEST_LDDATEX	NO	lddate
MSGDEST	MSGDSTMSGIDZ	NO	msgid
MSGDEST	MSGDSTSTATX	NO	status
MSGDISC	INTIDNX	NO	intid
MSGDISC	MSGDIRX	NO	dir
MSGDISC	MSGDISC_ITIMEX	NO	itime
MSGDISC	MSGIDATENX	NO	idate
MSGDISC	MSGIDNX	NO	msgid
MSGDISC	MSGLDDX	NO	lddate
MSGDISC	MSGSTATNX	NO	status
NA_VALUE	NA_VALUE_PK	YES	attribute
NETMAG	NETMAGX	YES	magid
NETMAG	NETMAG_LDDATEX	NO	lddate
NETMAG	NMORIDX	NO	orid
NETWORK	NETWORK_PK	YES	net
ORIGERR	ORIGERRX	YES	orid
ORIGERR	ORIGERR_LDDATEX	NO	lddate
ORIGERR_TEMP_GA	ORIGERR_TEMP_GAX	YES	orid
ORIGIN	ORIGINX	YES	orid
ORIGIN	ORIGIN_LDDATEX	NO	lddate
ORIGIN	ORTIMEX	NO	time
ORIGIN_TEMP_GA	ORIGIN_TEMP_GAX	YES	orid

Table name	Index name	Unique	Index columns
ORIGIN_TEMP_GA	OTGTIMEX	NO	time
OUTAGE	OTGSTAX	NO	sta, chan, time
OUTAGE	OTGTIMEX	NO	time
OUTAGE	OUTAGEX	YES	otgid
OVERLAYDISC	OVERLAYDISC_PK	YES	overlayid
PARRIVAL	PAREVIDX	NO	evid
PARRIVAL	PARREVIDX	NO	evid
PARRIVAL	PARRIVALX	YES	parid
PARRIVAL	PARRIVAL_LDDATEX	NO	lddate
PARRIVAL	PARRORIDX	NO	orid
PMCC_FEATURES	PMCC_FEAT_ARIX	NO	arid
PROBLEM	PROBLEM_PK	YES	prid
PROBLEMLOG	PROBLEMLOG_PK	YES	plid
PROBLEMMAIL	PROBLEMMAIL_PK	YES	procclass, login
PRODTRACK	INMSGIDX	NO	msgid
PRODTRACK	INPRODIDX	NO	prodid
PRODTRACK	INSTATUSX	NO	status
PRODTRACK	PRODTRACK_LDDATEX	NO	lddate
PRODTRACK	PRODTRACK_PK	YES	prodid, dataid, msgid
PRODUCTCRITERIA	PRODCRITX	YES	prodid
PRODUCTTYPEEVSC	SYS_C0010175	YES	prodid
PRODUCTTYPEORIGIN	PRODUCTTYPEORIGIN_PK	YES	prodid
PRODUCTTYPESTA	PRODUCTTYPESTA_PK	YES	prodid, sta, chan
QCSTATS	QCSTATSIDX	NO	qcstatsid
QCSTATS	QCSTATS_ENDSTCHNX	NO	endtime, sta, chan

Table name	Index name	Unique	Index columns
QCSTATS	QCSTATS_LDDATEX	NO	lddate
QCSTATS	QCSTATS_TIMEX	NO	time
QUARANTINEWFDISC	QWFDIRX	NO	dir, dfile
QUARANTINEWFDISC	QWFDISCX	YES	wfid
QUARANTINEWFDISC	QWFENDTIMEX	NO	endtime
QUARANTINEWFDISC	QWFLDDX	NO	lddate
QUARANTINEWFDISC	QWFSTACHANTIMEX	NO	sta, chan, time
QUARANTINEWFDISC	QWFSTAX	NO	sta, time
QUARANTINEWFDISC	QWFTIMEX	NO	time
REGCOEF	SYS_C003827	YES	rcoefid, rcoeftype
REMARK	REMARKX	YES	commid, lineno
REMARK	REMARK_LDDATEX	NO	lddate
REMARK	REMARK_PK	YES	commid, lineno
REQUEST	REQENDX	NO	end_time
REQUEST	REQMODX	NO	modtime
REQUEST	REQSTATEX	NO	state
REQUEST	REQUESTX	YES	reqid
REQUEST	REQUEST_LDDATEX	NO	lddate
REVAUDIT	REVIDNDX	NO	revid
REVAUDIT	REVTAGNDX	NO	revtagid1, revtagname1
SEISGRID	SEISGRID_PK	YES	grdname, icell
SEISINDEX	SEISINDEX_PK	YES	grdname
SENSOR	SENSSTAX	NO	sta, chan
SITE	SITESTAX	NO	sta
SITEAUX	SITEAUX_PK	YES	sta, chan, time
SITECHAN	SITECHANX	YES	chanid

Table name	Index name	Unique	Index columns
SITECHAN	SITECHAN_PK	YES	sta, chan, ondate
SITECHAN	STCSTAX	NO	sta, chan
SITEPOLL	SITEPOLL_PK	YES	sta, net, chan
SITE_ADDRESS	SITE_ADDRESS_PK	YES	sta
SPLP	SPLPORIDX	NO	orid
SPLP	SPLP_LDDATEX	NO	lddate
SPLP	SPLP_PK	YES	orid, sta
SPVAR	SPVAR_LDDATEX	NO	lddate
SPVAR	SPVAR_PK	YES	arid, fmin, fmax
SREGION	SREGION_PK	YES	srn
STAMAG	SMAMPIDX	NO	ampid
STAMAG	SMARIDX	NO	arid
STAMAG	SMMAGIDX	NO	magid, sta
STAMAG	SMORIDX	NO	orid
STAMAG	STAMAG_LDDATEX	NO	lddate
STAMAG	STAMAG_PK	YES	magid, ampid, sta
STANET	STANETSTAX	YES	sta
STANET	STANETX	YES	net, sta
STASSOC	STASSOC_LDDATEX	NO	lddate
STASSOC	STASSSTASSX	NO	stassid
STASSOC	STASSTIMEX	NO	time
SUBSUSER	SUBSUSERX	YES	userid
THIRDMOM	THIRDMOM_PK	YES	arid
TIMEFREQ	TIMEFREQ_PK	YES	orid, sta

Table name	Index name	Unique	Index columns
TIMESTAMP	TIMESTAMP_PK	YES	procclass, procname
WAVEINTERVAL	WAVEINTERVAL_LDDATEX	NO	lddate
WAVEINTERVAL	WAVEINTERVAL_STA_TIME_ENDTIMEX	YES	station, time, endtime
WAVEINTERVAL	WAVEINTERVAL_TIMEX	NO	time
WAVEINTERVAL	WAVEINTERVAL_WINTIDX	YES	wintid
WEIGHTS	SYS_C003850	YES	phase, statype, net
WFDISC	WDFILEX	NO	dir, dfile
WFDISC	WDSTAX	NO	sta, time
WFDISC	WDTIMEX	NO	time
WFDISC	WDWFIDX	YES	wfid
WFDISC	WFDIRX	NO	dir, dfile
WFDISC	WFDISCX	YES	wfid
WFDISC	WFDISC_LDDATEX	NO	lddate
WFDISC	WFENDTIMEX	NO	endtime
WFDISC	WFLDDX	NO	lddate
WFDISC	WFSTACHANTIMEX	NO	sta, chan, time
WFDISC	WFSTAX	NO	sta, time
WFDISC	WFTIMEX	NO	time
WFTAG	WFTAG_PK	YES	tagname, tagid, wfid
WFTAG	WFTTAGIDX	NO	tagid
WFTAG	WFTTAGX	NO	tagid
WFTAG	WFTWFIDX	NO	wfid
XTAG	XTAGTHATIDNDX	YES	thatid

3.5. SHI Synonym Descriptions

Schema	Synonym	Table	Table Owner
IDCX	AFFILIATION	AFFILIATION	STATIC
	ATTENCOEF	ATTENCOEF	STATIC
	CHANNAME	CHANNAME	STATIC
	INSTRUMENT	INSTRUMENT	STATIC
	NETWORK	NETWORK	STATIC
	PARTICIPATION	PARTICIPATION	STATIC
	REGCOEF	REGCOEF	STATIC
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	STANET	STANET	STATIC
LEB	AFFILIATION	AFFILIATION	STATIC
	AMPDESCRIPT	AMPDESCRIPT	IDCX
	BEAMAUX	BEAMAUX	STATIC
	BREGION_DEF	BREGION_DEF	STATIC
	BREGION_TAB	BREGION_TAB	STATIC
	DERVDISC	DERVDISC	IDCX
	DSEISGRID	DSEISGRID	STATIC
	DSEISINDEX	DSEISINDEX	STATIC
	GREGION	GREGION	STATIC
	IADR_WFTAG	WFTAG	IDCX
	INSTRUMENT	INSTRUMENT	STATIC
	IN_ASSOC	ASSOC	SEL3
	IN_HYDRO_ARR_GROUP	HYDRO_ARR_GROUP	IDCX
	IN_HYDRO_ASSOC	HYDRO_ASSOC	IDCX
	IN_NETMAG	NETMAG	SEL3
	IN_ORIGERR	ORIGERR	SEL3
	IN_ORIGIN	ORIGIN	SEL3
	IN_PARRIVAL	PARRIVAL	SEL3
	IN_STAMAG	STAMAG	SEL3
	LASTID	LASTID	IDCX

Schema	Synonym	Table	Table Owner
	MSGDISC	MSGDISC	IDCX
	NA_VALUE	NA_VALUE	IDCX
	NETWORK	NETWORK	STATIC
	OUT_AMPLITUDE	AMPLITUDE	LEB
	OUT_ARRIVAL	ARRIVAL	LEB
	OUT_ASSOC	ASSOC	LEB
	OUT_EVENT_CONTROL	EVENT_CONTROL	LEB
	OUT_HYDRO_ARR_GROUP	HYDRO_ARR_GROUP	LEB
	OUT_HYDRO_ASSOC	HYDRO_ASSOC	LEB
	OUT_HYDRO_FEATURES	HYDRO_FEATURES	LEB
	OUT_INFRA_FEATURES	INFRA_FEATURES	LEB
	OUT_NETMAG	NETMAG	LEB
	OUT_ORIGERR	ORIGERR	LEB
	OUT_ORIGIN	ORIGIN	LEB
	OUT_PARRIVAL	PARRIVAL	LEB
	OUT_STAMAG	STAMAG	LEB
	PARTICIPATION	PARTICIPATION	STATIC
	PMCC_FEATURES	PMCC_FEATURES	IDCX
	REQUEST	REQUEST	IDCX
	SEISGRID	SEISGRID	STATIC
	SEISINDEX	SEISINDEX	STATIC
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	SREGION	SREGION	STATIC
	WEIGHTS	WEIGHTS	STATIC
	WFDISC	WFDISC	IDCX
	WFTAG	WFTAG	SEL3
MIGRATE	LASTID	LASTID	IDCX
REB	AFFILIATION	AFFILIATION	STATIC
	AMPDESCRIPT	AMPDESCRIPT	IDCX
	BEAMAUX	BEAMAUX	STATIC
	DSEISGRID	DSEISGRID	STATIC

Schema	Synonym	Table	Table Owner
	DSEISINDEX	DSEISINDEX	STATIC
	GREGION	GREGION	STATIC
	INSTRUMENT	INSTRUMENT	STATIC
	LASTID	LASTID	IDCX
	NA_VALUE	NA_VALUE	IDCX
	NETWORK	NETWORK	STATIC
	PARTICIPATION	PARTICIPATION	STATIC
	SEISGRID	SEISGRID	STATIC
	SEISINDEX	SEISINDEX	STATIC
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	SREGION	SREGION	STATIC
	WFDISC	WFDISC	IDCX
SEGMENT	AFFILIATION	AFFILIATION	STATIC
	ARRIVAL	ARRIVAL	REB
	ASSOC	ASSOC	REB
	INSTRUMENT	INSTRUMENT	STATIC
	NETWORK	NETWORK	STATIC
	ORIGERR	ORIGERR	REB
	ORIGIN	ORIGIN	REB
	PARTICIPATION	PARTICIPATION	STATIC
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	STANET	STANET	STATIC
SEL1	AFFILIATION	AFFILIATION	STATIC
	AMP3C	AMP3C	IDCX
	AMPDESCRIPT	AMPDESCRIPT	IDCX
	AMPLITUDE	AMPLITUDE	IDCX
	APMA	APMA	IDCX
	ARRIVAL	ARRIVAL	IDCX

Schema	Synonym	Table	Table Owner
	ASSOC_STAPRO	ASSOC	IDCX
	BEAMAUX	BEAMAUX	STATIC
	DETECTION	DETECTION	IDCX
	GREGION	GREGION	STATIC
	HYDRO_ARR_GROUP	HYDRO_ARR_GROUP	IDCX
	HYDRO_ASSOC	HYDRO_ASSOC	IDCX
	HYDRO_FEATURES	HYDRO_FEATURES	IDCX
	INSTRUMENT	INSTRUMENT	STATIC
	INTERVAL	INTERVAL	IDCX
	LASTID	LASTID	IDCX
	NA_VALUE	NA_VALUE	IDCX
	NETWORK	NETWORK	STATIC
	ORIGERR_STAPRO	ORIGERR	IDCX
	ORIGIN_STAPRO	ORIGIN	IDCX
	PARTICIPATION	PARTICIPATION	STATIC
	REQUEST	REQUEST	IDCX
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	SREGION	SREGION	STATIC
	STASSOC	STASSOC	IDCX
	WFDISC	WFDISC	IDCX
SEL2	AFFILIATION	AFFILIATION	STATIC
	AMP3C	AMP3C	IDCX
	AMPDESCRIPT	AMPDESCRIPT	IDCX
	AMPLITUDE	AMPLITUDE	IDCX
	APMA	APMA	IDCX
	ARRIVAL	ARRIVAL	IDCX
	ASSOC_STAPRO	ASSOC	IDCX
	BEAMAUX	BEAMAUX	STATIC
	DERVDISC	DERVDISC	IDCX
	DETECTION	DETECTION	IDCX
	GA_TAG	GA_TAG	SEL1

Schema	Synonym	Table	Table Owner
	GREGION	GREGION	STATIC
	HYDRO_ARR_GROUP	HYDRO_ARR_GROUP	IDCX
	HYDRO_ASSOC	HYDRO_ASSOC	IDCX
	HYDRO_FEATURES	HYDRO_FEATURES	IDCX
	INSTRUMENT	INSTRUMENT	STATIC
	INTERVAL	INTERVAL	IDCX
	LASTID	LASTID	IDCX
	NA_VALUE	NA_VALUE	IDCX
	NETWORK	NETWORK	STATIC
	ORIGERR_STAPRO	ORIGERR	IDCX
	ORIGIN_STAPRO	ORIGIN	IDCX
	PARTICIPATION	PARTICIPATION	STATIC
	PMCC_FEATURES	PMCC_FEATURES	IDCX
	REQUEST	REQUEST	IDCX
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	SREGION	SREGION	STATIC
	STASSOC	STASSOC	IDCX
	WFDISC	WFDISC	IDCX
SEL3	AFFILIATION	AFFILIATION	STATIC
	AMP3C	AMP3C	IDCX
	AMPDESCRIPT	AMPDESCRIPT	IDCX
	AMPLITUDE	AMPLITUDE	IDCX
	APMA	APMA	IDCX
	ARRIVAL	ARRIVAL	IDCX
	ASSOC_STAPRO	ASSOC	IDCX
	BEAMAUX	BEAMAUX	STATIC
	DERVDISC	DERVDISC	IDCX
	DETECTION	DETECTION	IDCX
	GA_TAG	GA_TAG	SEL1
	GREGION	GREGION	STATIC
	HYDRO_ARR_GROUP	HYDRO_ARR_GROUP	IDCX

Schema	Synonym	Table	Table Owner
	HYDRO_ASSOC	HYDRO_ASSOC	IDCX
	HYDRO_FEATURES	HYDRO_FEATURES	IDCX
	INSTRUMENT	INSTRUMENT	STATIC
	INTERVAL	INTERVAL	IDCX
	LASTID	LASTID	IDCX
	NA_VALUE	NA_VALUE	IDCX
	NETWORK	NETWORK	STATIC
	ORIGERR_STAPRO	ORIGERR	IDCX
	ORIGIN_STAPRO	ORIGIN	IDCX
	PARTICIPATION	PARTICIPATION	STATIC
	PMCC_FEATURES	PMCC_FEATURES	IDCX
	REQUEST	REQUEST	IDCX
	SENSOR	SENSOR	STATIC
	SITE	SITE	STATIC
	SITEAUX	SITEAUX	STATIC
	SITECHAN	SITECHAN	STATIC
	SREGION	SREGION	STATIC
	STASSOC	STASSOC	IDCX
	WFDISC	WFDISC	IDCX
STATIC	LASTID	LASTID	IDCX
	NA_VALUE	NA_VALUE	IDCX

4. RADIONUCLIDE ENTITY RELATIONSHIPS

4.1. Overview

This chapter contains entity-relationship diagrams that illustrate the relationships between database tables for the radionuclide (RN) database schema. The table name is always shown at the top of the table. Keys are shown below the table name. The primary key of a table is indicated with a filled symbol. Optional foreign keys shown by white symbol. Keys consisting of multiple columns are shown with a key symbol next to the first column of the key and the remaining columns are listed beneath with no symbols. All column names are shown below the key section in the diagrams.

4.2. Radionuclide Tables

Figures 24 through 35 illustrate the relationships among the various tables in the radionuclide database. In the following figures, a table is linked by either a single or double arrow. A single arrow indicates that a single record exists in the relationship to the table from where the record came. A double arrow indicates that one or more records exist in the relationship. For example, a single GARDS_SAMPLE_STATUS record exists for each GARDS_SAMPLE_DATA record. However, multiple GARDS_NUCL_IDED records are related to each GARDS_SAMPLE_DATA record.

Figure 24: Radionuclide equipment

Figure 25: Raw sensor data

Figure 26: Raw pulse height data

Figure 27: Raw particulate calibration data

Figure 28: Raw noble gas data

Figure 29: Calculated particulate calibration data

Figure 30: Calculated particulate detection and characterization data

Figure 31: Particulate Parameter and Status Data

Figure 32: Calculated noble gas detection data

Figure 33: Noble gas parameter and status data

Figure 34: RN Analyst comment data

Figure 35: Multiple RN analyst review data

5. RADIONUCLIDE OBJECT DESCRIPTIONS

5.1. Radionuclide Table Descriptions

5.1.1. DEBUG

Owners:	RMSAUTO,RMSMAN
Category:	
Description:	Debugging.

Pk/Fk/I	Column	Storage type	Description	Null?
	mesg	*varchar2(512)*	Debug message	Y

5.1.2. GARDS_ALERTS

Owners:	RMSAUTO
Category:	
Description:	The gards_alerts table contains data describing all radionuclide alert messages received.

Pk/Fk/I	Column	Storage type	Description	Null?
	station_id	*number*	Unique station identifier	Y
	station_code	*char(5)*	Station code parsed from import message	Y
	dtg	*date*	Date alert received	Y
	alert_type	*varchar2(20)*	Category of alert	Y
	alert_text	*varchar2(512)*	Alert message text	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	alert_id	*number*	Unique alert identifier	Y

Triggers:	ALERTS_B_I_U, ALERTS_S_I

5.1.3. GARDS_AUTO_SAMPLE_CAT

Owners:	RMSAUTO
Category:	
Description:	The gards_auto_sample_cat table contains original categorization values from automatic processing.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
PI	name	*varchar2(8)*	Name of the nuclide	N
	method_id	*number*	Method identifier	Y
	category	*number*	Categorization level	Y
	upper_bound	*number*	Upper limit of the amount of a nuclide that can be acceptably found	Y
	lower_bound	*number*	Lower limit of the amount of a nuclide that can be acceptably found	Y
	central_value	*number*	Current estimate of the level of the random process	Y
	delta	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	activity	*number*	Relates to gards_nucl_ided.activ_key	Y
	hold	*number*	Flag that hold categorization bounds fixed and does not update values (0 = proceed, 1 = wait)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_AUTOSAMPCAT(sample_id, name)
Foreign keys:	FK_SID_AUTOSAMPCAT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	AUTO_SAMPLE_CAT_B_I_U, GARDS_SAMPLE_CAT_I_U_D

5.1.4. GARDS_AUX_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_aux_lib table provides additional radionuclide information that is useful to the analyst and used in the parent-progeny calculation.

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	branch_ratio	*number*	Percentage of decays to given decay path	Y
	chain_id	*number*	Decay chain index	Y
	chain_pos	*number*	Position in decay chain	Y
	halflife_act	*varchar2(23)*	Actual half-life	Y
	halflife_act_err	*varchar2(23)*	Uncertainty of halflife_act	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	AUX_LIB_B_I_U

5.1.5. GARDS_AUX_LINES_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_aux_lines_lib table provides additional radionuclide line information that is useful to the analyst and is used in the parent-progeny calculation.

Pk/Fk/I	Column	Storage type	Description	Null?
I	name	*varchar2(8)*	Name of the nuclide	Y
I	energy	*number*	Line energy (keV)	Y
I	abundance_act	*number*	Intensity of nuclear transition	Y
	abundance_act_err	*number*	Uncertainty of abundance_act	Y
	line_comment	*varchar2(500)*	Description of line properties	Y
	line_type	*varchar2(8)*	Type of radiation causing the line	Y
	reference	*varchar2(8)*	Reference for line properties	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	AUX_LINES_LIB_B_I_U

5.1.6. GARDS_BASELINE

Owners:	RMSMAN
Category:	
Description:	The GARDS_BASELINE table contains the receipt for the baseline calculation as general or function of a detector_id and type of sample

Pk/Fk/I	Column	Storage type	Description	Null?
	detector_id	*number*	Unique detector identifier	Y
	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S)	N
	index_no	*number*	Index of the energy bin	N
	energy_low	*number*	Lower energy of the bin	Y
	energy_high	*number*	Higher energy of the bin	Y
	mult	*number*	Multiplicand in the baseline formula	N
	no_of_loops	*number*	Number of loops for this bin of the baseline calculation	N
	moddate	*date*	Date/time at which the row was last modified	Y
	sample_type	*char(1)*	Sample type (P, G)	N

Triggers:	BASELINE_B_I_U

5.1.7. GARDS_BG_CONFIG_PARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_bg_config_params table holds details of beta-gamma configuration parameters and fields used for binning data.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	N
	lc_abscissa	*float(126)*	Confidence interval used in the critical level calculation.	Y
	default_method	*number*	Default method	Y
	min_sample_air_flow	*float(126)*	Minimum accepted air flow from the sample measurement	Y
	min_sample_volume	*float(126)*	Minimum accepted sample volume from the sample measurement	Y
	max_collection_time	*number*	Maximum amount of time accepted for sample collection	Y
	max_acquisition_time	*number*	Maximum amount of time accepted for the measurement	Y
	max_reporting_time	*number*	Maximum amount of time accepted for reporting	Y
	max_mdc	*float(126)*	Maximum MDC value	Y
	min_xe_volume	*float(126)*	Minimum accepted volume	Y
	max_qc_dev	*number*	Maximum deviation of the quality check (integer)	Y
	det_bkgnd_used	*number*	Flag indicating whether or not to take into account the detector background measurements	Y
	gas_bkgnd_used	*number*	Flag indicating whether or not to take into account the gas background measurements	Y
	qc_b_threshold	*number*	Threshold for channels in the histogram used when calculating beta and gamma spectra	Y
	def_det_bkgnd_sample_id	*number*	Default detector background sample	Y
	xe_in_air	*float(126)*	The amount of xenon in air	Y
	def_gas_decay_time	*number*	Default gas decay time	Y
	bin_rows	*number*	Number of rows to merge in binning	Y
	bin_min_count	*number*	Minimum counts in each bin	Y
	bin_gamma_start	*number*	The gamma start offset in histogram	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	bin_beta_start	*number*	The beta start offset in histogram	Y
	bin_max_vector_size	*number*	Maximum size for the bin vector	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_CONFIG_PARAMS(detector_id) targets GARDS_DETECTORS
Triggers:	BG_CONFIG_PARAMS_B_I_U

5.1.8. GARDS_BG_DETECTOR_STD_SPECTRA

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_detector_std_spectra tables holds the relation between a detector and standard spectra. Each detector can have many standard spectra. At the IDC five standard spectra are used.

Pk/Fk/I	Column	Storage type	Description	Null?
	detector_id	*number*	Unique detector identifier	N
	sample_id	*number*	Sample identifier	N
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	BG_DET_STD_SPECTRA_B_I_U

5.1.9. GARDS_BG_EFFICIENCY_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_bg_efficiency_pairs table contains the detection efficiency associated with a beta-gamma coincidence event as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	bg_efficiency	*number*	Detection efficiency of b-g coincidence event	Y
	bg_effic_error	*number*	Uncertainty of bg_efficiency	Y
	roi	*number*	ROI identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_EFFICIENCY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_EFFICIENCY_PAIRS_B_I_U

5.1.10. GARDS_BG_EFFICIENCY_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_efficiency_pairs table contains the detection efficiency associated with a beta-gamma coincidence event as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	bg_efficiency	*number*	Detection efficiency of b-g coincidence event	Y
	bg_effic_error	*number*	Uncertainty of bg_efficiency	Y
	roi	*number*	ROI identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_EFFICIENCY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_EFFICIENCY_PAIRS_B_I_U, GARDS_BG_EFFIC_PRS_I_U_D

5.1.11. GARDS_BG_ENERGY_CAL

Owners:	RMSMAN
Category:	
Description:	The gards_bg_energy_cal table contains the energy-to-channel ratios of a sample.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	beta_coeff1	*number*	Zero shift of the beta ECR equation	Y
	beta_coeff2	*number*	Linear coefficient of the beta ECR equation	Y
	beta_coeff3	*number*	Quadratic coefficient of the beta ECR equation	Y
	gamma_coeff1	*number*	Zero shift of the gamma ECR equation	Y
	gamma_coeff2	*number*	Linear coefficient of the gamma ECR equation	Y
	gamma_coeff3	*number*	Quadratic coefficient of the gamma ECR equation	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C003328(sample_id), SYS_C003378(sample_id)
Foreign keys:	FK_BG_EN_CAL_SID(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ENERGY_CAL_B_I_U

5.1.12. GARDS_BG_ENERGY_CAL

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_energy_cal table contains the energy-to-channel ratios of a sample.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	beta_coeff1	*number*	Zero shift of the beta ECR equation	Y
	beta_coeff2	*number*	Linear coefficient of the beta ECR equation	Y
	beta_coeff3	*number*	Quadratic coefficient of the beta ECR equation	Y
	gamma_coeff1	*number*	Zero shift of the gamma ECR equation	Y
	gamma_coeff2	*number*	Linear coefficient of the gamma ECR equation	Y
	gamma_coeff3	*number*	Quadratic coefficient of the gamma ECR equation	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C003328(sample_id), SYS_C003378(sample_id)
Foreign keys:	FK_BG_EN_CAL_SID(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_BG_ENERGY_CAL_I_U_D, BG_ENERGY_CAL_B_I_U

5.1.13. GARDS_BG_ISOTOPE_CONCS

Owners:	RMSAUTO
Category:	
Description:	Holds results of beta gamma processing, including the Critical level (LC) and the Detection level (LD).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	nuclide_id	*number*	Unique nuclide identifier	N
	conc	*float(126)*	Concentration	Y
	conc_err	*float(126)*	Level of confidence	Y
	mdc	*float(126)*	Minimum detectable concentration	Y
	nid_flag	*number*	Nuclide identification indicator	Y
	lc	*float(126)*	Critical level (counts)	Y
	ld	*float(126)*	Detection level	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ISOTOPE_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ISOTOPE_CONCS_B_I_U, GARDS_BG_ISOTOPE_CONCS_I_U_D

5.1.14. GARDS_BG_ISOTOPE_CONCS

Owners:	RMSMAN
Category:	
Description:	Holds results of beta gamma processing, including the Critical level (LC) and the Detection level (LD).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	nuclide_id	*number*	Unique nuclide identifier	N
	conc	*float(126)*	Concentration	Y
	conc_err	*float(126)*	Level of confidence	Y
	mdc	*float(126)*	Minimum detectable concentration	Y
	nid_flag	*number*	Nuclide identification indicator	Y
	lc	*float(126)*	Critical level (counts)	Y
	ld	*float(126)*	Detection level	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ISOTOPE_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ISOTOPE_CONCS_B_I_U

5.1.15. GARDS_BG_PROC_PARAMS

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_proc_params table holds details of beta-gamma processing parameters and fields used for binning data.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	lc_abscissa	*float(126)*	Confidence level for the calculation of critical level	Y
	method	*number*	The method that has been used (SSM or NCC)	Y
	det_bkgnd_used	*number*	Flag indicating whether or not to take into account the detector background measurements	Y
	gas_bkgnd_used	*number*	Whether the gas background was used	Y
	beta_ecr_order	*number*	Whether the beta ECR is linear or quadratic	Y
	gamma_ecr_order	*number*	Whether the gamma ECR is linear or quadratic	Y
	max_qc_dev	*number*	Threshold value for calibration deviation from qc spectra	Y
	qc_id	*number*	Unique quality control identifier	Y
	xe_in_air	*float(126)*	The amount of xenon in air	Y
	det_bkgnd_id	*number*	Unique identifier for the gas background used in the calculation	Y
	gas_bkgnd_id	*number*	Unique gas background identifier	Y
	qc_b_threshold	*number*	The value that is used to mask the gamma spectrum in QC control of the spectrum	Y
	bin_rows	*number*	Number of rows to merge in binning	Y
	bin_min_count	*number*	Minimum counts in each bin	Y
	bin_gamma_start	*number*	The gamma start offset in histogram	Y
	bin_beta_start	*number*	The beta start offset in histogram	Y
	bin_max_vector_size	*number*	Maximum size for the bin vector	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_PROC_PARAMS_B_I_U, GARDS_BG_PROC_PARAMS_I_U_D

5.1.16. GARDS_BG_PROC_PARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_bg_proc_params table holds details of beta-gamma processing parameters and fields used for binning data.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	lc_abscissa	*float(126)*	Confidence level for the calculation of critical level	Y
	method	*number*	The method that has been used (SSM or NCC)	Y
	det_bkgnd_used	*number*	Flag indicating whether or not to take into account the detector background measurements	Y
	gas_bkgnd_used	*number*	Whether the gas background was used	Y
	beta_ecr_order	*number*	Whether the beta ECR is linear or quadratic	Y
	gamma_ecr_order	*number*	Whether the gamma ECR is linear or quadratic	Y
	max_qc_dev	*number*	Threshold value for calibration deviation from qc spectra	Y
	qc_id	*number*	Unique quality control identifier	Y
	xe_in_air	*float(126)*	The amount of xenon in air	Y
	det_bkgnd_id	*number*	Unique identifier for the gas background used in the calculation	Y
	gas_bkgnd_id	*number*	Unique gas background identifier	Y
	qc_b_threshold	*number*	The value that is used to mask the gamma spectrum in QC control of the spectrum	Y
	bin_rows	*number*	Number of rows to merge in binning	Y
	bin_min_count	*number*	Minimum counts in each bin	Y
	bin_gamma_start	*number*	The gamma start offset in histogram	Y
	bin_beta_start	*number*	The beta start offset in histogram	Y
	bin_max_vector_size	*number*	Maximum size for the bin vector	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_PROC_PARAMS_B_I_U

5.1.17. GARDS_BG_PROC_PARAMS_ROI

Owners:	RMSMAN
Category:	
Description:	Contains details of beta gamma processing regions of interest

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	Region of interest	Y
	halflife_sec	*number*	Half life in seconds	Y
	abundance	*float(126)*	Abundance of line (%)	Y
	nuclide_id	*number*	Unique nuclide identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_PROC_PARAMS_ROI(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_PROC_PARAMS_ROI_B_I_U

5.1.18. GARDS_BG_PROC_PARAMS_ROI

Owners:	RMSAUTO
Category:	
Description:	Contains details of beta gamma processing regions of interest

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	Region of interest	Y
	halflife_sec	*number*	Half life in seconds	Y
	abundance	*float(126)*	Abundance of line (%)	Y
	nuclide_id	*number*	Unique nuclide identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_PROC_PARAMS_ROI(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_PROC_PARAMS_ROI_B_I_U, GARDS_BG_PROC_PARAMS_ROI_I_U_D

5.1.19. GARDS_BG_QC_RESULT

Owners:	RMSMAN
Category:	
Description:	Holds results of beta gamma quality control (QC) processing.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	amplitude	*float(126)*	Amplitude of QC peak	Y
	fwhm	*float(126)*	Full width half maximum (FWHM) value of QC peak	Y
	centroid	*float(126)*	Centroid energy of QC peak	Y
	offset	*float(126)*	Noise offset in QC spectrum	Y
	slope	*float(126)*	Noise slope in QC spectrum	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_QC_RESULT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_QC_RESULT_B_I_U

5.1.20. GARDS_BG_QC_RESULT

Owners:	RMSAUTO
Category:	
Description:	Holds results of beta gamma quality control (QC) processing.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	amplitude	*float(126)*	Amplitude of QC peak	Y
	fwhm	*float(126)*	Full width half maximum (FWHM) value of QC peak	Y
	centroid	*float(126)*	Centroid energy of QC peak	Y
	offset	*float(126)*	Noise offset in QC spectrum	Y
	slope	*float(126)*	Noise slope in QC spectrum	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_QC_RESULT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_BG_QC_RESULT_I_U_D, BG_QC_RESULT_B_I_U

5.1.21. GARDS_BG_ROI_CONCS

Owners:	RMSMAN
Category:	
Description:	Holds results of beta gamma region of interest processing, including the Critical level (LC) and the Detection level (LD).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	Region of interest	Y
	conc	*float(126)*	Concentration	Y
	conc_err	*float(126)*	Level of confidence	Y
	mdc	*float(126)*	Minimum detectable concentration	Y
	nid_flag	*number*	Whether the nuclide was identified or not	Y
	lc	*float(126)*	Critical level (counts)	Y
	ld	*float(126)*	Detection level	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ROI_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ROI_CONCS_B_I_U

5.1.22. GARDS_BG_ROI_CONCS

Owners:	RMSAUTO
Category:	
Description:	Holds results of beta gamma region of interest processing, including the Critical level (LC) and the Detection level (LD).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	Region of interest	Y
	conc	*float(126)*	Concentration	Y
	conc_err	*float(126)*	Level of confidence	Y
	mdc	*float(126)*	Minimum detectable concentration	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	nid_flag	*number*	Whether the nuclide was identified or not	Y
	lc	*float(126)*	Critical level (counts)	Y
	ld	*float(126)*	Detection level	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ROI_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ROI_CONCS_B_I_U, GARDS_BG_ROI_CONCS_I_U_D

5.1.23. GARDS_BG_ROI_COUNTS

Owners:	RMSAUTO
Category:	
Description:	Contains beta gamma region of interest count values

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	roi	*number*	Region of interest	N
	gross	*float(126)*	Counts in ROI before processing	Y
	gross_err	*float(126)*	Confidence level	Y
	gas_bkgnd_gross	*float(126)*	Gas background gross	Y
	gas_bkgnd_count	*float(126)*	Gas background counts	Y
	gas_bkgnd_count_er r	*float(126)*	Confidence level	Y
	det_bkgnd_count	*float(126)*	Detector background counts	Y
	det_bkgnd_count_er r	*float(126)*	Confidence level	Y
	net_count	*float(126)*	Counts in ROI after processing	Y
	net_count_err	*float(126)*	Confidence level	Y
	critical_lev_samp	*float(126)*	Critical level in counts	Y
	critical_lev_gas	*float(126)*	Critical level gas	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ROI_COUNTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ROI_COUNTS_B_I_U, GARDS_BG_ROI_COUNTS_I_U_D

5.1.24. GARDS_BG_ROI_COUNTS

Owners:	RMSMAN
Category:	
Description:	Contains beta gamma region of interest count values

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	roi	*number*	Region of interest	N
	gross	*float(126)*	Counts in ROI before processing	Y
	gross_err	*float(126)*	Confidence level	Y
	gas_bkgnd_gross	*float(126)*	Gas background gross	Y
	gas_bkgnd_count	*float(126)*	Gas background counts	Y
	gas_bkgnd_count_err	*float(126)*	Confidence level	Y
	det_bkgnd_count	*float(126)*	Detector background counts	Y
	det_bkgnd_count_err	*float(126)*	Confidence level	Y
	net_count	*float(126)*	Counts in ROI after processing	Y
	net_count_err	*float(126)*	Confidence level	Y
	critical_lev_samp	*float(126)*	Critical level in counts	Y
	critical_lev_gas	*float(126)*	Critical level gas	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_ROI_COUNTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_ROI_COUNTS_B_I_U

5.1.25. GARDS_BG_STD_SPECTRA

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_std_spectra table holds details of all standard spectra.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	number_of_decays	*number*	Number of decays for this standard spectra	Y
	nuclide_id	*number*	Unique nuclide identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_STD_SPECTRA(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_STD_SPECTRA_B_I_U

5.1.26. GARDS_BG_STD_SPECTRA_RESULT

Owners:	RMSMAN
Category:	
Description:	The gards_bg_std_spectra_result table holds results calculated for each standard spectrum.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	std_spectra_id	*number*	Unique identifier for the standard spectra	N
	gamma_coeff1	*float(126)*	Gamma coefficient 1 (energy to channel)	Y
	gamma_coeff2	*float(126)*	Gamma coefficient 2 (energy to channel)	Y
	gamma_coeff3	*float(126)*	Gamma coefficient 3 (energy to channel)	Y
	beta_coeff1	*float(126)*	Beta coefficient 1 (energy to channel)	Y
	beta_coeff2	*float(126)*	Beta coefficient 2 (energy to channel)	Y
	beta_coeff3	*float(126)*	Beta coefficient 3 (energy to channel)	Y
	estimate	*float(126)*	The estimate (SpectraContribution * NumberOfDecays)	Y
	error	*float(126)*	The variance for the estimate	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_STD_SPECTRA_RESULT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_STD_SPECTRA_RESULT_B_I_U

5.1.27. GARDS_BG_STD_SPECTRA_RESULT

Owners:	RMSAUTO
Category:	
Description:	The gards_bg_std_spectra_result table holds results calculated for each standard spectrum.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	std_spectra_id	*number*	Unique identifier for the standard spectra	N
	gamma_coeff1	*float(126)*	Gamma coefficient 1 (energy to channel)	Y
	gamma_coeff2	*float(126)*	Gamma coefficient 2 (energy to channel)	Y
	gamma_coeff3	*float(126)*	Gamma coefficient 3 (energy to channel)	Y
	beta_coeff1	*float(126)*	Beta coefficient 1 (energy to channel)	Y
	beta_coeff2	*float(126)*	Beta coefficient 2 (energy to channel)	Y
	beta_coeff3	*float(126)*	Beta coefficient 3 (energy to channel)	Y
	estimate	*float(126)*	The estimate (SpectraContribution * NumberOfDecays)	Y
	error	*float(126)*	The variance for the estimate	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_BG_STD_SPECTRA_RESULT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	BG_STD_SPECTRA_RESULT_B_I_U, BG_STD_SPECTRA_RESULT_I_U_D

5.1.28. GARDS_B_ENERGY_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_b_energy_pairs table contains the energy calibration pairs information associated with the beta axis of the spectrum used in rms_xanalyze. The values in the gards_b_energy_pairs and the gards_b_energy_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	decay_mode	*char(1)*	Type of decay; B = beta particle, C = conversion electron	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	cal_error	*number*	Uncertainty of channel (keV)	Y
	channel	*number*	Peak centroid channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_ENERGY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_ENERGY_PAIRS_B_I_U, GARDS_B_ENRGY_PRS_INSERT

5.1.29. GARDS_B_ENERGY_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_b_energy_pairs table contains the energy calibration pairs information associated with the beta axis of the spectrum used in rms_xanalyze. The values in the gards_b_energy_pairs and the gards_b_energy_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	decay_mode	*char(1)*	Type of decay; B = beta particle, C = conversion electron	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	cal_error	*number*	Uncertainty of channel (keV)	Y
	channel	*number*	Peak centroid channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_ENERGY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_ENERGY_PAIRS_B_I_U

5.1.30. GARDS_B_ENERGY_PAIRS_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_b_energy_pairs_orig table contains the original energy calibration pairs information associated with the beta axis of the spectrum as specified in the PHD file. The values in the gards_b_energy_pairs and the gards_b_energy_pairs_orig tables are identical. This table is not used by the rms_xanalyze process.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	decay_mode	*char(1)*	Type of decay; B = beta particle, C = conversion electron	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	cal_error	*number*	Uncertainty of channel	Y
	channel	*number*	Peak centroid channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_ENERGY_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_ENERGY_PAIRS_ORIG_B_I_U

5.1.31. GARDS_B_ENERGY_PAIRS_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_b_energy_pairs_orig table contains the original energy calibration pairs information associated with the beta axis of the spectrum as specified in the PHD file. The values in the gards_b_energy_pairs and the gards_b_energy_pairs_orig tables are identical. This table is not used by the rms_xanalyze process.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	decay_mode	*char(1)*	Type of decay; B = beta particle, C = conversion electron	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	cal_error	*number*	Uncertainty of channel	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	channel	*number*	Peak centroid channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_ENERGY_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_ENERGY_PAIRS_ORIG_B_I_U, GARDS_B_ENRGY_PRS_ORG_I_U_D

5.1.32. GARDS_B_RESOLUTION_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_b_resolution_pairs table contains the resolution calibration pairs information associated with the beta axis of the spectrum. This table is not used by the rms_xanalyze process. The values in the gards_b_resolution_pairs and the gards_b_resolution_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	resolution	*number*	Detector resolution (keV)	Y
	res_energy	*number*	Resolution energy (keV)	Y
	res_error	*number*	Uncertainty of resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_RESOLUTION_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_RESOLUTION_PAIRS_B_I_U, GARDS_B_RES_PAIRS_I_U_D

5.1.33. GARDS_B_RESOLUTION_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_b_resolution_pairs table contains the resolution calibration pairs information associated with the beta axis of the spectrum. This table is not used by the rms_xanalyze process. The values in the gards_b_resolution_pairs and the gards_b_resolution_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	resolution	*number*	Detector resolution (keV)	Y
	res_energy	*number*	Resolution energy (keV)	Y
	res_error	*number*	Uncertainty of resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_RESOLUTION_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_RESOLUTION_PAIRS_B_I_U

5.1.34. GARDS_B_RESOLUTION_PAIRS_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_b_resolution_pairs_orig table contains the original resolution calibration pairs information associated with the beta axis of the spectrum as specified in the PHD file. This table is not used by the rms_xanalyze process. The values in the gards_b_resolution_pairs and the gards_b_resolution_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	resolution	*number*	Detector resolution (keV)	Y
	res_energy	*number*	Resolution energy (keV)	Y
	res_error	*number*	Uncertainty of resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_RESOLUTION_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_RESOLUTION_PAIRS_ORIG_B_I_U, GARDS_B_RES_PRS_ORIG_I_U_D

5.1.35. GARDS_B_RESOLUTION_PAIRS_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_b_resolution_pairs_orig table contains the original resolution calibration pairs information associated with the beta axis of the spectrum as specified in the PHD file. This table is not used by the rms_xanalyze process. The values in the gards_b_resolution_pairs and the gards_b_resolution_pairs_orig tables are identical.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	resolution	*number*	Detector resolution (keV)	Y
	res_energy	*number*	Resolution energy (keV)	Y
	res_error	*number*	Uncertainty of resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_B_RESOLUTION_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	B_RESOLUTION_PAIRS_ORIG_B_I_U

5.1.36. GARDS_CAT_CRITERIA_TESTS

Owners:	RMSMAN
Category:	
Description:	The gards_cat_criteria_tests table contains a list of all category criteria tests. The column active_flag is set to 0 if the test should not be run. A trigger updates the moddate column when any modification is made to another column.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	test_id	*number*	Unique identifier	N
I	test_code	*varchar2(24)*	Unique test code identifier string	N
	test_name	*varchar2(48)*	Test name label for display	N
	lower_limit	*number*	Lower limit bound of the test	Y
	upper_limit	*number*	Upper limit bound of the test	Y
	units	*varchar2(16)*	Unit values for the test bounds	Y
	active_flag	*number*	0 if test is inactive	N
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_CAT_CRIT_TEST_ID(test_id)
Triggers:	CAT_CRITERIA_B_I_U

5.1.37. GARDS_CAT_TEMPLATE

Owners:	RMSMAN
Category:	
Description:	The gards_cat_template table contains categorization initialization information for typical nuclides.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
FI	detector_id	*number*	Unique detector identifier	Y
	name	*varchar2(8)*	Name of the nuclide	Y
	method_id	*number*	Method identifier	Y
	method_type	*number*	Type of categorization analysis to use	Y
	init_begin_date	*date*	Start date for initialization data	Y
	init_end_date	*date*	End date for initialization data	Y
	begin_date	*date*	Date initialization began	Y
	end_date	*date*	Date initialization ended	Y
	analyst	*varchar2(30)*	Name of analyst initializing nuclide categorization	Y
	comment_text	*varchar2(256)*	Comment on the filter	Y
	upper_bound	*number*	Upper limit of the amount of a nuclide that can be acceptably found	Y
	lower_bound	*number*	Lower limit of the amount of a nuclide that can be acceptably found	Y
	central_value	*number*	Current estimate of the level of the random process	Y
	delta	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	abscissa	*number*	Acceptable number of standard deviations away from the central_value where the amount of a nuclide may be found (RDC algorithm)	Y
	dev_tolerance	*number*	Tolerance	Y
	num_samples	*number*	Number of samples used to collect the average and define the standard deviation (RDC algorithm)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	alpha	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	gamma	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	tstat	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	xform	*number*	Code for transform function applied to measurement data	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_DETECTOR(detector_id) targets GARDS_DETECTORS FK_STATION(station_id) targets GARDS_STATIONS
Triggers:	CAT_TEMPLATE_B_I_U

5.1.38. GARDS_CODES

Owners:	RMSMAN
Category:	
Description:	The gards_codes table contains codes for items used throughout radionuclide monitoring system.

Pk/Fk/I	Column	Storage type	Description	Null?
	type	*varchar2(15)*	Category of code	Y
	code	*char(5)*	Code symbol	Y
	description	*varchar2(40)*	Code explanation	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	CODES_B_I_U

5.1.39. GARDS_COMMENTS

Owners:	RMSAUTO
Category:	
Description:	The gards_comments table contains automated analysis and interactive review comments related to peaks in the gards_peaks table and nuclides in the gards_nucl_ided table.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	peak_id	*number*	Peak identifier	Y
	nucl_name	*varchar2(8)*	Nuclide name referenced by comment	Y
PI	comment_id	*number*	Unique comment identifier	N
I	analyst	*varchar2(30)*	Individual (or process) entering comment	Y
	dtg	*date*	Comment entry date	Y
	comment_type	*number*	Comment code	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_COMMENTS(comment_id)
Foreign keys:	FK_COMMENTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	COMMENTS_B_I_U, GARDS_COMMENTS_I_U_D
Slaves:	GARDS_USER_COMMENTS

5.1.40. GARDS_COMMENTS

Owners:	RMSMAN
Category:	
Description:	The gards_comments table contains automated analysis and interactive review comments related to peaks in the gards_peaks table and nuclides in the gards_nucl_ided table.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	peak_id	*number*	Peak identifier	Y
	nucl_name	*varchar2(8)*	Nuclide name referenced by comment	Y
PI	comment_id	*number*	Unique comment identifier	N
I	analyst	*varchar2(30)*	Individual (or process) entering comment	Y
	dtg	*date*	Comment entry date	Y
	comment_type	*number*	Comment code	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_COMMENTS(comment_id)
Foreign keys:	FK_COMMENTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	COMMENTS_B_I_U
Slaves:	GARDS_USER_COMMENTS

5.1.41. GARDS_COMMENTS_DEFS

Owners:	RMSMAN
Category:	
Description:	The gards_comments_defs table contains predefined comments for automated analysis and interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	comment_type	*number*	Predefined comment code	N
	comment_text	*varchar2(256)*	Predefined comment text	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_COMMENTS_DEF(comment_type)
Triggers:	COMMENTS_DEFS_B_I_U

5.1.42. GARDS_CSC_MODCOEFF_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_csc_modcoeff_lib table contains the cascade summing ratios used by rms_analyze.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	detector_id	*number*	Unique detector identifier	N
PI	name	*varchar2(8)*	Name of the nuclide	N
	name_d	*varchar2(8)*	Daughter nuclide name	Y
PI	energy	*number*	Energy of nuclide line	N
	abundance	*number*	Abundance of line (%)	Y
	app_abundance	*number*	Apparent abundance	Y
	app_abundance_err	*number*	Absolute error in apparent abundance	Y
	csc_ratio	*number*	CSC correction factor	Y
	csc_ratio_err	*number*	Error in CSC	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_CSC_MODCOEFF(detector_id, name, energy)
Foreign keys:	FK_CSC_MODCFF_LIB(detector_id) targets GARDS_DETECTORS
Triggers:	CSC_MODCOEFF_LIB_B_I_U

5.1.43. GARDS_DATA_LOG

Owners:	RMSAUTO
Category:	
Description:	The gards_data_log table contains data describing all radionuclide data messages received.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	dlid	*number*	Unique data log identifier	N
I	station_id	*number*	Unique station identifier	Y
I	data_type	*varchar2(10)*	Type of data message (current choices include: ALERT, MET, SOH, SPHD-[X])	Y
	date_received	*date*	Date that sample was received	Y
	dtg	*date*	Date included within message (UTC)	Y
	msg_id	*number*	Unique message identifier	Y
I	status	*char(1)*	Status	Y
	file_size	*number*	Size of data file in bytes	Y
	auth	*number*	Authentication status of the associated message	Y
I	rms_id	*number*	Internal identifier for message; either sample_id for PHDs, the rlr_id for RLRs, or the soh_id for SOHs	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C003392(dlid)
Triggers:	DATA_LOG_B_I_U

5.1.44. GARDS_DBROLE_OWNER

Owners:	RMSMAN
Category:	
Description:	The gards_dbrole_owner table contains information used by the MAR tool to determine the database user that owns the RMS roles.

Pk/Fk/I	Column	Storage type	Description	Null?
	owner	*varchar2(12)*	Name of database user who owns the RMS roles for the MAR tool	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	DBROLE_OWNER_B_I_U

5.1.45. GARDS_DETECTORS

Owners:	RMSMAN
Category:	
Description:	The gards_detectors table contains detector overviews and characteristics.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	detector_id	*number*	Unique detector identifier	N
I	detector_code	*varchar2(9)*	Detector code	Y
	description	*varchar2(80)*	Detector description	Y
	lat	*number*	Latitude (degrees)	Y
	lon	*number*	Longitude (degrees)	Y
	type	*varchar2(6)*	Detector type	Y
	channels	*number*	Number of channels	Y
	rated_efficiency	*number*	Rated efficiency of detector	Y
	rated_resolution	*number*	Rated resolution of detector	Y
	ecal_range_max	*number*	Maximum detector calibration energy (keV)	Y
	date_begin	*date*	Detector initialization date	Y
	date_end	*date*	Detector decommissioning date	Y
	status	*varchar2(2)*	Status of detector, if Y then data from this detector are automatically processed if N then they are not automatically processed	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_DETECTORS(detector_id)
Triggers:	DETECTORS_B_I_U
Slaves:	GARDS_PROC_PARAMS_TEMPLATE, GARDS_BG_CONFIG_PARAMS, GARDS_UPDATE_REFLINES, GARDS_UPDATE_PARAMS_TEMPLATE, GARDS_CAT_TEMPLATE, GARDS_EFFICIENCY_VGSL_PAIRS, GARDS_QCPARAMS, GARDS_QCTARGETS, GARDS_STADET, GARDS_IRF, GARDS_CSC_MODCOEFF_LIB, GARDS_XE_PROC_PARAMS_TEMPLATE

5.1.46. GARDS_DIST_SAMPLE_QUEUE

Owners:	RMSMAN
Category:	
Description:	The gards_dist_sample_queue table contains a list of samples and the user or role to which they are assigned.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	user_id	*number*	User identifier	Y
	role_id	*number*	Role identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_DIST_SAMPLE_QUEUE(sample_id)
Foreign keys:	FK_DIST_SAMPLE_QUEUE(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	DIST_SAMPLE_QUEUE_B_I_U

5.1.47. GARDS_EFFICIENCY_CAL

Owners:	RMSMAN
Category:	
Description:	The gards_efficiency_cal table contains the efficiency calibration equation that is computed for each spectra.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	degree	*number*	Degree of efficiency equation	Y
	efftype	*char(8)*	Efficiency type	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_EFFICIENCY_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	EFFICIENCY_CAL_B_I_U

5.1.48. GARDS_EFFICIENCY_CAL

Owners:	RMSAUTO
Category:	
Description:	The gards_efficiency_cal table contains the efficiency calibration equation that is computed for each spectra.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	degree	*number*	Degree of efficiency equation	Y
	efftype	*char(8)*	Efficiency type	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_EFFICIENCY_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	EFFICIENCY_CAL_B_I_U, GARDS_EFFICIENCY_CAL_I_U_D

5.1.49. GARDS_EFFICIENCY_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_efficiency_pairs table contains efficiency calibration pairs as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	effic_energy	*number*	Efficiency energy (keV)	Y
	efficiency	*number*	Efficiency	Y
	effic_error	*number*	Uncertainty of efficiency	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_EFFICIENCY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	EFFICIENCY_PAIRS_B_I_U

5.1.50. GARDS_EFFICIENCY_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_efficiency_pairs table contains efficiency calibration pairs as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	effic_energy	*number*	Efficiency energy (keV)	Y
	efficiency	*number*	Efficiency	Y
	effic_error	*number*	Uncertainty of efficiency	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_EFFICIENCY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	EFFICIENCY_PAIRS_B_I_U, GARDS_EFFICIENCY_PAIRS_I_U_D

5.1.51. GARDS_EFFICIENCY_VGSL_PAIRS

Owners:	RMSMAN
Category:	
Description:	The GARDS_EFFICIENCY_VGSL_PAIRS table contains the efficiency pairs simulated from VGSL for a given detector_id

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	Y
	effic_energy	*number*	Efficiency energy (keV)	Y
	efficiency	*number*	Efficiency	Y
	effic_error	*number*	Uncertainty of efficiency	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	begin_date	*date*	Initialization date of pairs	Y
	end_date	*date*	Final date of pairs	Y

Foreign keys:	FK_EFFICIENCY_VGSL_PAIRS(detector_id) targets GARDS_DETECTORS
Triggers:	EFF_VGSL_PAIRS_B_I_U

5.1.52. GARDS_ENERGY_CAL

Owners:	RMSMAN
Category:	
Description:	The gards_energy_cal table contains efficiency calibration coefficients associated with spectra. The equation is calculated during energy calibration update.

	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	energy_units	*char(3)*	Energy units	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	cnv_factor	*number*	Conversion to keV	Y
	ape	*number*	Average prediction error, a measure of the average confidence interval for the calculated energy vs. channel regression (ECR) over the range of 100 keV	Y
	det	*number*	Determinant of the weighted design matrix, a measure of the spread of fitted data points and the error in the fitted points	Y
	mse	*number*	Mean-squared error of the fit, a measure of how large the residuals are	Y
	tstat	*number*	Percentage point of the t-statistic for Type I error with a probability set to 99%	Y
	score	*number*	Score used when comparing this ECR to other ECRs, a measure of both the ape and determinant	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_CAL_B_I_U

5.1.53. GARDS_ENERGY_CAL

Owners:	RMSAUTO
Category:	
Description:	The gards_energy_cal table contains efficiency calibration coefficients associated with spectra. The equation is calculated during energy calibration update.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	energy_units	*char(3)*	Energy units	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	cnv_factor	*number*	Conversion to keV	Y
	ape	*number*	Average prediction error, a measure of the average confidence interval for the calculated energy vs. channel regression (ECR) over the range of 100 keV	Y
	det	*number*	Determinant of the weighted design matrix, a measure of the spread of fitted data points and the error in the fitted points	Y
	mse	*number*	Mean-squared error of the fit, a measure of how large the residuals are	Y
	tstat	*number*	Percentage point of the t-statistic for Type I error with a probability set to 99%	Y
	score	*number*	Score used when comparing this ECR to other ECRs, a measure of both the ape and determinant	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_CAL_B_I_U, GARDS_ENERGY_CAL_I_U_D

5.1.54. GARDS_ENERGY_CAL_COV

Owners:	RMSAUTO
Category:	
Description:	The GARDS_ENERGY_CAL_COV table contains the covariance table for each coefficient of the energy calibration from a given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number(22,0)*	Sample identifier	Y
	row_index	*number(10,0)*	Row index for energy calibration	Y
	col_index	*number(10,0)*	Column index for energy calibration	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	coeff	*float(22)*	Energy calibration coefficient	Y

Foreign keys:	FK_ENERGY_CAL_COV(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_ENERGY_CAL_COV_I_U_D, ENERGY_CAL_COV_B_I_U

5.1.55. GARDS_ENERGY_CAL_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_energy_cal_orig table contains original energy calibration equation information associated with samples (calculated using energy pair data).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	energy_units	*char(3)*	Energy units	Y
	cnv_factor	*number*	Conversion to keV	Y
	ape	*number*	Average prediction error, a measure of the average confidence interval for the calculated energy vs. channel regression (ECR) over the range of 100 keV	Y
	det	*number*	Determinant of the weighted design matrix, a measure of the spread of fitted data points and the error in the fitted points	Y
	mse	*number*	Mean-squared error of the fit, a measure of how large the residuals are	Y
	tstat	*number*	Percentage point of the t-statistic for Type I error with a probability set to 99%	Y
	score	*number*	Score used when comparing this ECR to other ECRs, a measure of both the ape and determinant	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_CAL_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_CAL_ORIG_B_I_U, GARDS_ENERGY_CAL_ORIG_I_U_D

5.1.56. GARDS_ENERGY_CAL_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_energy_cal_orig table contains original energy calibration equation information associated with samples (calculated using energy pair data).

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	energy_units	*char(3)*	Energy units	Y
	cnv_factor	*number*	Conversion to keV	Y
	ape	*number*	Average prediction error, a measure of the average confidence interval for the calculated energy vs. channel regression (ECR) over the range of 100 keV	Y
	det	*number*	Determinant of the weighted design matrix, a measure of the spread of fitted data points and the error in the fitted points	Y
	mse	*number*	Mean-squared error of the fit, a measure of how large the residuals are	Y
	tstat	*number*	Percentage point of the t-statistic for Type I error with a probability set to 99%	Y
	score	*number*	Score used when comparing this ECR to other ECRs, a measure of both the ape and determinant	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_CAL_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_CAL_ORIG_B_I_U

5.1.57. GARDS_ENERGY_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_energy_pairs table contains energy calibration pairs information associated with the gamma axis of the spectrum.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	channel	*number*	Peak centroid channel	Y
	cal_error	*number*	Uncertainty of channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_PAIRS_B_I_U, GARDS_ENERGY_PAIRS_I_U_D

5.1.58. GARDS_ENERGY_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_energy_pairs table contains energy calibration pairs information associated with the gamma axis of the spectrum.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	channel	*number*	Peak centroid channel	Y
	cal_error	*number*	Uncertainty of channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_PAIRS_B_I_U

5.1.59. GARDS_ENERGY_PAIRS_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_energy_pairs_orig table contains energy calibration pairs information associated with the gamma axis of the spectrum. These values are as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	channel	*number*	Peak centroid channel	Y
	cal_error	*number*	Uncertainty of channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_PAIRS_ORIG_B_I_U, GARDS_ENERGY_PAIRS_ORIG_I_U_D

5.1.60. GARDS_ENERGY_PAIRS_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_energy_pairs_orig table contains energy calibration pairs information associated with the gamma axis of the spectrum. These values are as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	cal_energy	*number*	Calibration energy (keV)	Y
	channel	*number*	Peak centroid channel	Y
	cal_error	*number*	Uncertainty of channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENERGY_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENERGY_PAIRS_ORIG_B_I_U

5.1.61. GARDS_ENVIRONMENT

Owners:	RMSAUTO
Category:	
Description:	The gards_environment table contains atmospheric conditions and related sample information. This table is applicable to PHDs sent in IMS1.0 format or earlier. It does not apply to messages in IMS2.0 format or later.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	flow_rate	*number*	Flow rate through filter (m3/h)	Y
	pressure	*number*	Outside pressure (mbar)	Y
	temperature	*number*	Outside temperature (degrees Celsius)	Y
	end_env_time	*date*	End date of environment data	Y
	end_env_time_sec	*number*	End time of environment data (seconds)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ENVIRONMENT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ENVIRONMENT_B_I_U

5.1.62. GARDS_FLAGS

Owners:	RMSAUTO
Category:	
Description:	The gards_flags table contains the name and thresholds for each of the tests run during rms_DBflags.

Pk/Fk/I	Column	Storage type	Description	Null?
P	flag_id	*number(8,0)*	Unique identifier for an event screening test	N
	name	*varchar2(32)*	Name of the event screening test	Y
	threshold	*number*	Value against which the results in the test column are compared	Y
	units	*varchar2(16)*	Units of the event screening test	Y
	test	*varchar2(8)*	Calculated result of the test; this value is compared to the threshold value (examples are <, = , >, >=)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C003509(flag_id)
Triggers:	FLAGS_B_I_U

5.1.63. GARDS_FLAGS

Owners:	RMSMAN
Category:	
Description:	The gards_flags table contains the name and thresholds for each of the tests run during rms_DBflags.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	flag_id	*number(8,0)*	Unique identifier for an event screening test	N
	name	*varchar2(32)*	Name of the event screening test	Y
	threshold	*number*	Value against which the results in the test column are compared	Y
	units	*varchar2(16)*	Units of the event screening test	Y
	test	*varchar2(8)*	Calculated result of the test; this value is compared to the threshold value (examples are <, = , >, >=)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C003509(flag_id)
Indexes:	SYS_C003509(flag_id)
Triggers:	FLAGS_B_I_U

5.1.64. GARDS_FPE

Owners:	RMSAUTO,RMSMAN
Category:	
Description:	The gards_fpe table contains one record for each sample associated with a fission product event.

Pk/Fk/I	Column	Storage type	Description	Null?
	fpid	*number*	Unique fission product identifier	Y
	revid	*number*	Revision number	Y
	dtg	*date*	Data product generation date	Y
FI	sample_id	*number*	Sample identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_FPE(sample_id) targets GARDS_SAMPLE_DATA
Indexes:	FPE_NDX(sample_id)
Triggers:	FPE_B_I_U

5.1.65. GARDS_HISTOGRAM

Owners:	RMSAUTO
Category:	
Description:	The gards_histogram table contains information regarding the three dimensional beta-gamma coincidence sample data.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	filename	*varchar2(256)*	Name of file containing histogram data	Y
	g_channels	*number*	Number of gamma channels in histogram	Y
	b_channels	*number*	Number of beta channels in histogram	Y
	g_energy_span	*number*	Gamma energy span of detector calibration (keV)	Y
	b_energy_span	*number*	Beta energy span of detector calibration (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_HISTOGRAM(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	HISTOGRAM_B_I_U

5.1.66. GARDS_INTERVAL

Owners:	RMSAUTO
Category:	
Description:	The gards_interval table contains data used to update RMS data workflow.

Pk/Fk/I	Column	Storage type	Description	Null?
	class	*varchar2(16)*	Station name	N
	name	*varchar2(16)*	Detector/system identifier	N
	start_time	*float(53)*	Start time of interval	Y
	end_time	*float(53)*	End time of interval	Y
	state	*varchar2(16)*	Specific activity of detector/system	Y
I	moddate	*date*	Date/time at which the row was last modified	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	lddate	*date*	Load date	Y
	intvlid	*number*	Unique interval identifier	Y

Triggers:	INTERVAL_S_I, INTERVAL_B_I_U

5.1.67. GARDS_IRF

Owners:	RMSMAN
Category:	
Description:	Thegards_irf table contains the isotope response function, its error and the summing corrections as a function of the energy for a given Nuclide and a given Detector.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	N
	energy	*number*	Energy	Y
	irf	*number*	Isotope response function	Y
	irf_error	*number*	Level of confidence	Y
	nuclide_name	*varchar2(8)*	Nuclide name	Y
	sum_corr	*number*	Sum of the correlation	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	begin_date	*date*	Start date of bound applicability	Y
	end_date	*date*	End date of bound applicability	Y

Foreign keys:	FK_IRF(detector_id) targets GARDS_DETECTORS
Indexes:	IRF_NDX(detector_id)
Triggers:	IRF_B_I_U

5.1.68. GARDS_LAB_CATEGORY_DESCRIPTION

Owners:	RMSMAN
Category:	
Description:	The gards_lab_category_description table describes the different sample categories that can be sent to the IDC.

Pk/Fk/I	Column	Storage type	Description	Null?
	lab_sample_category	*varchar2(2)*	Report sample category (A|B|C|D|E)	Y
	description	*varchar2(256)*	Description of the lab_sample_category	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	LAB_CAT_DESC_B_I_U

5.1.69. GARDS_MDAS2REPORT

Owners:	RMSMAN
Category:	
Description:	The GARDS_MDAS2REPORT table contains the list of nuclides which have their minimum detectable activities reported in radionuclide reports

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL)	Y
	mda_min	*number*	Minimum detectable activity	Y
	mda_max	*number*	Maximum detectable activity	Y
	sample_type	*varchar2(2)*	Sample type (P, G, or B)	Y
	dtg_begin	*date*	Begin date	Y
	dtg_end	*date*	End date	Y
	moddate	*date*	Date/time at which the row was last modified	Y

5.1.70. GARDS_MET_DATA

Owners:	RMSAUTO
Category:	
Description:	The gards_met_data table contains station local meteorological data.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
	ave_humidity	*number*	Average humidity (percent relative humidity)	Y
	ave_out_temp	*number*	Average outside temperature (deg. C)	Y
	ave_pressure	*number*	Average atmospheric pressure.	Y
	ave_wind_dir	*number*	Average wind direction (degrees from North)	Y
	ave_wind_speed	*number*	Average wind speed (km/h)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	total_rainfall	*number*	Total rainfall (mm)	Y
I	start_time	*date*	Start time of measurement	Y
I	end_time	*date*	End time of measurement	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	met_id	*number*	Unique meteorological data identifier	Y

Foreign keys:	FK_MET_DATA(station_id) targets GARDS_STATIONS
Triggers:	MET_DATA_S_I, MET_DATA_B_I_U

5.1.71. GARDS_NOTIFY

Owners:	RMSAUTO
Category:	
Description:	The gards_notify table contains contact information for specific events. When the event occurs a message is automatically sent to the email_addr of the specified recipient.

Pk/Fk/I	Column	Storage type	Description	Null?
	event	*varchar2(10)*	Type of occurrence (choices are: ALERT, FISS_FOUND, NIC_SIG34, NIC_SIG5, QC_ERROR, QC_WARNING, RADOPSCAL, RMS_ADMIN)	N
	email_addr	*varchar2(80)*	Recipient email addresses	Y
	description	*varchar2(80)*	General description of occurrence	Y
	dtg_begin	*date*	Notification initialization date	N
	dtg_end	*date*	Notification termination date	Y
F	poc_id	*number*	Unique point of contact identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_NOTIFY_POC(poc_id) targets GARDS_POC
Triggers:	NOTIFY_B_I_U

5.1.72. GARDS_NOTIFY

Owners:	RMSMAN
Category:	
Description:	The gards_notify table contains contact information for specific events. When the event occurs a message is automatically sent to the email_addr of the specified recipient.

Pk/Fk/I	Column	Storage type	Description	Null?
	event	*varchar2(10)*	Type of occurrence (choices are: ALERT, FISS_FOUND, NIC_SIG34, NIC_SIG5, QC_ERROR, QC_WARNING, RADOPSCAL, RMS_ADMIN)	N
	email_addr	*varchar2(80)*	Recipient email addresses	Y
	description	*varchar2(80)*	General description of occurrence	Y
	dtg_begin	*date*	Notification initialization date	N
	dtg_end	*date*	Notification termination date	Y
FI	poc_id	*number*	Unique point of contact identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_NOTIFY_POC(poc_id) targets GARDS_POC
Indexes:	NOTIFY_NDX(poc_id)
Triggers:	NOTIFY_B_I_U

5.1.73. GARDS_NUCL2QUANTIFY

Owners:	RMSMAN
Category:	
Description:	The gards_nucl2quantify table contains natural radionuclides quantified in radionuclide related reports.

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	dtg_begin	*date*	Start of reporting period	Y
	dtg_end	*date*	End of reporting period	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	NUCL2QUANTIFY_B_I_U

5.1.74. GARDS_NUCL_IDED

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_ided table contains information regarding nuclides identified during interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	nuclide_id	*number*	Nuclide identifier	Y
PI	name	*varchar2(8)*	Name of the nuclide	N
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL) Canberra param: CAM_T_NCLSBHDR	Y
	halflife	*varchar2(23)*	Half-life in seconds (S), hours (H), days (D), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE	Y
	ave_activ	*number*	Average activity for nuclide (mBq/m3) Canberra Parameter: CAM_T_NCLWTMEAN	Y
	ave_activ_err	*number*	Uncertainty in average activity (mBq/m3) Canberra Parameter: CAM_T_NCLWTMERR	Y
	activ_key	*number*	Key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY	Y
	activ_key_err	*number*	Uncertainty of key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLEER	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_G_NCLMDA	Y
	mda_err	*number*	Minimum detectable activity.	Y
	nid_flag	*number*	Nuclide identification indicator (0 = nuclide was not identified by automated analysis; 1 = nuclide was identified by automated analysis; -1 = nuclide was identified initially by automated analysis but later rejected because the concentration was < 0.0; 2 =	Y
	activ_decay	*number*	Activity decay factor Canberra Parameter: CAM_G_NCLDECAY	Y
	activ_decay_err	*number*	Uncertainty in activity decay Canberra Parameter: CAM_F_NCLDECAYERR	Y
	comp_confid	*number*	Computed confidence index Canberra Parameter: CAM_F_NCLCONFID	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	pd_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation.	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	csc_ratio	*number*	Multiplier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Uncertainty in csc_ratio	Y
	csc_mod_flag	*number*	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_NUCL_IDED(sample_id, name)
Foreign keys:	FK_NUCL_IDED(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_IDED_B_I_U

5.1.75. GARDS_NUCL_IDED

Owners:	RMSAUTO
Category:	
Description:	The gards_nucl_ided table contains information regarding nuclides identified during interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	nuclide_id	*number*	Nuclide identifier	Y
PI	name	*varchar2(8)*	Name of the nuclide	N
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL) Canberra param: CAM_T_NCLSBHDR	Y
	halflife	*varchar2(23)*	Half-life in seconds (S), hours (H), days (D), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE	Y
	ave_activ	*number*	Average activity for nuclide (mBq/m3) Canberra Parameter: CAM_T_NCLWTMEAN	Y
	ave_activ_err	*number*	Uncertainty in average activity (mBq/m3) Canberra Parameter: CAM_T_NCLWTMERR	Y
	activ_key	*number*	Key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	activ_key_err	*number*	Uncertainty of key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLEER	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_G_NCLMDA	Y
	mda_err	*number*	Minimum detectable activity.	Y
	nid_flag	*number*	Nuclide identification indicator (0 = nuclide was not identified by automated analysis; 1 = nuclide was identified by automated analysis; -1 = nuclide was identified initially by automated analysis but later rejected because the concentration was < 0.0; 2 =	Y
	activ_decay	*number*	Activity decay factor Canberra Parameter: CAM_G_NCLDECAY	Y
	activ_decay_err	*number*	Uncertainty in activity decay Canberra Parameter: CAM_F_NCLDECAYERR	Y
	comp_confid	*number*	Computed confidence index Canberra Parameter: CAM_F_NCLCONFID	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	pd_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation.	Y
	csc_ratio	*number*	Multiplier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Uncertainty in csc_ratio	Y
	csc_mod_flag	*number*	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_NUCL_IDED(sample_id, name)
Foreign keys:	FK_NUCL_IDED(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_NUCL_IDED_I_U_D, NUCL_IDED_B_I_U, UPDATE_NUCL_ORIG_I_U_D

5.1.76. GARDS_NUCL_IDED_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_nucl_ided_orig table contains information regarding nuclides identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	nuclide_id	*number*	Identification code of associated nuclide	Y
PI	name	*varchar2(8)*	Name of the nuclide	N
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL) Canberra Parameter: CAM_T_NCLSBHDR	Y
	halflife	*varchar2(23)*	Half-life in seconds (S), hours (H), minutes (M), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE	Y
	ave_activ	*number*	Average activity for nuclide (mBq/m3) Canberra Parameter: CAM_T_NCLWTMEAN	Y
	ave_activ_err	*number*	Uncertainty in average activity (mBq/m3) Canberra Parameter: CAM_T_NUCLWTMERR	Y
	activ_key	*number*	Activity of key-line (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY	Y
	activ_key_err	*number*	Uncertainty of key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLERR	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_G_NCLMDA	Y
	mda_err	*number*	Minimum detectable activity error (mBq/m3) Canberra Parameter: CAM_G_NCLMDAERR	Y
	nid_flag	*number*	Nuclide identification indicator (0 or 1)	Y
	activ_decay	*number*	Activity decay factor Canberra Parameter: CAM_G_NCLDECAY	Y
	activ_decay_err	*number*	Uncertainty of activity decay Canberra Parameter: CAM_F_NCLDECAYERR	Y
	comp_confid	*number*	Computed confidence index Canberra Parameter: CAM_F_NCLCONFID	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	pd_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation.	Y
	csc_ratio	*number*	Modifier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Confidence level	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	csc_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the cascade summing.	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_NUCL_IDED_ORIG(sample_id, name)
Foreign keys:	FK_NUCL_IDED_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_IDED_ORIG_B_I_U, GARDS_NUCL_IDED_ORIG_I_U_D

5.1.77. GARDS_NUCL_IDED_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_ided_orig table contains information regarding nuclides identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	nuclide_id	*number*	Identification code of associated nuclide	Y
PI	name	*varchar2(8)*	Name of the nuclide	N
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL) Canberra Parameter: CAM_T_NCLSBHDR	Y
	halflife	*varchar2(23)*	Half-life in seconds (S), hours (H), minutes (M), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE	Y
	ave_activ	*number*	Average activity for nuclide (mBq/m3) Canberra Parameter: CAM_T_NCLWTMEAN	Y
	ave_activ_err	*number*	Uncertainty in average activity (mBq/m3) Canberra Parameter: CAM_T_NUCLWTMERR	Y
	activ_key	*number*	Activity of key-line (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY	Y
	activ_key_err	*number*	Uncertainty of key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLERR	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_G_NCLMDA	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	mda_err	*number*	Minimum detectable activity error (mBq/m3) Canberra Parameter: CAM_G_NCLMDAERR	Y
	nid_flag	*number*	Nuclide identification indicator (0 or 1)	Y
	activ_decay	*number*	Activity decay factor Canberra Parameter: CAM_G_NCLDECAY	Y
	activ_decay_err	*number*	Uncertainty of activity decay Canberra Parameter: CAM_F_NCLDECAYERR	Y
	comp_confid	*number*	Computed confidence index Canberra Parameter: CAM_F_NCLCONFID	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	pd_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation.	Y
	csc_ratio	*number*	Modifier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Confidence level	Y
	csc_mod_flag	*number*	Flag indicating whether or not the nuclide's activity was modified by the cascade summing.	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_NUCL_IDED_ORIG(sample_id, name)
Foreign keys:	FK_NUCL_IDED_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_IDED_ORIG_B_I_U

5.1.78. GARDS_NUCL_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_lib table contains nuclide library information used by the Inspectra when displaying nuclide data for particulate stations.

Pk/Fk/I	Column	Storage type	Description	Null?
	nuclide_id	*number*	Nuclide identifier	Y
	name	*varchar2(8)*	Name of the nuclide	Y
	type	*varchar2(16)*	Nuclide type (ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL)	Y
	halflife_sec	*number*	Half-life in seconds	Y
	halflife	*varchar2(23)*	Half-life	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	halflife_err	*varchar2(23)*	Uncertainty of half-life	Y
	num_lines	*number*	Number of nuclide lines in library	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	nuc_comment	*varchar2(1500)*	Nuclide comment	Y

Triggers:	NUCL_LIB_B_I_U

5.1.79. GARDS_NUCL_LINES_IDED

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_lines_ided table contains auxiliary information regarding lines identified by interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty in line energy Canberra Parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra Parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR	Y
I	peak	*number*	Peak identifier Canberra Parameter: CAM_L_NLPEAK	Y
	activity	*number*	Line activity (mBq/m3) Canberra Parameter: CAM_G_NLACTVTY	Y
	activ_err	*number*	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR	Y
	effic	*number*	Efficiency at energy Canberra Parameter: CAM_F_NLEFFICIENCY	Y
	effic_err	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_NLEFFERR	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_F_NLMDA	Y
	key_flag	*number*	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE	Y
	nuclide_id	*number*	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL	Y
	csc_ratio	*number*	Multiplier used by analysis to update activ_key and mda	Y
	csc_ratio_err	*number*	Uncertainty in csc_ratio	Y
	csc_mod_flag	*number*	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified.	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	id_percent	*number*	Nuclide percentage	Y

Foreign keys:	FK_NUCL_LINES_IDED(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_LINES_IDED_B_I_U

5.1.80. GARDS_NUCL_LINES_IDED

Owners:	RMSAUTO
Category:	
Description:	The gards_nucl_lines_ided table contains auxiliary information regarding lines identified by interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty in line energy Canberra Parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra Parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	peak	*number*	Peak identifier Canberra Parameter: CAM_L_NLPEAK	Y
	activity	*number*	Line activity (mBq/m3) Canberra Parameter: CAM_G_NLACTVTY	Y
	activ_err	*number*	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR	Y
	effic	*number*	Efficiency at energy Canberra Parameter: CAM_F_NLEFFICIENCY	Y
	effic_err	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_NLEFFERR	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_F_NLMDA	Y
	key_flag	*number*	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE	Y
	nuclide_id	*number*	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL	Y
	csc_ratio	*number*	Multiplier used by analysis to update activ_key and mda	Y
	csc_ratio_err	*number*	Uncertainty in csc_ratio	Y
	csc_mod_flag	*number*	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified.	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	id_percent	*number*	Nuclide percentage	Y

Foreign keys:	FK_NUCL_LINES_IDED(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_NUCL_LINES_IDED_I_U_D, NUCL_LINES_IDED_B_I_U, UPDATE_NUCL_ORIG_LINES_I_U_D

5.1.81. GARDS_NUCL_LINES_IDED_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_lines_ided_orig table contains information regarding lines identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N

Pk/Fk/I	Column	Storage type	Description	Null?
	detector_id	*number*	Unique detector identifier	N
I	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty of line energy Canberra Parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra Parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR	Y
I	peak	*number*	Peak associated with line Canberra Parameter: CAM_L_NLPEAK	Y
	activity	*number*	Line activity (mBq/m3)	Y
	activ_err	*number*	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR	Y
	effic	*number*	Efficiency at energy Canberra Parameter: CAM_F_NLEFFICIENCY	Y
	effic_err	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_NLEFFERR	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_F_NLMDA	Y
	key_flag	*number*	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE	Y
	nuclide_id	*number*	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL	Y
	csc_ratio	*number*	Modifier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Confidence level	Y
	csc_mod_flag	*number*	Flag indicating whether or not the nuclide activity was modified by the cascade summing.	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	id_percent	*number*	Nuclide percentage	Y

Foreign keys:	FK_NUCL_LINES_IDED_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_LINES_IDED_ORIG_B_I_U

5.1.82. GARDS_NUCL_LINES_IDED_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_nucl_lines_ided_orig table contains information regarding lines identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	station_id	*number*	Unique station identifier	N
	detector_id	*number*	Unique detector identifier	N
I	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty of line energy Canberra Parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra Parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR	Y
I	peak	*number*	Peak associated with line Canberra Parameter: CAM_L_NLPEAK	Y
	activity	*number*	Line activity (mBq/m3)	Y
	activ_err	*number*	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR	Y
	effic	*number*	Efficiency at energy Canberra Parameter: CAM_F_NLEFFICIENCY	Y
	effic_err	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_NLEFFERR	Y
	mda	*number*	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_F_NLMDA	Y
	key_flag	*number*	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE	Y
	nuclide_id	*number*	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL	Y
	csc_ratio	*number*	Modifier used by analysis to update active_key and mda	Y
	csc_ratio_err	*number*	Confidence level	Y
	csc_mod_flag	*number*	Flag indicating whether or not the nuclide	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			activity was modified by the cascade summing.	
	moddate	*date*	Date/time at which the row was last modified	Y
	id_percent	*number*	Nuclide percentage	Y

Foreign keys:	FK_NUCL_LINES_IDED_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	NUCL_LINES_IDED_ORIG_B_I_U, GARDS_NCL_LNS_IDD_ORG_I_U_D

5.1.83. GARDS_NUCL_LINES_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_nucl_lines_lib table contains library information used in particulate nuclide identification process.

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty of line energy Canberra Parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra Parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR	Y
	key_flag	*number*	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE	Y
	nuclide_id	*number*	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	linecomment	*varchar2(1500)*	Comment associated with nuclide line	Y

Triggers:	NUCL_LINES_LIB_B_I_U

5.1.84. GARDS_PEAKS

Owners:	RMSMAN
Category:	
Description:	The gards_peaks table contains information regarding peaks identified during interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
I	peak_id	*number*	Peak identifier	Y
	centroid	*number*	Peak centroid (channels) Canberra Parameter: CAM_F_PSCENTRD	Y
	centroid_err	*number*	Uncertainty of peak centroid Canberra Parameter: CAM_F_PSDCENTRD	Y
I	energy	*number*	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY	Y
	energy_err	*number*	Uncertainty of energy (keV) Canberra Parameter: CAM_F_PSDENERGY	Y
	left_chan	*number*	Left channel of peak Canberra Parameter: CAM_L_PSLEFT	Y
	width	*number*	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH	Y
	back_count	*number*	Continuum background counts Canberra Parameter: CAM_F_PSBACKGND	Y
	back_uncer	*number*	Uncertainty in continuum background counts Canberra Parameter: CAM_F_PSBACK	Y
	fwhm	*number*	Full width at half maximum Canberra Parameter: CAM_F_PSFWHM	Y
	fwhm_err	*number*	Uncertainty of full width at half maximum Canberra Parameter: CAM_F_PSDFWHM	Y
	area	*number*	Peak area (counts) Canberra Parameter: CAM_F_PSAREA	Y
	area_err	*number*	Uncertainty of peak area (counts) Canberra Parameter: CAM_F_PSDAREA	Y
	original_area	*number*	Original peak area (counts) Canberra Parameter: CAM_F_PSORIGAREA	Y
	original_uncer	*number*	Uncertainty of original peak area (counts)	Y
	counts_sec	*number*	Counts per second	Y
	counts_sec_err	*number*	Error in counts per second	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	efficiency	*number*	Efficiency Canberra Parameter: CAM_F_PSEFF	Y
	eff_error	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_PSEFERR	Y
	back_channel	*number*	Number of average background channels Canberra Parameter: CAM_F_PSBKCHAN	Y
I	ided	*number*	Peak identification indicator(0 or 1)	Y
	fitted	*number*	Peak fit indicator Canberra Parameter: CAM_L_PSPPFIT	Y
	multiplet	*number*	Multiplet peak indicator Canberra Parameter: CAM_L_PSPMULT	Y
	lc	*number*	Critical level (counts)	Y
	peak_sig	*number*	Peak significance, peak area divided by Lc	Y
	peak_tol	*number*	Per peak energy tolerance; approximates the energy tolerance at a given peak	Y
	pss	*number*	Peak search significance parameter Canberra parameter: CAM_F_PSSIGNIF	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	detectability	*number*	Detectability	Y

Foreign keys:	FK_PEAKS(sample_id) targets GARDS_SAMPLE_DATA
Indexes:	PEAKS_NDX(sample_id, peak_id, energy, ided)
Triggers:	PEAKS_B_I_U

5.1.85. GARDS_PEAKS

Owners:	RMSAUTO
Category:	
Description:	The gards_peaks table contains information regarding peaks identified during interactive review.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
I	peak_id	*number*	Peak identifier	Y
	centroid	*number*	Peak centroid (channels) Canberra Parameter: CAM_F_PSCENTRD	Y
	centroid_err	*number*	Uncertainty of peak centroid Canberra Parameter: CAM_F_PSDCENTRD	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	energy	*number*	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY	Y
	energy_err	*number*	Uncertainty of energy (keV) Canberra Parameter: CAM_F_PSDENERGY	Y
	left_chan	*number*	Left channel of peak Canberra Parameter: CAM_L_PSLEFT	Y
	width	*number*	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH	Y
	back_count	*number*	Continuum background counts Canberra Parameter: CAM_F_PSBACKGND	Y
	back_uncer	*number*	Uncertainty in continuum background counts Canberra Parameter: CAM_F_PSBACK	Y
	fwhm	*number*	Full width at half maximum Canberra Parameter: CAM_F_PSFWHM	Y
	fwhm_err	*number*	Uncertainty of full width at half maximum Canberra Parameter: CAM_F_PSDFWHM	Y
	area	*number*	Peak area (counts) Canberra Parameter: CAM_F_PSAREA	Y
	area_err	*number*	Uncertainty of peak area (counts) Canberra Parameter: CAM_F_PSDAREA	Y
	original_area	*number*	Original peak area (counts) Canberra Parameter: CAM_F_PSORIGAREA	Y
	original_uncer	*number*	Uncertainty of original peak area (counts)	Y
	counts_sec	*number*	Counts per second	Y
	counts_sec_err	*number*	Error in counts per second	Y
	efficiency	*number*	Efficiency Canberra Parameter: CAM_F_PSEFF	Y
	eff_error	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_PSEFERR	Y
	back_channel	*number*	Number of average background channels Canberra Parameter: CAM_F_PSBKCHAN	Y
I	ided	*number*	Peak identification indicator(0 or 1)	Y
	fitted	*number*	Peak fit indicator Canberra Parameter: CAM_L_PSPPFIT	Y
	multiplet	*number*	Multiplet peak indicator Canberra Parameter: CAM_L_PSPMULT	Y
	lc	*number*	Critical level (counts)	Y
	peak_sig	*number*	Peak significance, peak area divided by Lc	Y
	peak_tol	*number*	Per peak energy tolerance; approximates the	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			energy tolerance at a given peak	
	pss	*number*	Peak search significance parameter Canberra parameter: CAM_F_PSSIGNIF	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	detectability	*number*	Detectability	Y

Foreign keys:	FK_PEAKS(sample_id) targets GARDS_SAMPLE_DATA
Indexes:	PEAKS_NDX(sample_id, peak_id, energy, ided)
Triggers:	GARDS_PEAKS_I_U_D, PEAKS_B_I_U, UPDATE_PEAKS_ORIG_I_U_D

5.1.86. GARDS_PEAKS_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_peaks_orig table contains information regarding peaks identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
I	peak_id	*number*	Peak identifier	Y
	centroid	*number*	Peak centroid (channels) Canberra Parameter: CAM_F_PSCENTRD	Y
	centroid_err	*number*	Uncertainty of peak centroid (channels) Canberra Parameter: CAM_F_PSDCENTRD	Y
I	energy	*number*	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY	Y
	energy_err	*number*	Uncertainty of energy (keV) Canberra Parameter: CAM_F_PSDENERGY	Y
	left_chan	*number*	Left channel of peak Canberra Parameter: CAM_L_PSLEFT	Y
	width	*number*	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH	Y
	back_count	*number*	Continuum background counts Canberra Parameter: CAM_F_PSBACKGND	Y
	back_uncer	*number*	Uncertainty of continuum background counts Canberra Parameter: CAM_F_PSDBACK	Y
	fwhm	*number*	Full width at half maximum Canberra Parameter: CAM_F_PSFWHM	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	fwhm_err	*number*	Uncertainty of full width at half maximum Canberra Parameter: CAM_PSDFWHM	Y
	area	*number*	Peak area (counts) Canberra Parameter: CAM_F_PSAREA	Y
	area_err	*number*	Uncertainty of peak area (counts) Canberra Parameter: CAM_F_PSDAREA	Y
	original_area	*number*	Original peak area (counts) Canberra Parameter: CAM_PSORIGAREA	Y
	original_uncer	*number*	Uncertainty of original peak area (counts) Canberra Parameter: CAM_PSORIGERR	Y
	counts_sec	*number*	Counts per second	Y
	counts_sec_err	*number*	Error in counts per second	Y
	efficiency	*number*	Efficiency Canberra Parameter: CAM_F_PSEFF	Y
	eff_error	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_PSEFERR	Y
	back_channel	*number*	Number of average background channels Canberra Parameter: CAM_L_PSBKCHAN	Y
I	ided	*number*	Peak identification indicator (0 or 1)	Y
	fitted	*number*	Peak fit indicator Canberra Parameter: CAM_F_PSPPFIT	Y
	multiplet	*number*	Multiplet peak indicator Canberra Parameter: CAM_PSPMULT	Y
	lc	*number*	Critical level (counts)	Y
	peak_sig	*number*	Peak significance, peak area divided by lc	Y
	peak_tol	*number*	Per peak energy tolerance; approximates the energy tolerance at a given peak	Y
	pss	*number*	Peak search significance parameter Canberra parameter: CAM_F_PSSIGNIF	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	detectability	*number*	Detectability	Y

Foreign keys:	FK_PEAKS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PEAKS_ORIG_B_I_U

5.1.87. GARDS_PEAKS_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_peaks_orig table contains information regarding peaks identified during automated analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
I	peak_id	*number*	Peak identifier	Y
	centroid	*number*	Peak centroid (channels) Canberra Parameter: CAM_F_PSCENTRD	Y
	centroid_err	*number*	Uncertainty of peak centroid (channels) Canberra Parameter: CAM_F_PSDCENTRD	Y
I	energy	*number*	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY	Y
	energy_err	*number*	Uncertainty of energy (keV) Canberra Parameter: CAM_F_PSDENERGY	Y
	left_chan	*number*	Left channel of peak Canberra Parameter: CAM_L_PSLEFT	Y
	width	*number*	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH	Y
	back_count	*number*	Continuum background counts Canberra Parameter: CAM_F_PSBACKGND	Y
	back_uncer	*number*	Uncertainty of continuum background counts Canberra Parameter: CAM_F_PSDBACK	Y
	fwhm	*number*	Full width at half maximum Canberra Parameter: CAM_F_PSFWHM	Y
	fwhm_err	*number*	Uncertainty of full width at half maximum Canberra Parameter: CAM_PSDFWHM	Y
	area	*number*	Peak area (counts) Canberra Parameter: CAM_F_PSAREA	Y
	area_err	*number*	Uncertainty of peak area (counts) Canberra Parameter: CAM_F_PSDAREA	Y
	original_area	*number*	Original peak area (counts) Canberra Parameter: CAM_PSORIGAREA	Y
	original_uncer	*number*	Uncertainty of original peak area (counts) Canberra Parameter: CAM_PSORIGERR	Y
	counts_sec	*number*	Counts per second	Y
	counts_sec_err	*number*	Error in counts per second	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	efficiency	*number*	Efficiency Canberra Parameter: CAM_F_PSEFF	Y
	eff_error	*number*	Uncertainty of efficiency Canberra Parameter: CAM_F_PSEFERR	Y
	back_channel	*number*	Number of average background channels Canberra Parameter: CAM_L_PSBKCHAN	Y
I	ided	*number*	Peak identification indicator (0 or 1)	Y
	fitted	*number*	Peak fit indicator Canberra Parameter: CAM_F_PSPPFIT	Y
	multiplet	*number*	Multiplet peak indicator Canberra Parameter: CAM_PSPMULT	Y
	lc	*number*	Critical level (counts)	Y
	peak_sig	*number*	Peak significance, peak area divided by lc	Y
	peak_tol	*number*	Per peak energy tolerance; approximates the energy tolerance at a given peak	Y
	pss	*number*	Peak search significance parameter Canberra parameter: CAM_F_PSSIGNIF	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	detectability	*number*	Detectability	Y

Foreign keys:	FK_PEAKS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PEAKS_ORIG_B_I_U, GARDS_PEAKS_ORIG_I_U_D

5.1.88. GARDS_PERMISSIONS

Owners:	RMSMAN
Category:	
Description:	The gards_permissions table contains a list of permissions that can be manipulated by the MAR tool.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	permission_id	*number*	Unique permission identifier	N
	permission_name	*varchar2(30)*	String name of a permission	N
	db_name	*varchar2(35)*	Name of corresponding role in the database	N
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_PERMISSIONS(permission_id)
Triggers:	PERMISSIONS_B_I_U
Slaves:	GARDS_ROLES_PERMISSIONS

5.1.89. GARDS_POC

Owners:	RMSMAN
Category:	
Description:	The gards_poc table contains information for radionuclide monitoring system points of contact (POC).

Pk/Fk/I	Column	Storage type	Description	Null?
PI	pocid	*number*	Unique point of contact identifier	N
	email_address	*varchar2(50)*	Email address of point of contact	N
	first_name	*varchar2(20)*	First name of point of contact	Y
	last_name	*varchar2(50)*	Last name of point of contact	Y
	telephone	*varchar2(20)*	Telephone number of point of contact	Y
	address	*varchar2(500)*	Address of point of contact	Y
	additional_info	*varchar2(500)*	Additional information for point of contact	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_POC(pocid)
Indexes:	PK_POC(pocid)
Triggers:	POC_B_I_U
Slaves:	GARDS_NOTIFY

5.1.90. GARDS_PROCESSING_ERRORS

Owners:	RMSMAN
Category:	
Description:	The gards_processing_errors table contains sample information, if applicable, and message information for RMS messages that have failed processing.

Pk/Fk/I	Column	Storage type	Description	Null?
	rms_id	*number*	Sequence number of associated data type (e.g., RMSSOH, SAMPLEPHD, etc.). If SAMPLEPHD, the sequence refers to a sample_id; if RMSSOH, the RMS ID refers to an	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			soh_id.	
	sample_ref_id	*varchar2(32)*	Sample reference identification	Y
	msg_id	*number*	Message identifier	Y
	filename	*varchar2(512)*	Import message filename	Y
	station_code	*varchar2(5)*	Station code parsed from import message	Y
	detector_code	*varchar2(9)*	Detector code	Y
	data_type	*varchar2(12)*	Data type parsed from message header (e.g., RMSSOH, MET, SAMPLEPHD, etc.)	Y
	error_text	*varchar2(2048)*	Text associated with the error	Y
	entry_date	*date*	Date and time of error entry	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	PROCESSING_ERRORS_B_I_U

5.1.91. GARDS_PROC_PARAMS_TEMPLATE

Owners:	RMSMAN
Category:	
Description:	The gards_proc_params_template table is a template data record that contains parameters used by Automatic Analysis process software for peak search and nuclide identification. These parameters are used unless overridden at the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
FI	detector_id	*number*	Detector identifier (relates to gards_detectors.detector_id) Canberra Parameter: CAM_L_SSPI6	Y
	sample_type	*varchar2(2)*	Type of sample Canberra Parameter: CAM_T_SSPRSTR1	Y
	data_type	*char(1)*	Spectral data type	Y
	spectral_qualifier	*varchar2(5)*	Indicator of full or preliminary sample	Y
	begin_date	*date*	Initialization date of parameters	Y
	end_date	*date*	Termination date of parameters	Y
	do_back	*number*	Background subtraction indicator Canberra Parameter: CAM_L_PRNOBACKCOR	Y
	back_data_type	*char(1)*	Blank (B), or detector background (D) spectral	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			type	
	nuclide_lib	*varchar2(96)*	Nuclide library to be used during analysis	Y
	mda_level	*number*	MDA confidence factor (percent) Canberra Parameter: CAM_F_MDACONFID	Y
	nid_confid	*number*	NID confidence factor (percent) Canberra Parameter: CAM_F_CONFID	Y
	squant_err	*number*	Error in sample quantity Canberra Parameter: CAM_F_SQUANTERR	Y
	buildtype	*varchar2(8)*	Flag for Canberra: activity (NONE), or concentration (BUILD), calculations	Y
	peak_sense	*number*	Peak search sensitivity Canberra Parameter: CAM_F_SENSITIVITY	Y
	peak_start	*number*	Peak search start (keV) Canberra Parameter: CAM_L_PEAKSTART	Y
	peak_end	*number*	Peak search end (keV) Canberra Parameter: CAM_L_PEAKEND	Y
	fwhm_mult_width	*number*	Number of FWHMs to search to determine multiplets Canberra Parameter: CAM_F_PRFWHMPKMULT	Y
	left_fwhm_lim	*number*	Left ROI FWHM limit Canberra Parameter: CAM_F_PRFWHMPKLEFT	Y
	right_fwhm_lim	*number*	Right ROI FWHM limit Canberra Parameter: CAM_F_PRFWHMPKRIGHT	Y
	back_chan	*number*	Number of continuous channels Canberra Parameter: CAM_L_PRNBKCHN	Y
	back_type	*varchar2(6)*	Background type Canberra Parameter: CAM_T_ROIPSBTYP	Y
	fit_singlets	*number*	Fit singlets flag, Canberra Parameter: CAM_L_PRFIT	Y
	crit_level	*number*	Critical level test indicator, Canberra Parameter: CAM_L_CRITLEVEL	Y
	fix_fwhm	*number*	Fixed FWHM during peak search flag Canberra Parameter: CAM_L_PRFIXFWHM	Y
	area_reject	*number*	Indicator of whether or not to reject peaks with zero area indicator Canberra Parameter: CAM_L_PRREJECTPEAKS	Y
	mdc_width	*number*	Baseline width used for MDA calculation Canberra param: CAM_F_VPWIDTH	Y
	lc_abscissa	*number*	Abscissas of the normal distribution	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			corresponding to a confidence level; a value of 1.645 corresponds to a 95% confidence interval for the peak critical level	
	do_pd_calc	*number*	Flag indicates if the parent/daughter calculations should be run; 1 = run calculations, 0 = do not run calculations	Y
	do_csc	*number*	Flag to turn off cascade summing correction	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_PPTEMPL_DET(detector_id) targets GARDS_DETECTORS FK_PPTEMPL_STA(station_id) targets GARDS_STATIONS
Triggers:	PROC_PARAMS_TEMPLATE_B_I_U

5.1.92. GARDS_PRODUCT

Owners:	RMSMAN
Category:	
Description:	The gards_product table temporarily stores radionuclide reviewed products for quality assurance purposes.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	foff	*number*	Offset into the data file (bytes)	Y
	dsize	*number*	Size of data file in bytes	Y
	dir	*varchar2(256)*	Full path to the data file referred to in the DFILE column	Y
	dfile	*varchar2(32)*	Name of file containing the data	Y
	author	*varchar2(30)*	User name of Radionuclide Officer	Y
	revision	*number*	Revision identifier	Y
	typeid	*number*	Unique type identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_PRODUCT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PRODUCT_B_I_U

5.1.93. GARDS_PRODUCT

Owners:	RMSAUTO
Category:	
Description:	The gards_product table temporarily stores radionuclide reviewed products for quality assurance purposes.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	foff	*number*	Offset into the data file (bytes)	Y
	dsize	*number*	Size of data file in bytes	Y
	dir	*varchar2(256)*	Full path to the data file referred to in the DFILE column	Y
	dfile	*varchar2(32)*	Name of file containing the data	Y
	author	*varchar2(30)*	User name of Radionuclide Officer	Y
	revision	*number*	Revision identifier	Y
	typeid	*number*	Unique type identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_PRODUCT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PRODUCT_B_I_U, GARDS_PRODUCT_I_U_D, GARDS_PROD_TO_FILEPROD

5.1.94. GARDS_PRODUCT_TYPE

Owners:	RMSMAN
Category:	
Description:	The gards_product_type table lists the different types of radionuclide reviewed products.

Pk/Fk/I	Column	Storage type	Description	Null?
	typeid	*number*	Unique product type identifier	Y
	prodtype	*varchar2(12)*	Product type	Y
	name	*varchar2(64)*	Product name	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	PRODUCT_TYPE_B_I_U

5.1.95. GARDS_QAT_CONFIG

Owners:	RMSMAN
Category:	
Description:	The gards_qat_config table contains q_time and t_time used by rms_QAT_auto; there is only one record in the database.

Pk/Fk/I	Column	Storage type	Description	Null?
	t_time	*number*	Number of minutes after gards_sample_status.entry_date that rms_QAT_auto waits before releasing a sample	Y
	min_t_time	*number*	Minimum allowable value for t_time	Y
	max_t_time	*number*	Maximum allowable value for t_time	Y
	q_time	*number*	Number of minutes after gards_sample_status.review_date that rms_QAT_auto waits before releasing a sample	Y
	poll_time	*number*	Number of minutes rms_QAT sleeps between each database poll	Y
	allow_release	*number*	Flag indicating whether or not release is permitted	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	QAT_CONFIG_B_I_U

5.1.96. GARDS_QAT_NOTIFY

Owners:	RMSMAN
Category:	
Description:	The gards_qat_notify table contains comments created by rms_QAT.

Pk/Fk/I	Column	Storage type	Description	Null?
	sample_id	*number*	Sample identifier	Y
	comment_type	*number*	Type of analyst comments.	Y
	comment_text	*varchar2(2048)*	Text of the comment	Y
	nucl_name	*varchar2(8)*	Nuclide name referenced by comment	Y
	energy	*number*	Energy (keV) referenced by comment	Y
	dtg	*date*	Date comment was entered	Y
	author	*varchar2(30)*	User name of Radionuclide Officer	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	recipient_list	*varchar2(128)*	Comma-separated list of users to whom the notification was sent	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	QAT_NOTIFY_B_I_U

5.1.97. GARDS_QAT_QUERY_FILTER

Owners:	RMSMAN
Category:	
Description:	Gards_qat_query_filter

Pk/Fk/I	Column	Storage type	Description	Null?
	user_id	*number*	Foreign key to gards_users	Y
	min_sample_id	*number*	Foreign key	Y
	max_sample_id	*number*	Foreign key	Y
	status_list	*varchar2(128)*	Comma-separated list of statuses	Y
	station_list	*varchar2(1024)*	Comma-separated list of stations	Y
	include_stations	*number*	Flag to include or exclude stations	Y
	category_list	*varchar2(32)*	Comma-separated list of categories	Y
	review_cat	*number*	Review category	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	QAT_QUERY_FILTER_B_I_U

5.1.98. GARDS_QCHISTORY

Owners:	RMSAUTO
Category:	
Description:	The gards_qchistory table contains output messages from quality control tests for each sample.

Pk/Fk/I	Column	Storage type	Description	Null?
	station_id	*number*	Unique station identifier	Y
	detector_id	*number*	Unique detector identifier	Y
FI	sample_id	*number*	Sample identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	state	*varchar2(128)*	Text results of quality control hypothesis tests	Y
	lddate	*date*	Date of quality control processing	Y

Foreign keys:	FK_QCHISTORY(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	GARDS_QCHISTORY_I_U_D

5.1.99. GARDS_QCHISTORY

Owners:	RMSMAN
Category:	
Description:	The gards_qchistory table contains output messages from quality control tests for each sample.

Pk/Fk/I	Column	Storage type	Description	Null?
	station_id	*number*	Unique station identifier	Y
	detector_id	*number*	Unique detector identifier	Y
FI	sample_id	*number*	Sample identifier	Y
	state	*varchar2(128)*	Text results of quality control hypothesis tests	Y
	lddate	*date*	Date of quality control processing	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_QCHISTORY(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	QCHISTORY_B_I_U

5.1.100. GARDS_QCPARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_qcparams table contains parameters for quality control processes.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	Y
	gainchange	*number*	Gain first difference tolerance	Y
	sdmult	*number*	Location test standard deviation multiplier	Y
	width_adj	*number*	Peak width standard deviation inflation factor	Y
	area_adj	*number*	Peak area standard deviation inflation factor	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	etol	*number*	Energy tolerance used to match peaks with energies (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_QCPARAMS_DET(detector_id) targets GARDS_DETECTORS
Triggers:	QCPARAMS_B_I_U

5.1.101. GARDS_QCTARGETS

Owners:	RMSMAN
Category:	
Description:	The gards_qctargets table contains detector-specific target values for the quality control width and area tests.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
FI	detector_id	*number*	Unique detector identifier	Y
	dtg	*date*	Decay correction reference date	Y
	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Nuclide line energy (keV)	Y
	muwidth	*number*	Target width for each nuclide line energy (keV)	Y
	muarea	*number*	Target area for each nuclide line energy (counts)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_QCTARGS_DET(detector_id) targets GARDS_DETECTORS FK_QCTARGS_STA(station_id) targets GARDS_STATIONS
Triggers:	QCTARGETS_B_I_U

5.1.102. GARDS_QC_RESULTS

Owners:	RMSMAN
Category:	
Description:	Contains the result of QC performed for the given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
F	sample_id	*number(22,0)*	Sample identifier	Y
	test_name	*varchar2(32)*	Quality control test name	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	flag	*char(1)*	Quality control flag	Y
	qc_comment	*varchar2(255)*	Quality control comments	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_QC_RESULTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	QC_RESULTS_B_I_U

5.1.103. GARDS_QC_RESULTS

Owners:	RMSAUTO
Category:	
Description:	Contains the result of QC performed for the given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number(22,0)*	Sample identifier	Y
	test_name	*varchar2(32)*	Quality control test name	Y
	flag	*char(1)*	Quality control flag	Y
	qc_comment	*varchar2(255)*	Quality control comments	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_QC_RESULTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	QC_RESULTS_B_I_U, GARDS_QC_RESULTS_I_U_D

5.1.104. GARDS_QUERY_RESULTS

Owners:	RMSAUTO,RMSMAN
Category:	
Description:	The gards_query_results table contains output of a user-initiated query from the event screening tool. This table is purged at the end of the request.

Pk/Fk/I	Column	Storage type	Description	Null?
	rqst_id	*number*	Unique query identifier	Y
	rqst_string	*varchar2(100)*	Output of the user query	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	QUERY_RESULTS_B_I_U

5.1.105. GARDS_RECEIPT_LOG

Owners:	RMSAUTO
Category:	
Description:	The gards_receipt_log table is used by the gards_receipts utility.

Pk/Fk/I	Column	Storage type	Description	Null?
	pocid	*number*	Poc identifier	N
	subid	*number*	Not used	N
	prodid	*number*	Not used	N
	type	*varchar2(5)*	Type of data	N
	dtg	*date*	Date sent	Y
	kb_sent	*number*	Size of data (KB)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	RECEIPT_LOG_B_I_U

5.1.106. GARDS_REFLINE_MASTER

Owners:	RMSMAN
Category:	
Description:	The gards_refline_master table contains resolution calibration pairs information associated with spectral pulse height data (PHD).

Pk/Fk/I	Column	Storage type	Description	Null?
	refpeak_energy	*number*	Known reference energy for a nuclide	Y
	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S)	Y
	spectral_qualifier	*varchar2(5)*	Indicator of full or preliminary sample	Y
	calibration_type	*varchar2(3)*	Calibration type	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	REFLINE_MASTER_B_I_U

5.1.107. GARDS_RELEVANT_NUCLIDES

Owners:	RMSMAN
Category:	
Description:	The gards_relevant_nuclides table contains the list of nuclides determined to be relevant during the identification of radionuclide events. This table includes the categorization list for particulate samples (CLPS) and the relevant radioxenon isotopes.

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	type	*varchar2(16)*	Nuclide type (choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL)	Y
	sample_type	*char(1)*	Sample type (P, G, or B)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	RELEVANT_NUCLIDES_B_I_U

5.1.108. GARDS_RESOLUTION_CAL

Owners:	RMSAUTO
Category:	
Description:	The gards_resolution_cal table contains resolution calibration coefficients calculated during analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_B_I_U, GARDS_RESOLUTION_CAL_I_U_D

5.1.109. GARDS_RESOLUTION_CAL

Owners:	RMSMAN
Category:	
Description:	The gards_resolution_cal table contains resolution calibration coefficients calculated during analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	coeff1	*number*	First order calibration coefficient	Y
	coeff2	*number*	Second order calibration coefficient	Y
	coeff3	*number*	Third order calibration coefficient	Y
	coeff4	*number*	Fourth order calibration coefficient	Y
	coeff5	*number*	Fifth order calibration coefficient	Y
	coeff6	*number*	Sixth order calibration coefficient	Y
	coeff7	*number*	Seventh order calibration coefficient	Y
	coeff8	*number*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_CAL(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_B_I_U

5.1.110. GARDS_RESOLUTION_CAL_COV

Owners:	RMSMAN
Category:	
Description:	The GARDS_RESOLUTION_CAL_COV table contains the covariance table for each coefficient of the resolution calibration from a given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
F	sample_id	*number(22,0)*	Sample identifier	Y
	row_index	*number(10,0)*	Row index for resolution calibration	Y
	col_index	*number(10,0)*	Column index for resolution calibration	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	coeff	*float(22)*	Resolution calibration coefficient	Y

Foreign keys:	FK_RESOLUTION_CAL_COV(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_COV_B_I_U

5.1.111. GARDS_RESOLUTION_CAL_COV

Owners:	RMSAUTO
Category:	
Description:	The GARDS_RESOLUTION_CAL_COV table contains the covariance table for each coefficient of the resolution calibration from a given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
F	sample_id	*number(22,0)*	Sample identifier	Y
	row_index	*number(10,0)*	Row index for resolution calibration	Y
	col_index	*number(10,0)*	Column index for resolution calibration	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	coeff	*float(22)*	Resolution calibration coefficient	Y

Foreign keys:	FK_RESOLUTION_CAL_COV(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_COV_B_I_U, GARDS_RESOLUTION_CAL_COV_I_U_D

5.1.112. GARDS_RESOLUTION_CAL_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_resolution_cal_orig table contains the original resolution calibration coefficients calculated during analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number(8,0)*	Sample identifier	Y
	coeff1	*number(8,0)*	First order calibration coefficient	Y
	coeff2	*number(8,0)*	Second order calibration coefficient	Y
	coeff3	*number(8,0)*	Third order calibration coefficient	Y
	coeff4	*number(8,0)*	Fourth order calibration coefficient	Y
	coeff5	*number(8,0)*	Fifth order calibration coefficient	Y
	coeff6	*number(8,0)*	Sixth order calibration coefficient	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	coeff7	*number(8,0)*	Seventh order calibration coefficient	Y
	coeff8	*number(8,0)*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_CAL_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_ORIG_B_I_U

5.1.113. GARDS_RESOLUTION_CAL_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_resolution_cal_orig table contains the original resolution calibration coefficients calculated during analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number(8,0)*	Sample identifier	Y
	coeff1	*number(8,0)*	First order calibration coefficient	Y
	coeff2	*number(8,0)*	Second order calibration coefficient	Y
	coeff3	*number(8,0)*	Third order calibration coefficient	Y
	coeff4	*number(8,0)*	Fourth order calibration coefficient	Y
	coeff5	*number(8,0)*	Fifth order calibration coefficient	Y
	coeff6	*number(8,0)*	Sixth order calibration coefficient	Y
	coeff7	*number(8,0)*	Seventh order calibration coefficient	Y
	coeff8	*number(8,0)*	Eighth order calibration coefficient	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_CAL_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_CAL_ORIG_B_I_U, GARDS_RES_CAL_ORIG_I_U_D

5.1.114. GARDS_RESOLUTION_PAIRS

Owners:	RMSAUTO
Category:	
Description:	The gards_resolution_pairs table contains resolution calibration pairs information associated with spectral PHD.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	res_energy	*number*	Resolution energy (keV)	Y
	resolution	*number*	Resolution (keV)	Y
	res_error	*number*	Error in resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_PAIRS_B_I_U, GARDS_RESOLUTION_PAIRS_I_U_D

5.1.115. GARDS_RESOLUTION_PAIRS

Owners:	RMSMAN
Category:	
Description:	The gards_resolution_pairs table contains resolution calibration pairs information associated with spectral PHD.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	res_energy	*number*	Resolution energy (keV)	Y
	resolution	*number*	Resolution (keV)	Y
	res_error	*number*	Error in resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_PAIRS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_PAIRS_B_I_U

5.1.116. GARDS_RESOLUTION_PAIRS_ORIG

Owners:	RMSMAN
Category:	
Description:	The gards_resolution_pairs_orig table contains the original resolution calibration pairs information associated with spectral PHD.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	res_energy	*number*	Resolution energy (keV)	Y
	resolution	*number*	Resolution (keV)	Y
	res_error	*number*	Error in resolution (keV)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_PAIRS_ORIG_B_I_U

5.1.117. GARDS_RESOLUTION_PAIRS_ORIG

Owners:	RMSAUTO
Category:	
Description:	The gards_resolution_pairs_orig table contains the original resolution calibration pairs information associated with spectral PHD.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	res_energy	*number*	Resolution energy (keV)	Y
	resolution	*number*	Resolution (keV)	Y
	res_error	*number*	Error in resolution (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_RESOLUTION_PAIRS_ORIG(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RESOLUTION_PAIRS_ORIG_B_I_U, GARDS_RES_PAIRS_ORIG_I_U_D

5.1.118. GARDS_RLR

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr table contains all data related to a Radionuclide Laboratory Report (RLR) message.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	rlr_id	*number*	Unique RLR identifier	N
	station_id	*number*	Unique station identifier	Y
	lab_id	*number*	Unique laboratory identifier	Y
	lab_detector_id	*number*	Unique laboratory detector identifier	Y
	orig_sample_ref_id	*varchar2(32)*	Original/entire sample reference identifier	Y
	split_sample_ref_id	*varchar2(32)*	Split sample reference identification	Y
	report_type	*varchar2(3)*	Report type (FIN or PRE)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	lab_sample_category	*varchar2(2)*	Report sample category (A|B|C|D|E)	Y
	report_number	*number*	Report number	Y
	priority_level	*varchar2(10)*	Priority level (Urgent or Routine)	Y
	collect_start	*date*	Sample collection start date	Y
	collect_stop	*date*	Sample collection stop date	Y
	entry_date	*date*	Date when RLR was entered into IDC database	Y
	test_date	*date*	Test completion date at lab	Y
	transmit_date	*date*	Transmit date	Y
	filename	*varchar2(256)*	Name of file containing the RLR	Y
	lab_receipt_date	*date*	Date of sample receipts at the laboratory	Y
	activity_date	*date*	Activity reference date	Y
	concentration_date	*date*	Concentration reference date	Y
	test_type	*varchar2(256)*	Type of test performed	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	RLRID_PK(rlr_id)
Indexes:	RLRID_PK(rlr_id)
Triggers:	GARDS_RLR_B_I_U
Slaves:	GARDS_RLR_CONCLUSIONS, GARDS_RLR_RESULTS, GARDS_RLR_OBJECTIVE, GARDS_RLR_RATIOS, GARDS_RLR_SSREB

5.1.119. GARDS_RLR_CONCLUSIONS

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr_conclusions table contains IDC findings, lab findings and comparisons of IDC and lab results.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	rlr_id	*number*	Unique RLR identifier	Y
	idc_summary	*varchar2(2048)*	IDC findings	Y
	lab_summary	*varchar2(2048)*	Laboratory findings and conclusions	Y
	result_comparison	*varchar2(2048)*	Comparison of IDC and laboratory results	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C0052460(rlr_id) targets GARDS_RLR
Triggers:	RLR_CONCLUSIONS_B_I_U

5.1.120. GARDS_RLR_OBJECTIVE

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr_objective table contains the objectives of the report.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	rlr_id	*number*	Unique RLR identifier	Y
	analysis_purpose	*varchar2(2048)*	Analysis purpose	Y
	tests_authorized	*varchar2(2048)*	Tests authorized	Y
	special_instructions	*varchar2(2048)*	Special instructions	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C0052461(rlr_id) targets GARDS_RLR
Triggers:	RLR_OBJECTIVE_B_I_U

5.1.121. GARDS_RLR_RATIOS

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr_ratios table contains the nuclides activity ratios

Pk/Fk/I	Column	Storage type	Description	Null?
FI	rlr_id	*number*	Unique RLR identifier	Y
	nuclide1	*varchar2(8)*	Nuclide 1	Y
	nuclide2	*varchar2(8)*	Nuclide 2	Y
	activity_ratio	*number*	Activity ratio of nuclide 1 to nuclide 2	Y
	activity_ratio_err	*number*	Activity ratio uncertainty (%)	Y
	reference_date	*date*	Reference date for ratio	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	zero_date	*date*	Zero date	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C0052462(rlr_id) targets GARDS_RLR
Triggers:	RLR_RATIOS_B_I_U

5.1.122. GARDS_RLR_RESULTS

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr_results table contains the results of tests conducted at the laboratory.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	rlr_id	*number*	Unique RLR identifier	Y
	nuclide_name	*varchar2(8)*	Nuclide name	Y
	activity	*number*	Activity	Y
	activity_err	*number*	Activity uncertainty	Y
	activ_coverage_factor	*number*	Coverage factor	Y
	activ_confidence_level	*number*	Level of confidence	Y
	concentration	*number*	Concentration	Y
	concentration_err	*number*	Concentration uncertainty	Y
	conc_coverage_factor	*number*	Coverage factor	Y
	conc_confidence_level	*number*	Level of confidence	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C0052459(rlr_id) targets GARDS_RLR
Triggers:	RLR_RESULTS_B_I_U

5.1.123. GARDS_RLR_SSREB

Owners:	RMSAUTO
Category:	
Description:	The gards_rlr_ssreb table contains the list of RLRs that have been added to their corresponsing SSREB.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	rlr_id	*number*	Unique RLR identifier	Y
FI	sample_id	*number*	Sample identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C0054296(rlr_id) targets GARDS_RLR SYS_C0054297(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	RLR_SSREB_B_I_U

5.1.124. GARDS_ROI_CHANNELS

Owners:	RMSAUTO
Category:	
Description:	The gards_roi_channels table contains the ROI boundaries in channel units that are calculated in rms_xanalyze.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	b_chan_start	*number*	Beta boundary start channel	Y
	b_chan_stop	*number*	Beta boundary stop channel	Y
	g_chan_start	*number*	Gamma boundary start channel	Y
	g_chan_stop	*number*	Gamma boundary stop channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_CHANNELS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_CHANNELS_B_I_U, GARDS_ROI_CHANNELS_I_U_D

5.1.125. GARDS_ROI_CHANNELS

Owners:	RMSMAN
Category:	
Description:	The gards_roi_channels table contains the ROI boundaries in channel units that are calculated in rms_xanalyze.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	b_chan_start	*number*	Beta boundary start channel	Y
	b_chan_stop	*number*	Beta boundary stop channel	Y
	g_chan_start	*number*	Gamma boundary start channel	Y
	g_chan_stop	*number*	Gamma boundary stop channel	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_CHANNELS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_CHANNELS_B_I_U

5.1.126. GARDS_ROI_CONCS

Owners:	RMSMAN
Category:	
Description:	The gards_roi_concs table contains information regarding the concentration of each identified nuclide that is calculated in rms_xanalyze.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	activity	*number*	Activity per unit volume air (mBq/m3)	Y
	activ_err	*number*	Uncertainty of activity (mBq/m3)	Y
	mda	*number*	Minimum detectable activity (mBq/m3)	Y
	nid_flag	*number*	Nuclide identification indicator (0,1 or 2)	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_CONCS_B_I_U

5.1.127. GARDS_ROI_CONCS

Owners:	RMSAUTO
Category:	
Description:	The gards_roi_concs table contains information regarding the concentration of each identified nuclide that is calculated in rms_xanalyze.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	activity	*number*	Activity per unit volume air (mBq/m3)	Y
	activ_err	*number*	Uncertainty of activity (mBq/m3)	Y
	mda	*number*	Minimum detectable activity (mBq/m3)	Y
	nid_flag	*number*	Nuclide identification indicator (0,1 or 2)	Y
	report_mda	*number*	Indicator of whether MDA is to be reported	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_CONCS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_CONCS_B_I_U, GARDS_ROI_CONCS_I_U_D

5.1.128. GARDS_ROI_COUNTS

Owners:	RMSAUTO
Category:	
Description:	The gards_roi_counts table contains information regarding the counts that are calculated in rms_xanalyze for each ROI.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	gross	*number*	Counts in ROI before processing	Y
	gross_err	*number*	Uncertainty of gross (counts)	Y
	compton	*number*	Compton continuum background counts	Y
	compton_err	*number*	Uncertainty of compton (counts)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	interference	*number*	Counts from interference nuclides	Y
	interference_err	*number*	Uncertainty of interference (counts)	Y
	memory	*number*	Gas background counts	Y
	memory_err	*number*	Uncertainty of memory (counts)	Y
	detector_back	*number*	Detector background counts	Y
	detector_back_err	*number*	Uncertainty of detector_back (counts)	Y
	net	*number*	Counts in ROI after processing	Y
	net_err	*number*	Uncertainty of net (counts)	Y
	lc	*number*	Critical level (counts)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_COUNTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_COUNTS_B_I_U, GARDS_ROI_COUNTS_I_U_D

5.1.129. GARDS_ROI_COUNTS

Owners:	RMSMAN
Category:	
Description:	The gards_roi_counts table contains information regarding the counts that are calculated in rms_xanalyze for each ROI.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	gross	*number*	Counts in ROI before processing	Y
	gross_err	*number*	Uncertainty of gross (counts)	Y
	compton	*number*	Compton continuum background counts	Y
	compton_err	*number*	Uncertainty of compton (counts)	Y
	interference	*number*	Counts from interference nuclides	Y
	interference_err	*number*	Uncertainty of interference (counts)	Y
	memory	*number*	Gas background counts	Y
	memory_err	*number*	Uncertainty of memory (counts)	Y
	detector_back	*number*	Detector background counts	Y
	detector_back_err	*number*	Uncertainty of detector_back (counts)	Y
	net	*number*	Counts in ROI after processing	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	net_err	*number*	Uncertainty of net (counts)	Y
	lc	*number*	Critical level (counts)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_COUNTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_COUNTS_B_I_U

5.1.130. GARDS_ROI_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_roi_lib table relates each ROI to a specific nuclide. The table also contains nuclide properties used in nuclide quantification.

Pk/Fk/I	Column	Storage type	Description	Null?
	roi	*number*	Unique ROI identifier	Y
	name	*varchar2(8)*	Nuclide associated with ROI	Y
	halflife	*varchar2(23)*	Half-life of the nuclide	Y
	halflife_err	*varchar2(23)*	Uncertainty of half-life	Y
	halflife_sec	*number*	Numerical half-life in seconds	Y
	abundance	*number*	Intensity of b-g coincidence event	Y
	abundance_err	*number*	Uncertainty of abundance	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	ROI_LIB_B_I_U

5.1.131. GARDS_ROI_LIMITS

Owners:	RMSAUTO
Category:	
Description:	The gards_roi_limits table contains the ROI boundaries in energy units as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	b_energy_start	*number*	Beta boundary start energy (keV)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	b_energy_stop	*number*	Beta boundary stop energy (keV)	Y
	g_energy_start	*number*	Gamma boundary start energy (keV)	Y
	g_energy_stop	*number*	Gamma boundary stop energy (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_LIMITS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_LIMITS_B_I_U, GARDS_ROI_LIMITS_I_U_D

5.1.132. GARDS_ROI_LIMITS

Owners:	RMSMAN
Category:	
Description:	The gards_roi_limits table contains the ROI boundaries in energy units as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	b_energy_start	*number*	Beta boundary start energy (keV)	Y
	b_energy_stop	*number*	Beta boundary stop energy (keV)	Y
	g_energy_start	*number*	Gamma boundary start energy (keV)	Y
	g_energy_stop	*number*	Gamma boundary stop energy (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROI_LIMITS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	ROI_LIMITS_B_I_U

5.1.133. GARDS_ROLES

Owners:	RMSMAN
Category:	
Description:	The gards_roles table contains the list of roles that can be manipulated by the MAR tools.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	role_id	*number*	Unique role identifier	N
	role_name	*varchar2(30)*	String name of a role	N

Pk/Fk/I	Column	Storage type	Description	Null?
	db_name	*varchar2(35)*	Name of corresponding database role	N
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_ROLES(role_id)
Indexes:	PK_ROLES(role_id)
Triggers:	ROLES_B_I_U
Slaves:	GARDS_USERS_ROLES, GARDS_ROLES_PERMISSIONS

5.1.134. GARDS_ROLES_PERMISSIONS

Owners:	RMSMAN
Category:	
Description:	The gards_roles_permissions table contains a mapping of which permissions are assigned to which roles.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	role_id	*number*	Role identifier	Y
FI	permission_id	*number*	Permission identifier	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	SYS_C005735(permission_id) targets GARDS_PERMISSIONS SYS_C005738(role_id) targets GARDS_ROLES
Triggers:	ROLES_PERMISSIONS_B_I_U

5.1.135. GARDS_SAINT_DEFAULT_PARAMS

Owners:	RMSAUTO,RMSMAN
Category:	
Description:	The GARDS_DEFAULT_PARAMS table contains autoSaint default processing parameters

Pk/Fk/I	Column	Storage type	Description	Null?
I	name	*varchar2(40)*	name of autoSaint default processing flags	N
	value	*varchar2(256)*	autoSaint default processing values	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	DEFAULT_PARAMS_B_I_U

5.1.136. GARDS_SAINT_PROCESS_PARAMS

Owners:	RMSAUTO
Category:	
Description:	The GARDS_SAINT_PROCESS_PARAMS table contains the listing of autoSaint flags for each processed sample

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	name	*varchar2(40)*	name of autoSaint processing flags	N
	value	*varchar2(256)*	autoSaint processing values	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAINT_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PROCESS_PARAMS_B_I_U, GARDS_SAINT_PROC_PAR_I_U_D

5.1.137. GARDS_SAINT_PROCESS_PARAMS

Owners:	RMSMAN
Category:	
Description:	The GARDS_SAINT_PROCESS_PARAMS table contains the listing of autoSaint flags for each processed sample

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	name	*varchar2(40)*	name of autoSaint processing flags	N
	value	*varchar2(256)*	autoSaint processing values	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAINT_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	PROCESS_PARAMS_B_I_U

5.1.138. GARDS_SAMPLE_AUX

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_aux table contains auxiliary information related to raw sample data.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	sample_ref_id	*varchar2(32)*	Sample reference identification	Y
	measurement_id	*varchar2(31)*	Unique detection identifier	Y
	bkgd_measurement_id	*varchar2(31)*	Unique background identifier corresponding to detection identifier	Y
	sample_height	*number*	Height of sample (cm)	Y
	calibration_dtg	*date*	Date of most recent calibration at detector site	Y
	msg_id	*number*	Message identifier	Y
	archive_bottle_id	*char(2)*	Unique identifier of the archive bottle in which the sample is stored	Y
	gas_bkgd_measurement_id	*varchar2(31)*	Unique measurement id (MID) of the gas background acquisition associated with the sample	Y
	xe_collect_yield	*number*	Xe collection yield of the system (volume of stable Xe on detector/volume of stable Xe collected on first trap)	Y
	xe_collect_yield_err	*number*	Uncertainty of xe_collect_yield	Y
	xe_volume	*number*	Volume of stable Xe in gas cell counter (cm3)	Y
	xe_volume_err	*number*	Uncertainty of xe_volume in cm3	Y
	sample_diameter	*number*	Diameter of gas chamber (cm)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_AUX(sample_id)
Foreign keys:	FK_SAMPLE_AUX(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_AUX_B_I_U

5.1.139. GARDS_SAMPLE_CAT

Owners:	RMSMAN
Category:	
Description:	The gards_sample_cat table contains the most recent categorization values from either automatic or manual processing.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	name	*varchar2(8)*	Name of the nuclide	N
	method_id	*number*	Method identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	category	*number*	Categorization level	Y
	upper_bound	*number*	Upper limit of the amount of a nuclide that can be acceptably found	Y
	lower_bound	*number*	Lower limit of the amount of a nuclide that can be acceptably found	Y
	central_value	*number*	Current estimate of the level of the random process	Y
	delta	*number*	Value of a variable used in bounds estimation (EWMA algorithm)	Y
	activity	*number*	Line activity.	Y
	hold	*number*	Flag that hold categorization bounds fixed and does not update values (0 = proceed, 1 = wait)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMP_ID(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_CAT_B_I_U

5.1.140. GARDS_SAMPLE_CERT

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_cert table contains overview information regarding certificate data found in pulse height data messages.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	quantity	*number*	Quantity associated with certificate	Y
	assay_date	*date*	Date sample was assayed	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_CERT(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_CERT_B_I_U

5.1.141. GARDS_SAMPLE_CERT_LINES

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_cert_lines table contains nuclide information regarding certificate data found in pulse height data messages.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	nucl_name	*varchar2(8)*	Nuclide name	Y
	halflife	*varchar2(23)*	Half-life of nuclide	Y
	energy	*number*	Energy of nuclide	Y
	activity	*number*	Activity of nuclide at time of assay	Y
	error	*number*	Percent error in activity	Y
	abundance	*number*	Percent abundance	Y
	b_abundance	*number*	Intensity of beta particle or conversion electron (particles/decay)	Y
	b_energy	*number*	Energy of conversion electron or maximum energy of beta particle (keV)	Y
	decay_mode	*char(1)*	Type of decay; B = beta particle, C = conversion electron	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_CERT_LINES(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_CERT_LINES_B_I_U

5.1.142. GARDS_SAMPLE_DATA

Owners:	RMSMAN
Category:	
Description:	The gards_sample_data table contains header data from PHD messages.

Pk/Fk/I	Column	Storage type	Description	Null?
	site_det_code	*char(15)*	Station code concatenated with detector code	Y
PI	sample_id	*number*	Sample identifier	N
I	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
	input_file_name	*varchar2(256)*	Input data filename	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	sample_type	*char(1)*	Sample type (P, G, or B)	Y
I	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S).	Y
	geometry	*varchar2(17)*	Sample geometry Canberra param: CAM_T_GEOMETRY	Y
I	spectral_qualifier	*varchar2(5)*	Time for which the sample was exposed: FULL or PREL (preliminary)	Y
I	transmit_dtg	*date*	Transmit date time group	Y
	collect_start	*date*	Collection start date	Y
I	collect_stop	*date*	Collection stop time Canberra param: CAM_X_STIME	Y
I	acquisition_start	*date*	Acquisition start time	Y
I	acquisition_stop	*date*	Acquisition stop time	Y
	acquisition_real_sec	*number*	Difference between acquisition stop and acquisition start (seconds)	Y
	acquisition_live_sec	*number*	Active detection time (seconds)	Y
	quantity	*number*	Air volume sampled (m3)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_DATA(sample_id)
Triggers:	SAMPLE_DATA_INSERT, SAMPLE_DATA_B_I_U

5.1.143. GARDS_SAMPLE_DATA

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_data table contains header data from PHD messages.

Pk/Fk/I	Column	Storage type	Description	Null?
	site_det_code	*char(15)*	Station code concatenated with detector code	Y
PI	sample_id	*number*	Sample identifier	N
I	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
	input_file_name	*varchar2(256)*	Input data filename	Y
I	sample_type	*char(1)*	Sample type (P, G, or B)	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S).	Y
	geometry	*varchar2(17)*	Sample geometry Canberra param: CAM_T_GEOMETRY	Y
I	spectral_qualifier	*varchar2(5)*	Time for which the sample was exposed: FULL or PREL (preliminary)	Y
I	transmit_dtg	*date*	Transmit date time group	Y
	collect_start	*date*	Collection start date	Y
I	collect_stop	*date*	Collection stop time Canberra param: CAM_X_STIME	Y
I	acquisition_start	*date*	Acquisition start time	Y
I	acquisition_stop	*date*	Acquisition stop time	Y
	acquisition_real_sec	*number*	Difference between acquisition stop and acquisition start (seconds)	Y
	acquisition_live_sec	*number*	Active detection time (seconds)	Y
	quantity	*number*	Air volume sampled (m3)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_DATA(sample_id)
Triggers:	SAMPLE_DATA_B_I_U, GARDS_SAMPLE_DATA_I_U_D

5.1.144. GARDS_SAMPLE_DESCRIPTION

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_description table contains description and comment text as specified in a PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	description	*varchar2(512)*	Comments	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_DESCRIPTION(sample_id)
Foreign keys:	FK_SAMPLE_DESCRIPTION(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_DESCRIPTION_B_I_U

5.1.145. GARDS_SAMPLE_FLAGS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_flags table contains the results of the rms_DBflags analysis for each sample.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	flag_id	*number*	Flag identifier	Y
	result	*number*	Indicator of whether or not the test passed	Y
	value	*number*	Threshold value used for the test	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_FLAGS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_FLAGS_B_I_U, GARDS_SAMPLE_FLAGS_I_U_D

5.1.146. GARDS_SAMPLE_FLAGS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_flags table contains the results of the rms_DBflags analysis for each sample.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	flag_id	*number*	Flag identifier	Y
	result	*number*	Indicator of whether or not the test passed	Y
	value	*number*	Threshold value used for the test	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_FLAGS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_FLAGS_B_I_U

5.1.147. GARDS_SAMPLE_PROC_PARAMS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_proc_params table contains specific processing parameters to be used for a particular spectral analysis; the table contains a combination of values from gards_proc_params_template and values entered at the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	do_back	*number*	Background subtraction indicator Canberra Parameter: CAM_L_PRNOBACKCOR	Y
	back_data_type	*char(1)*	Data type used for background subtraction; blank (B), or detector background (D)	Y
	back_sample_id	*number*	Sample identifier for sample used in background subtraction	Y
	nuclide_lib	*varchar2(96)*	Nuclide library to be used during analysis Canberra Parameter: CAM_T_EXPLIB	Y
	energy_tol	*number*	Tolerance for nuclide identification Canberra Parameter: CAM_F_TOLERANCE	Y
	mda_level	*number*	MDA confidence factor Canberra Parameter: CAM_F_MDACONFID	Y
	nid_confid	*number*	NID confidence factor Canberra Parameter: CAM_F_CONFID	Y
	squant_err	*number*	Uncertainty of sample quantity (m3) Canberra param: CAM_F_SQUANTERR (No longer used in processing)	Y
	buildtype	*varchar2(8)*	Flag for Canberra: activity (NONE), or concentration (BUILD), calculations	Y
	peak_sense	*number*	Peak search sensitivity Canberra param: CAM_F_SENSITIVITY	Y
	peak_start	*number*	Peak search start (keV) Canberra param: CAM_L_PEAKSTART	Y
	peak_end	*number*	Peak search end (keV) Canberra param: CAM_L_PEAKEND	Y
	fwhm_mult_width	*number*	Number of FWHMs to search to determine multiplets Canberra param: CAM_F_PRFWHMPKMULT	Y
	left_fwhm_lim	*number*	Left ROI FWHM limit Canberra param: CAM_F_PRFWHMPKLEFT	Y
	right_fwhm_lim	*number*	Right ROI FWHM limit Canberra param:	Y

Pk/Fk/I	Column	Storage type	Description	Null?
			CAM_F_PRFWHMPKRIGHT	
	back_chan	*number*	Number of continuous channels Canberra param: CAM_L_PRNBKCHN	Y
	back_type	*varchar2(6)*	Background type: LINEAR or STEP Canberra param: CAM_T_ROIPSBTYP	Y
	fit_singlets	*number*	Fit singlets flag Canberra param: CAM_L_PRFIT	Y
	crit_level	*number*	Critical level test indicator Canberra param: CAM_L_CRITLEVEL	Y
	fix_fwhm	*number*	Fixed FWHM during peak search flag Canberra param: CAM_L_PRFIXFWHM	Y
	area_reject	*number*	Reject peaks with zero area indicator Canberra param: CAM_L_PRREJECTPEAKS	Y
	mdc_width	*number*	Baseline width used for MDA calculation Canberra param: CAM_F_VPWIDTH	Y
	lc_abscissa	*number*	Abscissas of the normal distribution corresponding to a confidence level; a value of 1.645 corresponds to a 95% confidence interval for the peak critical level	Y
	do_pd_calc	*number*	Flag that indicates if the parent/daughter calculations were run for a particular sample; 1 = calculations were run, 0 = calculations were not run	Y
	do_csc	*number*	Flag indicating if cascade summing was turned on/off during analysis	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_PROC_PARAMS_B_I_U, GARDS_SAMPLE_PROC_PARAMS_I_U_D

5.1.148. GARDS_SAMPLE_PROC_PARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_proc_params table contains specific processing parameters to be used for a particular spectral analysis; the table contains a combination of values from gards_proc_params_template and values entered at the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	do_back	*number*	Background subtraction indicator Canberra Parameter: CAM_L_PRNOBACKCOR	Y
	back_data_type	*char(1)*	Data type used for background subtraction; blank (B), or detector background (D)	Y
	back_sample_id	*number*	Sample identifier for sample used in background subtraction	Y
	nuclide_lib	*varchar2(96)*	Nuclide library to be used during analysis Canberra Parameter: CAM_T_EXPLIB	Y
	energy_tol	*number*	Tolerance for nuclide identification Canberra Parameter: CAM_F_TOLERANCE	Y
	mda_level	*number*	MDA confidence factor Canberra Parameter: CAM_F_MDACONFID	Y
	nid_confid	*number*	NID confidence factor Canberra Parameter: CAM_F_CONFID	Y
	squant_err	*number*	Uncertainty of sample quantity (m3) Canberra param: CAM_F_SQUANTERR (No longer used in processing)	Y
	buildtype	*varchar2(8)*	Flag for Canberra: activity (NONE), or concentration (BUILD), calculations	Y
	peak_sense	*number*	Peak search sensitivity Canberra param: CAM_F_SENSITIVITY	Y
	peak_start	*number*	Peak search start (keV) Canberra param: CAM_L_PEAKSTART	Y
	peak_end	*number*	Peak search end (keV) Canberra param: CAM_L_PEAKEND	Y
	fwhm_mult_width	*number*	Number of FWHMs to search to determine multiplets Canberra param: CAM_F_PRFWHMPKMULT	Y
	left_fwhm_lim	*number*	Left ROI FWHM limit Canberra param: CAM_F_PRFWHMPKLEFT	Y
	right_fwhm_lim	*number*	Right ROI FWHM limit Canberra param: CAM_F_PRFWHMPKRIGHT	Y
	back_chan	*number*	Number of continuous channels Canberra param: CAM_L_PRNBKCHN	Y
	back_type	*varchar2(6)*	Background type: LINEAR or STEP Canberra param: CAM_T_ROIPSBTYP	Y
	fit_singlets	*number*	Fit singlets flag Canberra param: CAM_L_PRFIT	Y
	crit_level	*number*	Critical level test indicator Canberra param: CAM_L_CRITLEVEL	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	fix_fwhm	*number*	Fixed FWHM during peak search flag Canberra param: CAM_L_PRFIXFWHM	Y
	area_reject	*number*	Reject peaks with zero area indicator Canberra param: CAM_L_PRREJECTPEAKS	Y
	mdc_width	*number*	Baseline width used for MDA calculation Canberra param: CAM_F_VPWIDTH	Y
	lc_abscissa	*number*	Abscissas of the normal distribution corresponding to a confidence level; a value of 1.645 corresponds to a 95% confidence interval for the peak critical level	Y
	do_pd_calc	*number*	Flag that indicates if the parent/daughter calculations were run for a particular sample; 1 = calculations were run, 0 = calculations were not run	Y
	do_csc	*number*	Flag indicating if cascade summing was turned on/off during analysis	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_PROC_PARAMS_B_I_U

5.1.149. GARDS_SAMPLE_RATIOS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_ratios table contains the amount of overlap between each ROI as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	ratio_id	*varchar2(15)*	Ratio identifier	Y
	upper_roi_number	*number*	ROI number associated with the upper ROI	Y
	lower_roi_number	*number*	ROI number associated with the lower ROI	Y
	count_ratio	*number*	Ratio of the upper ROI counts to lower ROI counts	Y
	count_ratio_err	*number*	Uncertainty of count_ratio	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_RATIOS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_RATIOS_B_I_U, GARDS_SAMPLE_RATIOS_I_U_D

5.1.150. GARDS_SAMPLE_RATIOS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_ratios table contains the amount of overlap between each ROI as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	ratio_id	*varchar2(15)*	Ratio identifier	Y
	upper_roi_number	*number*	ROI number associated with the upper ROI	Y
	lower_roi_number	*number*	ROI number associated with the lower ROI	Y
	count_ratio	*number*	Ratio of the upper ROI counts to lower ROI counts	Y
	count_ratio_err	*number*	Uncertainty of count_ratio	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_RATIOS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_RATIOS_B_I_U

5.1.151. GARDS_SAMPLE_STATUS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_status table contains spectral processing historical data.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	entry_date	*date*	Date sample was entered into database	Y
	cnf_begin_date	*date*	Date when last analysis began	Y
	cnf_end_date	*date*	Date when last analysis ended	Y
	review_date	*date*	Date sample was last reviewed	Y
	review_time	*number*	Amount of time to review sample (minutes)	Y
	analyst	*varchar2(30)*	Name of analyst who reviewed sample	Y

Pk/Fk/I	Column	Storage type	Description	Null?
I	status	*char(1)*	Current processing status of sample.	Y
	category	*number*	Sample categorization level after interactive analysis	Y
	auto_category	*number*	Sample categorization level after automated analysis	Y
	release_date	*date*	Release date	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_STATUS(sample_id)
Foreign keys:	FK_SAMPLE_STATUS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_STATUS_B_I_U, SAMPLE_STATUS_UPDATE

5.1.152. GARDS_SAMPLE_STATUS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_status table contains spectral processing historical data.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	sample_id	*number*	Sample identifier	N
	entry_date	*date*	Date sample was entered into database	Y
	cnf_begin_date	*date*	Date when last analysis began	Y
	cnf_end_date	*date*	Date when last analysis ended	Y
	review_date	*date*	Date sample was last reviewed	Y
	review_time	*number*	Amount of time to review sample (minutes)	Y
	analyst	*varchar2(30)*	Name of analyst who reviewed sample	Y
I	status	*char(1)*	Current processing status of sample.	Y
	category	*number*	Sample categorization level after interactive analysis	Y
	auto_category	*number*	Sample categorization level after automated analysis	Y
	release_date	*date*	Release date	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SAMPLE_STATUS(sample_id)
Foreign keys:	FK_SAMPLE_STATUS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_STATUS_B_I_U, GARDS_SAMPLE_STATUS_I_U_D

5.1.153. GARDS_SAMPLE_UPDATE_PARAMS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_update_params table holds the actual parameters used for energy calibration updating during analysis. This table may contain a combination of defaults from gards_update_params_template and values from the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	mrp_used	*number*	Indicator of whether or not the Most Recent Prior (MRP) sample should be used	Y
	mrp_sample_id	*number*	The sample_id of the MRP sample to be used	Y
	gainshift	*number*	Gain change for matching, percent (typically 0.1)	Y
	zeroshift	*number*	Zero change for matching, channels (typically 1)	Y
	area_lim	*number*	Minimum peak area for inclusion in matching (counts)	Y
	use_weight	*number*	0/1 flag for use of weights in ECR updating (typically 1)	Y
	use_mult	*number*	0/1 flag for use of multiplets in ECR updating (typically 1)	Y
	f_linear	*number*	0/1 flag for forcing ECR to be first-order (typically 0)	Y
	bootstrap	*number*	0/1 flag for ignoring prior ECR/ resolution versus energy regression (RER) (typically 0)	Y
	min_lookup	*number*	Minimum library lookup tolerance, keV (typically 0.2)	Y
	rer_intercept	*number*	Default RER intercept (typically 1.2)	Y
	rer_slope	*number*	Default RER coeff (typically 0.03)	Y
	ecr_slope	*number*	Default ECR slope	Y
	do_reru	*number*	Flag that indicates if a resolution update was performed	Y
	rer_mrp_used	*number*	Indicates what RER was chosen during analysis	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_UPDATE_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_UPDATE_PARAMS_B_I_U, GARDS_SAMP_UPD_PRMS_I_U_D

5.1.154. GARDS_SAMPLE_UPDATE_PARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_update_params table holds the actual parameters used for energy calibration updating during analysis. This table may contain a combination of defaults from gards_update_params_template and values from the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	mrp_used	*number*	Indicator of whether or not the Most Recent Prior (MRP) sample should be used	Y
	mrp_sample_id	*number*	The sample_id of the MRP sample to be used	Y
	gainshift	*number*	Gain change for matching, percent (typically 0.1)	Y
	zeroshift	*number*	Zero change for matching, channels (typically 1)	Y
	area_lim	*number*	Minimum peak area for inclusion in matching (counts)	Y
	use_weight	*number*	0/1 flag for use of weights in ECR updating (typically 1)	Y
	use_mult	*number*	0/1 flag for use of multiplets in ECR updating (typically 1)	Y
	f_linear	*number*	0/1 flag for forcing ECR to be first-order (typically 0)	Y
	bootstrap	*number*	0/1 flag for ignoring prior ECR/ resolution versus energy regression (RER) (typically 0)	Y
	min_lookup	*number*	Minimum library lookup tolerance, keV (typically 0.2)	Y
	rer_intercept	*number*	Default RER intercept (typically 1.2)	Y
	rer_slope	*number*	Default RER coeff (typically 0.03)	Y
	ecr_slope	*number*	Default ECR slope	Y
	do_reru	*number*	Flag that indicates if a resolution update was performed	Y
	rer_mrp_used	*number*	Indicates what RER was chosen during analysis	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_UPDATE_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_UPDATE_PARAMS_B_I_U

5.1.155. GARDS_SAMPLE_XE_PROC_PARAMS

Owners:	RMSMAN
Category:	
Description:	The gards_sample_xe_proc_params table contains specific processing parameters to be used for a particular spectral analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
F	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y
	lc_abscissa	*number*	Abscissa of the normal distribution corresponding to a confidence level	Y
	beta_ecr_order	*number*	Determines whether the beta ECR is linear, quadratic, or manually defined	Y
	gamma_ecr_order	*number*	Determines whether the gamma ECR is linear, quadratic, or manually defined	Y
	compton	*number*	Number of compton channels	Y
	det_back_used	*number*	Determines whether the detector background is in use or not (1 = YES, 0 = NO)	Y
	gas_back_used	*number*	Determines whether the gas background is in use or not (1 = YES, 0 = NO)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_XE_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_XE_PROC_PARAMS_B_I_U

5.1.156. GARDS_SAMPLE_XE_PROC_PARAMS

Owners:	RMSAUTO
Category:	
Description:	The gards_sample_xe_proc_params table contains specific processing parameters to be used for a particular spectral analysis.

Pk/Fk/I	Column	Storage type	Description	Null?
F	sample_id	*number*	Sample identifier	Y
	roi	*number*	ROI identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	lc_abscissa	*number*	Abscissa of the normal distribution corresponding to a confidence level	Y
	beta_ecr_order	*number*	Determines whether the beta ECR is linear, quadratic, or manually defined	Y
	gamma_ecr_order	*number*	Determines whether the gamma ECR is linear, quadratic, or manually defined	Y
	compton	*number*	Number of compton channels	Y
	det_back_used	*number*	Determines whether the detector background is in use or not (1 = YES, 0 = NO)	Y
	gas_back_used	*number*	Determines whether the gas background is in use or not (1 = YES, 0 = NO)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SAMPLE_XE_PROC_PARAMS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SAMPLE_XE_PROC_PARAMS_B_I_U, GARDS_SMPLE_XE_P_PRMS_I_U_D

5.1.157. GARDS_SOH_CHAR_DATA

Owners:	RMSAUTO
Category:	
Description:	The gards_soh_char_data table contains all state of health (SOH) character data.

Pk/Fk/I	Column	Storage type	Description	Null?
I	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
I	param_code	*number*	Parameter identifier	Y
	value	*varchar2(30)*	Value of specified parameter	Y
I	dtg_begin	*date*	Begin date	Y
I	dtg_end	*date*	End date	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	soh_char_id	*number*	Unique state of health character data identifier	Y

Triggers:	SOH_CHAR_DATA_S_I, SOH_CHAR_DATA_B_I_U

5.1.158. GARDS_SOH_CODE

Owners:	RMSMAN
Category:	
Description:	The gards_soh_code table contains all state of health (SOH) parameter names and their codes.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	param	*varchar2(30)*	SOH parameter name	N
	param_code	*number*	SOH parameter code	Y
	param_display	*varchar2(30)*	Text of the parameter to be displayed in Trendvue	Y
	param_display_flag	*number*	Flag indicating whether or not a particular parameter is displayed	Y
	display_station	*number*	Flag indicating whether (1) or not (0) stations will appear in the Trendvue dialog box	Y
	display_detector	*number*	Flag indicating whether (1) or not (0) detectors will appear in the Trendvue dialog box	Y
	unit	*varchar2(32)*	Unit that the parameter is stored in	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_SOH_CODE(param)
Triggers:	SOH_CODE_B_I_U

5.1.159. GARDS_SOH_HEADER

Owners:	RMSAUTO
Category:	
Description:	The gards_soh_header table contains the header information for all SOH messages.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	soh_id	*number*	State of health identifier	N
FI	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
I	dtg_begin	*date*	Period begin time	Y
I	dtg_end	*date*	Period end time	Y
	transmit_dtg	*date*	Transmit date time group	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	SYS_C004811(soh_id)
Foreign keys:	FK_SOH_HEADER(station_id) targets GARDS_STATIONS
Triggers:	SOH_HEADER_B_I_U

5.1.160. GARDS_SOH_NUM_DATA

Owners:	RMSAUTO
Category:	
Description:	The gards_soh_num_data table contains all state of health (SOH) numerical data

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
I	param_code	*number*	SOH parameter code	Y
	value	*number*	Value of specified parameter	Y
I	dtg_begin	*date*	Begin date	Y
I	dtg_end	*date*	End date	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	soh_num_id	*number*	State of health identifier	Y

Foreign keys:	FK_SOH_NUM_DATA_STA(station_id) targets GARDS_STATIONS
Triggers:	SOH_NUM_DATA_S_I, SOH_NUM_DATA_B_I_U

5.1.161. GARDS_SOH_SENSOR_DATA

Owners:	RMSAUTO
Category:	
Description:	The gards_soh_sensor_data table contains the data reported in the

Pk/Fk/I	Column	Storage type	Description	Null?
I	station_id	*number*	Unique station identifier	Y
I	detector_id	*number*	Unique detector identifier	Y
I	sensor_type	*varchar2(20)*	Type of sensor (TEMP, PRESSURE, PROCESSFLOW, VOLTAGE, COUNTRATES, DEWPOINT, CO2VOLUME)	Y
I	sensor_name	*varchar2(20)*	Unique sensor name to distinguish between sensors of the same type	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	value	*number*	Sensor reading	Y
I	dtg_begin	*date*	Initial date of sensor reading	Y
I	dtg_end	*date*	End date of sensor reading	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	soh_sensor_id	*number*	State of health sensor id	Y

Triggers:	SOH_SENSOR_DATA_S_I, SOH_SENSOR_DATA_B_I_U

5.1.162. GARDS_SPECTRUM

Owners:	RMSAUTO
Category:	
Description:	The gards_spectrum table contains information regarding the spectral data information reported in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	sample_type	*char(1)*	Sample type (P, G, or B)	Y
	filename	*varchar2(256)*	Name of file containing spectrum data	Y
	channels	*number*	Number of channels in spectrum	Y
	energy_span	*number*	Total energy span of detector (keV)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_SPECTRUM(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	SPECTRUM_B_I_U

5.1.163. GARDS_STADET

Owners:	RMSMAN
Category:	
Description:	The gards_stadet table contains a complete list of all station/detector identifier code combinations. The entries in this table are generated via a trigger on the gards_sample_data table.

Pk/Fk/I	Column	Storage type	Description	Null?
PFI	station_id	*number*	Unique station identifier	N
PFI	detector_id	*number*	Unique detector identifier	N

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_STADET(station_id, detector_id)
Foreign keys:	FK_STADET_DET(detector_id) targets GARDS_DETECTORS FK_STADET_STA(station_id) targets GARDS_STATIONS
Indexes:	PK_STADET(station_id, detector_id)
Triggers:	STADET_B_I_U

5.1.164. GARDS_STATIONS

Owners:	RMSMAN
Category:	
Description:	The gards_stations table contains a station overview and station characteristics.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	station_id	*number*	Unique station identifier	N
I	station_code	*varchar2(5)*	Station code parsed from import message	Y
	country_code	*varchar2(2)*	Country code of site	Y
	type	*varchar2(6)*	Station type	Y
	description	*varchar2(40)*	Description of station	Y
	lat	*number*	Latitude (degrees)	Y
	lon	*number*	Longitude (degrees)	Y
	elevation	*number*	Elevation (m)	Y
	date_begin	*date*	Station initialization date	Y
	date_end	*date*	Station decommissioning date	Y
	status	*varchar2(2)*	Status of station, if NULL then station is fully operational otherwise the status is I	Y
	pocid	*number*	Point of contact identifier	Y
	split_station	*number*	Flag indicating whether or not station is split	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_STATIONS(station_id)
Triggers:	STATIONS_B_I_U, STATIONS_INSERT
Slaves:	GARDS_PROC_PARAMS_TEMPLATE, GARDS_MET_DATA, GARDS_SOH_NUM_DATA, GARDS_UPDATE_REFLINES, GARDS_SOH_HEADER, GARDS_STATIONS_SCHEDULE, GARDS_QCTARGETS, GARDS_STADET, GARDS_CAT_TEMPLATE, GARDS_STATION_ASSIGNMENTS

5.1.165. GARDS_STATIONS_SCHEDULE

Owners:	RMSMAN
Category:	
Description:	The gards_stations_schedule table contains schedule descriptions for stations reporting to a data center.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
	begin_date	*date*	Initial date of schedule	Y
	end_date	*date*	Final date of schedule	Y
	code	*char(5)*	Code symbol SCHEDULE as found in the gards_codes table. SF_GP for full sample grace period or SPHDF for full sample PHD	Y
	temporal_value	*number*	Expected station schedule period	Y
	temporal_unit	*char(5)*	Units for schedule period - currently only the value DAYS is supported	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_STA_SCHEDULE_STAID(station_id) targets GARDS_STATIONS
Triggers:	STATIONS_SCHEDULE_B_I_U

5.1.166. GARDS_STATION_ASSIGNMENTS

Owners:	RMSMAN
Category:	
Description:	The gards_station_assignments table contains a mapping of which stations are assigned to which users.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
FI	user_id	*number*	User identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_STA_ASSIGN_STAID(station_id) targets GARDS_STATIONS FK_STA_ASSIGN_USRID(user_id) targets GARDS_USERS
Triggers:	STATION_ASSIGNMENTS_B_I_U

5.1.167. GARDS_STATUS_HISTORY

Owners:	RMSMAN
Category:	
Description:	The gards_status_history table contains a list of changes in gards_sample_stations.status for reviewed samples.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	user_name	*varchar2(30)*	User name	Y
	old_status	*char(1)*	Sample_status before change	Y
	new_status	*char(1)*	Sample_status after change	Y
	dtg	*date*	Date of change	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_STATUS_HISTORY(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	STATUS_HISTORY_B_I_U

5.1.168. GARDS_TOTAL_EFFIC

Owners:	RMSMAN
Category:	
Description:	The gards_total_effic table contains detector total efficiency data as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	effic_energy	*number*	Efficiency energy (keV)	Y
	efficiency	*number*	Efficiency	Y
	effic_error	*number*	Uncertainty of efficiency	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_TOTAL_EFFIC(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	TOTAL_EFFIC_B_I_U

5.1.169. GARDS_TOTAL_EFFIC

Owners:	RMSAUTO
Category:	
Description:	The gards_total_effic table contains detector total efficiency data as specified in the PHD file.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
	effic_energy	*number*	Efficiency energy (keV)	Y
	efficiency	*number*	Efficiency	Y
	effic_error	*number*	Uncertainty of efficiency	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_TOTAL_EFFIC(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	TOTAL_EFFIC_B_I_U, GARDS_TOTAL_EFFIC_I_U_D

5.1.170. GARDS_TRENDVUE

Owners:	RMSAUTO,RMSMAN
Category:	
Description:	The gards_trendvue table contains data produced by the Trendvue application and is purged at the end of each session.

Pk/Fk/I	Column	Storage type	Description	Null?
	session_id	*number*	Unique session identifier	Y
	date_value	*date*	Date of the Trendvue plot	Y
	num_value1	*number*	First plot value	Y
	num_value2	*number*	Second plot value	Y
	num_value3	*number*	Third plot value	Y
	num_value4	*number*	Fourth plot value	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	TRENDVUE_B_I_U

5.1.171. GARDS_UPDATE_PARAMS_TEMPLATE

Owners:	RMSMAN
Category:	
Description:	The gards_update_params_template table holds the default parameters used for energy calibration updating during analysis; these values can be overridden at the command line.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	Y
	gainshift	*number*	Gain change for matching, percent (typically 0.1)	Y
	zeroshift	*number*	Zero change for matching, channels (typically 1)	Y
	area_lim	*number*	Minimum peak area for inclusion in matching (counts)	Y
	use_weight	*number*	0/1 flag for use of weights in ECR updating (typically 1)	Y
	use_mult	*number*	0/1 flag for use of multiplets in ECR updating (typically 1)	Y
	f_linear	*number*	0/1 flag for forcing ECR to be first-order (typically 0)	Y
	bootstrap	*number*	0/1 flag for ignoring prior ECR/RER (typically 0)	Y
	min_lookup	*number*	Minimum library lookup tolerance, keV (typically 0.2)	Y
	rer_intercept	*number*	Default RER intercept (typically 1.2)	Y
	rer_slope	*number*	Default RER slope (typically 0.03)	Y
	do_reru	*number*	0/1 flag that indicates whether or not a resolution update should be performed	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_UPD_PARAMS_TMPL(detector_id) targets GARDS_DETECTORS
Triggers:	UPDATE_PARAMS_TEMPLATE_B_I_U

5.1.172. GARDS_UPDATE_REFLINES

Owners:	RMSMAN
Category:	
Description:	The gards_update_reflines table contains the energies of the reference lines used in the ECR/RER updating functions.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	station_id	*number*	Unique station identifier	Y
FI	detector_id	*number*	Unique detector identifier	Y
	refpeak_energy	*number*	Known reference energy for a nuclide	Y
	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S)	Y
	spectral_qualifier	*varchar2(5)*	Time for which the sample was exposed: FULL or PREL (preliminary)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_UPD_REFLINES_DET(detector_id) targets GARDS_DETECTORS FK_UPD_REFLINES_STA(station_id) targets GARDS_STATIONS
Triggers:	UPDATE_REFLINES_B_I_U

5.1.173. GARDS_USERENV

Owners:	RMSMAN
Category:	
Description:	The gards_userenv table contains configurable environment variables used by the Automatic Processing software.

Pk/Fk/I	Column	Storage type	Description	Null?
I	name	*varchar2(40)*	Variable name	N
	value	*varchar2(256)*	Variable value	N
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	USERENV_B_I_U

5.1.174. GARDS_USERS

Owners:	RMSMAN
Category:	
Description:	Contains details of radionuclide-related personnel.

Pk/Fk/I	Column	Storage type	Description	Null?
PI	user_id	*number*	Unique user identifier	N
	user_name	*varchar2(30)*	String name for a user database login name	N

Pk/Fk/I	Column	Storage type	Description	Null?
	assignable	*number*	1 = user can be assigned stations for review or 0 = user not to be assigned stations	N
	moddate	*date*	Date/time at which the row was last modified	Y

Primary keys:	PK_USERS(user_id)
Indexes:	PK_USERS(user_id)
Triggers:	USERS_B_I_U, GARDS_USER_DELETE
Slaves:	GARDS_USERS_ROLES, GARDS_STATION_ASSIGNMENTS

5.1.175. GARDS_USERS_ROLES

Owners:	RMSMAN
Category:	
Description:	The gards_users_roles table contains a mapping of which roles are assigned to which user.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	user_id	*number*	User identifier	Y
FI	role_id	*number*	Role identifier	Y
	default_role	*number*	Integer representation of the default role name to be assigned to the user	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_ROLE_ID(role_id) targets GARDS_ROLES FK_USER_ID(user_id) targets GARDS_USERS
Triggers:	USERS_ROLES_B_I_U

5.1.176. GARDS_USER_COMMENTS

Owners:	RMSAUTO
Category:	
Description:	The gards_user_comments table contains text associated with user-defined comments.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
FI	comment_id	*number*	Comment identifier	Y
	comment_text	*varchar2(2048)*	Free-form user comments	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_USER_COMMENTS(comment_id) targets GARDS_COMMENTS FK_USER_COMMENTS_SID(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	USER_COMMENTS_B_I_U, GARDS_USER_COMMENTS_I_U_D

5.1.177. GARDS_USER_COMMENTS

Owners:	RMSMAN
Category:	
Description:	The gards_user_comments table contains text associated with user-defined comments.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	Y
FI	comment_id	*number*	Comment identifier	Y
	comment_text	*varchar2(2048)*	Free-form user comments	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_USER_COMMENTS(comment_id) targets GARDS_COMMENTS FK_USER_COMMENTS_SID(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	USER_COMMENTS_B_I_U

5.1.178. GARDS_XE_NUCL_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_xe_nucl_lib table contains nuclide library information used by the Inspectra when displaying nuclide data for gamma spectroscopy noble gas stations.

Pk/Fk/I	Column	Storage type	Description	Null?
	nuclide_id	*number*	Nuclide identifier	Y
	name	*varchar2(8)*	Name of the nuclide	Y
	type	*varchar2(16)*	Nuclide type; choices are:	Y
	halflife_sec	*number*	Half life in seconds	Y
	halflife	*varchar2(23)*	Half life	Y
	halflife_err	*varchar2(23)*	Level of confidence	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	num_lines	*number*	Number of lines	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	XE_NUCL_LIB_B_I_U

5.1.179. GARDS_XE_NUCL_LINES_LIB

Owners:	RMSMAN
Category:	
Description:	The gards_xe_nucl_lines_lib table contains nuclide library information for specific lines of a nuclide and is used by the Inspectra when displaying nuclide data for gamma spectroscopy noble gas stations.

Pk/Fk/I	Column	Storage type	Description	Null?
	name	*varchar2(8)*	Name of the nuclide	Y
	energy	*number*	Line energy (keV) Canberra parameter: CAM_F_NLENERGY	Y
	energy_err	*number*	Uncertainty of line energy Canberra parameter: CAM_F_NLENGERR	Y
	abundance	*number*	Abundance of line (percent) Canberra parameter: CAM_F_NLABUN	Y
	abundance_err	*number*	Uncertainty of abundance (percent) Canberra parameter: CAM_F_NLABUNERR	Y
	key_flag	*number*	Key line indicator Canberra parameter: CAM_L_NLFKEYLINE	Y
	nuclide_id	*number*	Nuclide identifier Canberra parameter: CAM_L_NLNUCL	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	XE_NUCL_LINES_LIB_B_I_U

5.1.180. GARDS_XE_PROC_PARAMS_TEMPLATE

Owners:	RMSMAN
Category:	
Description:	The gards_xe_proc_params_template table contains the information used for nuclide identification.

Pk/Fk/I	Column	Storage type	Description	Null?
FI	detector_id	*number*	Unique detector identifier	Y

Pk/Fk/I	Column	Storage type	Description	Null?
	roi	*number*	ROI identifier	Y
	lc_abscissa	*number*	Abscissa of the normal distribution corresponding to a confidence level	Y
	beta_ecr_order	*number*	Determines whether the beta ECR is linear, quadratic, or manually defined	Y
	gamma_ecr_order	*number*	Determines whether the gamma ECR is linear, quadratic or manually defined	Y
	compton	*number*	Number of compton channels	Y
	det_back_used	*number*	Determines whether the detector background is in use or not (1 = YES, 0 = NO)	Y
	gas_back_used	*number*	Determines whether the gas background is in use or not (1 = YES, 0 = NO)	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	XE_PPT_DET(detector_id) targets GARDS_DETECTORS
Triggers:	XE_PROC_PARAMS_TEMPLATE_B_I_U

5.1.181. GARDS_XE_REFLINE_MASTER

Owners:	RMSMAN
Category:	
Description:	The GARDS_XE_REFLINE_MASTER table contains the results of the analysis by autoSaint for the SPALAX system

Pk/Fk/I	Column	Storage type	Description	Null?
	refpeak_energy	*number*	Known reference energy for a nuclide	Y
	data_type	*char(1)*	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S)	Y
	spectral_qualifier	*varchar2(5)*	Indicator of full or preliminary sample	Y
	calibration_type	*varchar2(3)*	Calibration type	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Triggers:	XE_REFLINE_MASTER_B_I_U

5.1.182. GARDS_XE_RESULTS

Owners:	RMSMAN
Category:	
Description:	The GARDS_XE_RESULTS table contains the results of the analysis by Xe_SAINT for the SPALAX system: Concentration, coo variances, method used etc. a given sample_id

Pk/Fk/I	Column	Storage type	Description	Null?
FI	sample_id	*number*	Sample identifier	N
	method_id	*number*	Method identifier	N
	nuclide_id	*number*	Unique nuclide identifier	N
	conc	*float(126)*	Concentration	Y
	conc_err	*float(126)*	Level of confidence	Y
	mdc	*float(126)*	Minimum detectable concentration	Y
	mdi	*float(126)*	Minimum detectable intensity	Y
	nid_flag	*number*	Nuclide identifier	Y
	lc	*float(126)*	Critical level (counts)	Y
	ld	*float(126)*	Detection level	Y
	sample_act	*float(126)*	Spectrum activity without decay	Y
	cov_xe_131m	*float(126)*	Covariance matrix line 1	Y
	cov_xe_133m	*float(126)*	Covariance matrix line 2	Y
	cov_xe_133	*float(126)*	Covariance matrix line 3	Y
	cov_xe_135	*float(126)*	Covariance matrix line 4	Y
	cov_radon	*float(126)*	Covariance matrix line 5	Y
	moddate	*date*	Date/time at which the row was last modified	Y

Foreign keys:	FK_XE_RESULTS(sample_id) targets GARDS_SAMPLE_DATA
Triggers:	XE_RESULTS_B_I_U

5.1.183. RMSAUTO_DATE

Owners:	RMSMIGRATE
Category:	
Description:	The rmsauto_date table is used by the MigrateData application to track migration and purge operations for tables in the RMSAUTO schema.

Pk/Fk/I	Column	Storage type	Description	Null?
	procclass	*varchar2(16)*	Process class	Y
	procname	*varchar2(16)*	Process name	Y
	last_mig_date	*date*	Last migration date	Y
	lddate	*date*	Load date	Y

5.1.184. RMSAUTO_INTERVAL

Owners:	RMSMIGRATE
Category:	
Description:	The rmsauto_interval table defines units of data migration. The time, endtime, and name fields indicate start and end epochal times for a given interval. The class field contains either MIG or PURG to control migration and purge activities respectively.

Pk/Fk/I	Column	Storage type	Description	Null?
	intvlid	*number(8,0)*	Interval identifier	N
	class	*varchar2(16)*	Type of interval	N
	name	*varchar2(20)*	String identifying the content of the interval	N
	time	*float(53)*	Starting time of data	Y
	endtime	*float(53)*	Ending time of data	Y
	state	*varchar2(16)*	Current processing state	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	lddate	*date*	Load date	Y

5.1.185. RMSMAN_DATE

Owners:	RMSMIGRATE
Category:	
Description:	The rmsman_date table is used by the MigrateData application to track migration and purge operations for tables in the RMSMAN schema.

Pk/Fk/I	Column	Storage type	Description	Null?
	procclass	*varchar2(16)*	Process class	Y
	procname	*varchar2(16)*	Process name	Y
	last_mig_date	*date*	Last migration date	Y
	lddate	*date*	Load date	Y

5.1.186. RMSMAN_INTERVAL

Owners:	RMSMIGRATE
Category:	
Description:	The rmsman_interval table defines units of data migration. The time, endtime, and name fields indicate start and end epochal times for a given interval. The class field contains either MIG or PURG to control migration and purge activities respectively.

Pk/Fk/I	Column	Storage type	Description	Null?
	intvlid	*number(8,0)*	Interval identifier	N
	class	*varchar2(16)*	Type of interval	N
	name	*varchar2(20)*	String identifying the content of the interval	N
	time	*float(53)*	Starting time of data	Y
	endtime	*float(53)*	Ending time of data	Y
	state	*varchar2(16)*	Current processing state	Y
	moddate	*date*	Date/time at which the row was last modified	Y
	lddate	*date*	Load date	Y

5.1.187. RMS_MIG_LASTID

Owners:	RMSMIGRATE
Category:	
Description:	The rms_mig_lastid table contains counter values (last value used for keys) relevant to the migration and purging of intervals in the RMSMAN and RMSAUTO schemas.

Pk/Fk/I	Column	Storage type	Description	Null?
	keyname	*varchar2(15)*	Identifier name (arid, orid, and so on)	N
	keyvalue	*number(8,0)*	Last value used for that identifier	N
	lddate	*date*	Load date	Y

5.2. Radionuclide Column Descriptions

5.2.1. ABSCISSA

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Acceptable number of standard deviations away from the central_value where the amount of a nuclide may be found (RDC algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.2. ABUNDANCE

Tables	GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN)			
Description	Abundance of line (%).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)	percent		f8.3	Y
Range	0 < abundance <= 100			

5.2.3. ABUNDANCE

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN), GARDS_SAMPLE_CERT_LINES (RMSAUTO), GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Abundance of line (%).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < abundance <= 100			

5.2.4. ABUNDANCE

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Intensity of b-g coincidence event			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.5. ABUNDANCE_ACT

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Intensity of nuclear transition			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.6. ABUNDANCE_ACT_ERR

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Intensity of nuclear transition.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.7. ABUNDANCE_ERR

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Uncertainty of abundance			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.8. ABUNDANCE_ERR

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN), GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < abundance_err <= 100			

5.2.9. ABUNDANCE_ERR

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Uncertainty of abundance (percent) Canberra Parameter: CAM_F_NLABUNERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.10. ACQUISITION_LIVE_SEC

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Active detection time (seconds)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.11. ACQUISITION_REAL_SEC

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Total time a detectors input gate is open for processing pulses.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	seconds		f8.5	Y
Range				

5.2.12. ACQUISITION_START

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Time difference between acquisition_stop and acquisition_start.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.13. ACQUISITION_STOP

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Date of detector count commencement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.14. ACTIV_CONFIDENCE_LEVEL

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Level of confidence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.15. ACTIV_COVERAGE_FACTOR

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Coverage factor			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.16. ACTIV_DECAY

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Activity decay factor Canberra Parameter: CAM_G_NCLDECAY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.17. ACTIV_DECAY_ERR

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Activity decay factor.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.18. ACTIV_ERR

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < activ_err <= 100			

5.2.19. ACTIV_ERR

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Percent uncertainty of line activity Canberra Parameter: CAM_G_NLERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.20. ACTIV_ERR

Tables	GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN)			
Description	Uncertainty of activity (mBq/m3)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.21. ACTIV_KEY

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Activity of key-line (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.22. ACTIV_KEY

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Key-line activity (mBq/m3) Canberra Parameter: CAM_G_NCLACTVTY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.23. ACTIV_KEY_ERR

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Activity concentration of a radionuclide determined through the analysis of the key gamma photopeak.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.24. ACTIVE_FLAG

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	0 if test is inactive			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	N
Range				

5.2.25. ACTIVITY

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Activity			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			e11.4	Y
Range				

5.2.26. ACTIVITY

Tables	GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN)			
Description	Activity per unit volume air (mBq/m3)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.27. ACTIVITY

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Line activity (mBq/m3) Canberra Parameter: CAM_G_NLACTVTY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.28. ACTIVITY

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Line activity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.29. ACTIVITY

Tables	GARDS_SAMPLE_CAT (RMSMAN)			
Description	Relates to gards_nucl_ided.activ_key			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.30. ACTIVITY_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Activity reference date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.31. ACTIVITY_ERR

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Activity uncertainty			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.32. ACTIVITY_RATIO

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Activity ratio of nuclide 1 to nuclide 2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.33. ACTIVITY_RATIO_ERR

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Activity ratio uncertainty (%)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.34. ADDITIONAL_INFO

Tables	GARDS_POC (RMSMAN)			
Description	Additional information for point of contact			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(500)			a500	Y
Range				

5.2.35. ADDRESS

Tables	GARDS_POC (RMSMAN)			
Description	Additional information for a contact. This column includes information such as full name, title, company or university name, country, and so on.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(500)			a500	Y
Range				

5.2.36. ALERT_ID

Tables	GARDS_ALERTS (RMSAUTO)			
Description	Unique alert identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.37. ALERT_TEXT

Tables	GARDS_ALERTS (RMSAUTO)			
Description	Alert message text			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(512)			a51	Y
Range				

5.2.38. ALERT_TYPE

Tables	GARDS_ALERTS (RMSAUTO)			
Description	Category of alert (current alert types are ALERT_TEMP, ALERT_FLOW, ALERT_SYSTEM, and ALERT_UPS)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	Y
Range	alert_type IN { ALERT_TEMP, ALERT_FLOW, ALERT_SYSTEM, ALERT_UPS }			

5.2.39. ALLOW_RELEASE

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Flag indicating whether or not release is permitted			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.40. ALPHA

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Value of a variable used in bounds estimation (EWMA algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.41. AMPLITUDE

Tables	GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN)			
Description	Amplitude of QC peak			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.42. ANALYSIS_PURPOSE

Tables	GARDS_RLR_OBJECTIVE (RMSAUTO)			
Description	Analysis purpose			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.43. ANALYST

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Gain of first-order recursive filter for process level.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range	alpha >= 0			

5.2.44. ANALYST

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN)			
Description	Individual (or process) entering comment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.45. ANALYST

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Name of analyst who reviewed sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.46. APE

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Average prediction error, a measure of the average confidence interval for the calculated energy vs. channel regression (ECR) over the range of 100 keV			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.47. APP_ABUNDANCE

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	Apparent abundance			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.48. APP_ABUNDANCE_ERR

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	Absolute error in apparent abundance			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.49. ARCHIVE_BOTTLE_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Unique identifier of the archive bottle in which the sample is stored			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(2)			a2	Y
Range				

5.2.50. AREA

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak area (counts) Canberra Parameter: CAM_F_PSAREA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.51. AREA_ADJ

Tables	GARDS_QCPARAMS (RMSMAN)			
Description	Peak area standard deviation inflation factor			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.52. AREA_ERR

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Uncertainty of peak area (counts) Canberra Parameter: CAM_F_PSDAREA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.53. AREA_LIM

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Minimum peak area for inclusion in matching (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.54. AREA_REJECT

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Indicator of whether or not to reject peaks with zero area indicator Canberra Parameter: CAM_L_PRREJECTPEAKS			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.55. AREA_REJECT

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Reject peaks with zero area indicator Canberra param: CAM_L_PRREJECTPEAKS			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.56. ASSAY_DATE

Tables	GARDS_SAMPLE_CERT (RMSAUTO)			
Description	Date sample was assayed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.57. ASSIGNABLE

Tables	GARDS_USERS (RMSMAN)			
Description	1 = user can be assigned stations for review or 0 = user not to be assigned stations			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	N
Range				

5.2.58. AUTH

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Authentication status of the associated message; 0 = not authenticated, 1 = authenticated.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		0	i1	Y
Range	auth IN { 0, 1 }			

5.2.59. AUTHOR

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN), GARDS_QAT_NOTIFY (RMSMAN)			
Description	User name of Radionuclide Officer			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.60. AUTO_CATEGORY

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Sample categorization level after automated analysis			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.61. AVE_ACTIV

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Average activity for nuclide (mBq/m3) Canberra Parameter: CAM_T_NCLWTMEAN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.62. AVE_ACTIV_ERR

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Sample activity concentration of a specific radionuclide calculated by averaging all activity values.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.63. AVE_HUMIDITY

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Average humidity (percent relative humidity)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < ave_humidity <= 100			

5.2.64. AVE_OUT_TEMP

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Average outside temperature (deg. C)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	degrees C		f5.1	Y
Range				

5.2.65. AVE_PRESSURE

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Average atmospheric pressure.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	millibars		i4	Y
Range	0.0 <= ave_pressure			

5.2.66. AVE_WIND_DIR

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Average wind direction (degrees from North)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	degrees (clockwise from North)		f6.1	Y
Range	0.0 <= ave_wind_dir <= 360.0			

5.2.67. AVE_WIND_SPEED

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Average wind speed (km/h)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	km/h		f5.1	Y
Range				

5.2.68. B_ABUNDANCE

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Intensity of beta particle or conversion electron (particles/decay)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.69. B_CHAN_START

Tables	GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN)			
Description	Beta boundary start channel			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.70. B_CHAN_STOP

Tables	GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN)			
Description	Beta boundary start channel.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.71. B_CHANNELS

Tables	GARDS_HISTOGRAM (RMSAUTO)			
Description	Number of beta channels in histogram			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.72. B_ENERGY

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Energy of conversion electron or maximum energy of beta particle (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.73. B_ENERGY_SPAN

Tables	GARDS_HISTOGRAM (RMSAUTO)			
Description	Beta energy span of detector calibration (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.74. B_ENERGY_START

Tables	GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN)			
Description	Beta boundary start energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.75. B_ENERGY_STOP

Tables	GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN)			
Description	Beta boundary stop energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.76. BACK_CHAN

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Number of continuous channels Canberra Parameter: CAM_L_PRNBKCHN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.77. BACK_CHAN

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Number of continuous channels Canberra param: CAM_L_PRNBKCHN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.78. BACK_CHANNEL

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Number of average background channels Canberra Parameter: CAM_F_PSBKCHAN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.79. BACK_CHANNEL

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Number of average background channels Canberra Parameter: CAM_L_PSBKCHAN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.80. BACK_COUNT

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Average number of background channels.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range	0.0 <= back_channel			

5.2.81. BACK_DATA_TYPE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Blank (B), or detector background (D) spectral type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	back_data_type IN {B, D}			

5.2.82. BACK_DATA_TYPE

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Data type used for background subtraction; blank (B), or detector background (D)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	back_data_type IN {B, D}			

5.2.83. BACK_SAMPLE_ID

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Parameter that designates the PHD type to be used for a background subtraction (controlled by the do_back column): B indicates BLANKPHD and D indicates DETBKPHD.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range	back_data_type IN {B, D}			

5.2.84. BACK_TYPE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Background type Canberra Parameter: CAM_T_ROIPSBTYP			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)			a6	Y
Range				

5.2.85. BACK_TYPE

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Sample_id of the most recent background count. This count is used for background subtraction when the background subtraction function is ON.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)			a6	Y
Range	0 <= back_sample_id			

5.2.86. BACK_UNCER

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Uncertainty in continuum background counts Canberra Parameter: CAM_F_PSBACK			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.87. BACK_UNCER

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Uncertainty of continuum background counts Canberra Parameter: CAM_F_PSDBACK			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.88. BEGIN_DATE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Date initialization began			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.89. BEGIN_DATE

Tables	GARDS_STATIONS_SCHEDULE (RMSMAN)			
Description	Initial date of schedule			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.90. BEGIN_DATE

Tables	GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN)			
Description	Initialization date of pairs			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.91. BEGIN_DATE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Initialization date of parameters			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.92. BEGIN_DATE

Tables	GARDS_IRF (RMSMAN)			
Description	Start date of bound applicability			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.93. BETA_COEFF1

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Beta coefficient 1 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.94. BETA_COEFF1

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Zero shift of the beta ECR equation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.95. BETA_COEFF2

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Beta coefficient 2 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.96. BETA_COEFF2

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Linear coefficient of the beta ECR equation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.97. BETA_COEFF3

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Beta coefficient 3 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.98. BETA_COEFF3

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Quadratic coefficient of the beta ECR equation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.99. BETA_ECR_ORDER

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN)			
Description	Determines whether the beta ECR is linear, quadratic, or manually defined			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.100. BETA_ECR_ORDER

Tables	GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Determines whether the beta ECR is linear, quadratic, or manually defined			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.101. BETA_ECR_ORDER

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Whether the beta ECR is linear or quadratic			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.102. BG_EFFIC_ERROR

Tables	GARDS_BG_EFFICIENCY_PAIRS (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSMAN)			
Description	Uncertainty of bg_efficiency			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.103. BG_EFFICIENCY

Tables	GARDS_BG_EFFICIENCY_PAIRS (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSMAN)			
Description	Detection efficiency of b-g coincidence event			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.104. BIN_BETA_START

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	The beta start offset in histogram			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.105. BIN_GAMMA_START

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	The gamma start offset in histogram			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.106. BIN_MAX_VECTOR_SIZE

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Maximum size for the bin vector			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.107. BIN_MIN_COUNT

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Minimum counts in each bin			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.108. BIN_MIN_COUNT

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Minimum counts in each bin			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.109. BIN_ROWS

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Number of rows to merge in binning			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.110. BIN_ROWS

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Number of rows to merge in binning			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.111. BKGD_MEASUREMENT_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Unique background identifier corresponding to detection identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(31)			a31	Y
Range				

5.2.112. BOOTSTRAP

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	0/1 flag for ignoring prior ECR/ resolution versus energy regression (RER) (typically 0)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.113. BOOTSTRAP

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	0/1 flag for ignoring prior ECR/RER (typically 0)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.114. BRANCH_RATIO

Tables	GARDS_AUX_LIB (RMSMAN)			
Description	Percentage of decays to given decay path			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.115. BUILDTYPE

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Flag for Canberra: activity (NONE), or concentration (BUILD), calculations			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range	buildtype IN { BUILD, NONE }			

5.2.116. BUILDTYPE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Flag for Canberra: activity (NONE), or concentration (BUILD), calculations			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.117. CAL_ENERGY

Tables	GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN), GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_ENERGY_PAIRS (RMSAUTO), GARDS_ENERGY_PAIRS (RMSMAN), GARDS_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_ENERGY_PAIRS_ORIG (RMSMAN)			
Description	Calibration energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.118. CAL_ERROR

Tables	GARDS_ENERGY_PAIRS (RMSAUTO), GARDS_ENERGY_PAIRS (RMSMAN), GARDS_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_ENERGY_PAIRS_ORIG (RMSMAN)			
Description	Calibration energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.119. CAL_ERROR

Tables	GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN)			
Description	Uncertainty of channel			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.120. CAL_ERROR

Tables	GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN)			
Description	Uncertainty of channel (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.121. CALIBRATION_DTG

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Date of most recent calibration at detector site			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.122. CALIBRATION_TYPE

Tables	GARDS_REFLINE_MASTER (RMSMAN), GARDS_XE_REFLINE_MASTER (RMSMAN)			
Description	Calibration type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(3)			a3	Y
Range				

5.2.123. CATEGORY

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO)			
Description	Categorization level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.124. CATEGORY

Tables	GARDS_SAMPLE_CAT (RMSMAN)			
Description	Categorization level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.125. CATEGORY

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Sample categorization level after interactive analysis			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.126. CATEGORY_LIST

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Comma-separated list of categories			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a1024	Y
Range				

5.2.127. CENTRAL_VALUE

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Current estimate of the level of the random process			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.128. CENTROID

Tables	GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN)			
Description	Centroid energy of QC peak			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.129. CENTROID

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak centroid (channels) Canberra Parameter: CAM_F_PSCENTRD			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.130. CENTROID_ERR

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak centroid energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range	0.0 <= centroid			

5.2.131. CHAIN_ID

Tables	GARDS_AUX_LIB (RMSMAN)			
Description	Decay chain index			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.132. CHAIN_POS

Tables	GARDS_AUX_LIB (RMSMAN)			
Description	Decay chain index.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.133. CHANNEL

Tables	GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN), GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN)			
Description	Peak centroid channel			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.134. CHANNEL

Tables	GARDS_ENERGY_PAIRS (RMSAUTO), GARDS_ENERGY_PAIRS (RMSMAN), GARDS_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_ENERGY_PAIRS_ORIG (RMSMAN)			
Description	Peak centroid channel			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.135. CHANNELS

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Number of channels			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.136. CHANNELS

Tables	GARDS_SPECTRUM (RMSAUTO)			
Description	Number of channels in spectrum			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.5	Y
Range				

5.2.137. CLASS

Tables	RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Description of the type of interval described by a given row. Used as a first-level grouping for intervals being migrated and/or purged.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	N
Range	class in {MIG, PURG, VERIFY}			

5.2.138. CLASS

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Station name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	N
Range				

5.2.139. CNF_BEGIN_DATE

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Date when last analysis began			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.140. CNF_END_DATE

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Date when last analysis ended.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.141. CNV_FACTOR

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Conversion to keV			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.142. CODE

Tables	GARDS_STATIONS_SCHEDULE (RMSMAN)			
Description	Code symbol SCHEDULE as found in the gards_codes table. SF_GP for full sample grace period or SPHDF for full sample PHD			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(5)			a5	Y
Range	code IN {SF_GP, SPHDF}			

5.2.143. CODE

Tables	GARDS_CODES (RMSMAN)			
Description	Code symbol.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(5)			a5	Y
Range				

5.2.144. COEFF

Tables	GARDS_ENERGY_CAL_COV (RMSAUTO)			
Description	Energy calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(22)			i10	Y
Range				

5.2.145. COEFF

Tables	GARDS_RESOLUTION_CAL_COV (RMSAUTO), GARDS_RESOLUTION_CAL_COV (RMSMAN)			
Description	Resolution calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(22)			i10	Y
Range				

5.2.146. COEFF1

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN), GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	First order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.147. COEFF1

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	First order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.148. COEFF2

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	First order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.149. COEFF2

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Second order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.150. COEFF2

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Second order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.151. COEFF3

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Second order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.152. COEFF3

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Third order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.153. COEFF3

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Third order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.154. COEFF4

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Fourth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.155. COEFF4

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Third order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.156. COEFF4

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Fourth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.157. COEFF5

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Fifth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.158. COEFF5

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Fourth order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.159. COEFF5

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Fifth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.160. COEFF6

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Fifth order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.161. COEFF6

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Sixth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.162. COEFF6

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Sixth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.163. COEFF7

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Seventh order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.164. COEFF7

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Sixth order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.165. COEFF7

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Seventh order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.166. COEFF8

Tables	GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN)			
Description	Eighth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.167. COEFF8

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Seventh order calibration coefficient.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.168. COEFF8

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Eighth order calibration coefficient			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			g8.5	Y
Range				

5.2.169. COL_INDEX

Tables	GARDS_ENERGY_CAL_COV (RMSAUTO)			
Description	Column index for energy calibration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range				

5.2.170. COL_INDEX

Tables	GARDS_RESOLUTION_CAL_COV (RMSAUTO), GARDS_RESOLUTION_CAL_COV (RMSMAN)			
Description	Column index for resolution calibration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range				

5.2.171. COLLECT_START

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Collection start time Canberra param: CAM_X_SDEPOSIT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.172. COLLECT_START

Tables	GARDS_RLR (RMSAUTO)			
Description	Sample collection start date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.173. COLLECT_STOP

Tables	GARDS_RLR (RMSAUTO), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Date of sample collection commencement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.174. COMMENT_ID

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN)			
Description	Unique comment identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.175. COMMENT_ID

Tables	GARDS_USER_COMMENTS (RMSAUTO), GARDS_USER_COMMENTS (RMSMAN)			
Description	Comment identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.176. COMMENT_TEXT

Tables	GARDS_QAT_NOTIFY (RMSMAN)			
Description	Text of the comment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a20	Y
Range				

5.2.177. COMMENT_TEXT

Tables	GARDS_USER_COMMENTS (RMSAUTO), GARDS_USER_COMMENTS (RMSMAN)			
Description	Unique comment identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.178. COMMENT_TEXT

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Comment on the filter			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.179. COMMENT_TEXT

Tables	GARDS_COMMENTS_DEFS (RMSMAN)			
Description	Predefined comment text			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a25	Y
Range				

5.2.180. COMMENT_TYPE

Tables	GARDS_COMMENTS_DEFS (RMSMAN)			
Description	Text of analyst comments.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.181. COMMENT_TYPE

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN)			
Description	Comment code			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.182. COMMENT_TYPE

Tables	GARDS_QAT_NOTIFY (RMSMAN)			
Description	Type of analyst comments. Foreign key to gards_comments_defs			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.183. COMP_CONFID

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Computed confidence index Canberra Parameter: CAM_F_NCLCONFID			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.184. COMPTON

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Compton continuum background counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.185. COMPTON

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Number of compton channels			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.186. COMPTON_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Compton continuum background counts.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.187. CONC

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Concentration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.188. CONC_CONFIDENCE_LEVEL

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Level of confidence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.189. CONC_COVERAGE_FACTOR

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Coverage factor			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.190. CONC_ERR

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Level of confidence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.191. CONCENTRATION

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Concentration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			e11.4	Y
Range				

5.2.192. CONCENTRATION_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Concentration reference date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.193. CONCENTRATION_ERR

Tables	GARDS_RLR_RESULTS (RMSAUTO)			
Description	Concentration uncertainty			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.2	Y
Range				

5.2.194. COUNT_RATIO

Tables	GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN)			
Description	Ratio of the upper ROI counts to lower ROI counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.195. COUNT_RATIO_ERR

Tables	GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN)			
Description	Ratio of upper ROI counts to lower ROI counts.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.196. COUNTRY_CODE

Tables	GARDS_STATIONS (RMSMAN)			
Description	Country code of site			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a2	Y
Range				

5.2.197. COUNTS_SEC

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Counts per second			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.198. COUNTS_SEC_ERR

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Error in counts per second			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.199. COV_RADON

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Covariance matrix line 5			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.200. COV_XE_131M

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Covariance matrix line 1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.201. COV_XE_133

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Covariance matrix line 3			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.202. COV_XE_133M

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Covariance matrix line 2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.203. COV_XE_135

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Covariance matrix line 4			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.204. CRIT_LEVEL

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Critical level test indicator Canberra param: CAM_L_CRITLEVEL			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.205. CRIT_LEVEL

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Critical level test indicator, Canberra Parameter: CAM_L_CRITLEVEL			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.206. CRITICAL_LEV_GAS

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Critical level gas			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)	counts		i18	Y
Range				

5.2.207. CRITICAL_LEV_SAMP

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Critical level in counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.208. CSC_MOD_FLAG

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Flag indicating whether or not the nuclide activity was modified by the cascade summing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.209. CSC_MOD_FLAG

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Flag indicating whether or not the nuclide's activity was modified by the cascade summing. A value of 1= nuclide was modified, zero indicates that the nuclide was not modified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.210. CSC_MOD_FLAG

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.211. CSC_MOD_FLAG

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.212. CSC_RATIO

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	CSC correction factor			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.213. CSC_RATIO

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Flag that indicates if cascade summing modified a nuclide: 1 = nuclide was modified, 0 = nuclide was not modified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.214. CSC_RATIO

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Modifier used by analysis to update active_key and mda			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.215. CSC_RATIO_ERR

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.216. CSC_RATIO_ERR

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	Error in CSC			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.217. CSC_RATIO_ERR

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Multiplier used by analysis to update activ_key and mda.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.218. DATA_TYPE

Tables	GARDS_BASELINE (RMSMAN)			
Description	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	N
Range	data_type IN {B, C, D, Q, S}			

5.2.219. DATA_TYPE

Tables	GARDS_REFLINE_MASTER (RMSMAN), GARDS_XE_REFLINE_MASTER (RMSMAN)			
Description	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	data_type IN {B, C, D, Q, S}			

5.2.220. DATA_TYPE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_UPDATE_REFLINES (RMSMAN)			
Description	Type of sample; an uncontaminated crushed blank filter (B), calibration background (C), detector background (D), quality control (Q), or an actual sample (S).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	data_type IN {B, C, D, Q, S}			

5.2.221. DATA_TYPE

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Type of data message (current choices include: ALERT, MET, SOH, SPHD-B, SPHD-C, SPHD-D, SPHD-F, SPHD-P, SPHD-Q, SPHD-G)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)			a10	Y
Range	data_type IN { ALERT, MET, SOH, SPHD-B, SPHD-C, SPHD-D, SPHD-F, SPHD-P, SPHD-Q, SPHD-G }			

5.2.222. DATA_TYPE

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Data type parsed from message header (e.g., RMSSOH, MET, SAMPLEPHD, etc.)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)			a12	Y
Range				

5.2.223. DATE_BEGIN

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Detector initialization date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.224. DATE_BEGIN

Tables	GARDS_STATIONS (RMSMAN)			
Description	Station initialization date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.225. DATE_END

Tables	GARDS_DETECTORS (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Station/Detector initialization date.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.226. DATE_RECEIVED

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Date that sample was received			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.227. DATE_VALUE

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	Date of the Trendvue plot			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.228. DB_NAME

Tables	GARDS_ROLES (RMSMAN)			
Description	Name of corresponding database role			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(35)			a35	N
Range				

5.2.229. DB_NAME

Tables	GARDS_PERMISSIONS (RMSMAN)			
Description	Name of corresponding role in the database			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(35)			a35	N
Range				

5.2.230. DECAY_MODE

Tables	GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN), GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Type of decay; B = beta particle, C = conversion electron			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	decay_mode IN {B, C}			

5.2.231. DEF_DET_BKGND_SAMPLE_ID

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Default detector background sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.232. DEF_GAS_DECAY_TIME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Default gas decay time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.233. DEFAULT_METHOD

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Default method			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.234. DEFAULT_ROLE

Tables	GARDS_USERS_ROLES (RMSMAN)			
Description	Integer representation of the default role name to be assigned to the user			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.235. DEGREE

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN)			
Description	Degree of efficiency equation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.236. DELTA

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Value of a variable used in bounds estimation (EWMA algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.237. DESCRIPTION

Tables	GARDS_LAB_CATEGORY_DESCRIPTION (RMSMAN)			
Description	Description of the lab_sample_category			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.238. DESCRIPTION

Tables	GARDS_CODES (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Description of the code, detector, or station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)			a40	Y
Range				

5.2.239. DESCRIPTION

Tables	GARDS_SAMPLE_DESCRIPTION (RMSAUTO)			
Description	Comments			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(512)			a512	Y
Range				

5.2.240. DESCRIPTION

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Description of the code, detector, or station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(80)			a80	Y
Range				

5.2.241. DESCRIPTION

Tables	GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN)			
Description	General description of occurrence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(80)			a80	Y
Range				

5.2.242. DET

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Determinant of the weighted design matrix, a measure of the spread of fitted data points and the error in the fitted points			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.243. DET_BACK_USED

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Determines whether the detector background is in use or not (1 = YES, 0 = NO)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.244. DET_BKGND_COUNT

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Detector background counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.245. DET_BKGND_COUNT_ERR

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.246. DET_BKGND_ID

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Unique identifier for the gas background used in the calculation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.247. DET_BKGND_USED

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Flag indicating whether or not to take into account the detector background measurements			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.248. DET_BKGND_USED

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Tell the process whether detector background measurements should be taken into account when processing a sample. 0 means do not use, 1 indicates use.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	det_bkgnd_used IN { 0,1}			

5.2.249. DETECTABILITY

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Detectability			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NULL	f9.6	Y
Range				

5.2.250. DETECTOR_BACK

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Detector background counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.251. DETECTOR_BACK_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Detector background counts.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.252. DETECTOR_CODE

Tables	GARDS_DETECTORS (RMSMAN), GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Detector code parsed from import message			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(9)			a9	Y
Range				

5.2.253. DETECTOR_ID

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Detector identification code.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.254. DETECTOR_ID

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_DETECTOR_STD_SPECTRA (RMSAUTO), GARDS_CSC_MODCOEFF_LIB (RMSMAN), GARDS_IRF (RMSMAN), GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_STADET (RMSMAN)			
Description	Unique detector identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.255. DETECTOR_ID

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Detector identifier (relates to gards_detectors.detector_id) Canberra Parameter: CAM_L_SSPI6			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.256. DETECTOR_ID

Tables	GARDS_BASELINE (RMSMAN), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN), GARDS_QCHISTORY (RMSAUTO), GARDS_QCHISTORY (RMSMAN), GARDS_QCPARAMS (RMSMAN), GARDS_QCTARGETS (RMSMAN), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SOH_CHAR_DATA (RMSAUTO), GARDS_SOH_HEADER (RMSAUTO), GARDS_SOH_NUM_DATA (RMSAUTO), GARDS_SOH_SENSOR_DATA (RMSAUTO), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN), GARDS_UPDATE_REFLINES (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Unique detector identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.257. DEV_TOLERANCE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Tolerance			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NULL	i10	Y
Range				

5.2.258. DFILE

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Name of file containing the data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range				

5.2.259. DIR

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Full path to the data file referred to in the DFILE column			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.260. DISPLAY_DETECTOR

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	1 or 0; if 1, then the parameter is associated with a detector and Trendvue will allow users to query by detector; if it is 0, then this parameter is station only and no detectors will appear in the Trendvue dialog box			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.261. DISPLAY_STATION

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	Flag indicating if the SOH parameter is associated with a detector; 1 = the parameter is associated with a detector and Trendvue should allow users to query by detector, 0 = the parameter is station only and no detectors will appear in the Trendvue dialog box.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.262. DLID

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Unique data log identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.263. DO_BACK

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Background subtraction indicator Canberra Parameter: CAM_L_PRNOBACKCOR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.264. DO_CSC

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Flag that indicates whether or not background subtraction should be performed: 1 = yes, 0 = no.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	do_back IN {0,1}			

5.2.265. DO_PD_CALC

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Flag that indicates how cascade summing should default: 0 = default to off, 1 = default to on.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.266. DO_PD_CALC

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Flag that indicates how cascade summing should default: 0 = default to off, 1 = defaults to on.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.267. DO_RERU

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	0/1 flag that indicates whether or not a resolution update should be performed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.268. DO_RERU

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Flag that indicates if a resolution update was performed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.269. DSIZE

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Size of data file in bytes			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.270. DTG

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN)			
Description	Comment entry date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date		a21	Y
Range	any valid ORACLE date			

5.2.271. DTG

Tables	GARDS_FPE (RMSAUTO), GARDS_FPE (RMSMAN)			
Description	Data product generation date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.272. DTG

Tables	GARDS_ALERTS (RMSAUTO)			
Description	Date alert received			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.273. DTG

Tables	GARDS_QAT_NOTIFY (RMSMAN)			
Description	Date comment was entered			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.274. DTG

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Date included within message (UTC)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.275. DTG

Tables	GARDS_STATUS_HISTORY (RMSMAN)			
Description	Date of change			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.276. DTG

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Date sent			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.277. DTG

Tables	GARDS_QCTARGETS (RMSMAN)			
Description	Decay correction reference date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.278. DTG_BEGIN

Tables	GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN)			
Description	Notification initialization date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	N
Range	any valid ORACLE date			

5.2.279. DTG_BEGIN

Tables	GARDS_MDAS2REPORT (RMSMAN), GARDS_SOH_CHAR_DATA (RMSAUTO), GARDS_SOH_NUM_DATA (RMSAUTO)			
Description	Begin date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.280. DTG_BEGIN

Tables	GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	Initial date of sensor reading			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.281. DTG_BEGIN

Tables	GARDS_SOH_HEADER (RMSAUTO)			
Description	Period begin time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.282. DTG_BEGIN

Tables	GARDS_NUCL2QUANTIFY (RMSMAN)			
Description	Start of reporting period			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.283. DTG_END

Tables	GARDS_MDAS2REPORT (RMSMAN), GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN), GARDS_NUCL2QUANTIFY (RMSMAN), GARDS_SOH_CHAR_DATA (RMSAUTO), GARDS_SOH_HEADER (RMSAUTO), GARDS_SOH_NUM_DATA (RMSAUTO), GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	Start date of applicability, notification initialization date, or the reporting period.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.284. ECAL_RANGE_MAX

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Maximum detector calibration energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.285. ECR_SLOPE

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Default ECR slope			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.286. EFF_ERROR

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Uncertainty of efficiency Canberra Parameter: CAM_F_PSEFERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.287. EFFIC

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Efficiency at energy Canberra Parameter: CAM_F_NLEFFICIENCY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.288. EFFIC_ENERGY

Tables	GARDS_TOTAL_EFFIC (RMSAUTO), GARDS_TOTAL_EFFIC (RMSMAN)			
Description	Efficiency energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.289. EFFIC_ENERGY

Tables	GARDS_EFFICIENCY_PAIRS (RMSAUTO), GARDS_EFFICIENCY_PAIRS (RMSMAN), GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN)			
Description	Efficiency energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.290. EFFIC_ERR

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Uncertainty of efficiency Canberra Parameter: CAM_F_NLEFFERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.291. EFFIC_ERROR

Tables	GARDS_TOTAL_EFFIC (RMSAUTO), GARDS_TOTAL_EFFIC (RMSMAN)			
Description	Uncertainty of efficiency			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.292. EFFIC_ERROR

Tables	GARDS_EFFICIENCY_PAIRS (RMSAUTO), GARDS_EFFICIENCY_PAIRS (RMSMAN), GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN)			
Description	Uncertainty of efficiency			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.293. EFFICIENCY

Tables	GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN)			
Description	Efficiency			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.294. EFFICIENCY

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Efficiency Canberra Parameter: CAM_F_PSEFF			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.295. EFFICIENCY

Tables	GARDS_EFFICIENCY_PAIRS (RMSAUTO), GARDS_EFFICIENCY_PAIRS (RMSMAN)			
Description	Efficiency.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.296. EFFICIENCY

Tables	GARDS_TOTAL_EFFIC (RMSAUTO), GARDS_TOTAL_EFFIC (RMSMAN)			
Description	Uncertainty of efficiency.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.297. EFFTYPE

Tables	GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN)			
Description	Efficiency type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(8)			a8	Y
Range				

5.2.298. ELEVATION

Tables	GARDS_STATIONS (RMSMAN)			
Description	Elevation (m)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	metres		f8.5	Y
Range				

5.2.299. EMAIL_ADDR

Tables	GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN)			
Description	Recipient email addresses			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(80)			a80	Y
Range				

5.2.300. EMAIL_ADDRESS

Tables	GARDS_POC (RMSMAN)			
Description	Email address of point of contact			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)			a50	N
Range				

5.2.301. END_DATE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Date initialization ended			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.302. END_DATE

Tables	GARDS_IRF (RMSMAN)			
Description	End date of bound applicability			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	01-Jan-3000	a21	Y
Range	any valid ORACLE date			

5.2.303. END_DATE

Tables	GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN)			
Description	Final date of pairs			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.304. END_DATE

Tables	GARDS_STATIONS_SCHEDULE (RMSMAN)			
Description	Final date of schedule			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.305. END_DATE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Termination date of parameters			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.306. END_ENV_TIME

Tables	GARDS_ENVIRONMENT (RMSAUTO)			
Description	End date of environment data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date		NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.307. END_ENV_TIME_SEC

Tables	GARDS_ENVIRONMENT (RMSAUTO)			
Description	End date of environmental data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	seconds		g8.5	Y
Range				

5.2.308. END_TIME

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	End time of measurement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.309. END_TIME

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	End time of interval			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)			g8.5	Y
Range				

5.2.310. ENDTIME

Tables	RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Epoch time. Epochal time is given as seconds and fractions of a second since 00:00:00.000 01-Jan-1970, and is stored in a double-precision floating number. This represents the endtime of the data segment.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	9999999999999	f17.5	Y
Range	endtime <+9999999999.999			

5.2.311. ENERGY

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	Energy of nuclide line			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	N
Range				

5.2.312. ENERGY

Tables	GARDS_IRF (RMSMAN)			
Description	Energy			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.313. ENERGY

Tables	GARDS_QAT_NOTIFY (RMSMAN)			
Description	Energy (keV) referenced by comment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.314. ENERGY

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.315. ENERGY

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Energy at peak centroid (keV) Canberra Parameter: CAM_F_PSENERGY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.316. ENERGY

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Energy of nuclide			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.317. ENERGY

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Line energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.318. ENERGY

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN)			
Description	Line energy (keV) Canberra Parameter: CAM_F_NLENERGY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.319. ENERGY

Tables	GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Line energy (keV) Canberra parameter: CAM_F_NLENERGY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.320. ENERGY

Tables	GARDS_QCTARGETS (RMSMAN)			
Description	Nuclide line energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.321. ENERGY_ERR

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN), GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN), GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Line energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range	0 <= energy			

5.2.322. ENERGY_HIGH

Tables	GARDS_BASELINE (RMSMAN)			
Description	Higher energy of the bin			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.323. ENERGY_LOW

Tables	GARDS_BASELINE (RMSMAN)			
Description	Lower energy of the bin			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.324. ENERGY_SPAN

Tables	GARDS_SPECTRUM (RMSAUTO)			
Description	Total energy span of detector (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.5	Y
Range				

5.2.325. ENERGY_TOL

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Tolerance for nuclide identification Canberra Parameter: CAM_F_TOLERANCE			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.326. ENERGY_UNITS

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Energy units			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(3)			a3	Y
Range	energy_units IN {MeV, keV}			

5.2.327. ENTRY_DATE

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Date and time of error entry			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.328. ENTRY_DATE

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Date sample was entered into database			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.329. ENTRY_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Date when RLR was entered into IDC database			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.330. ERROR

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	The variance for the estimate			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.331. ERROR

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Percent error in activity			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < error <= 100			

5.2.332. ERROR_TEXT

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Text associated with the error			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a20	Y
Range				

5.2.333. ESTIMATE

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	The estimate (SpectraContribution * NumberOfDecays)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.334. ETOL

Tables	GARDS_QCPARAMS (RMSMAN)			
Description	Energy tolerance used to match peaks with energies (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.335. EVENT

Tables	GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN)			
Description	Type of occurrence (choices are: ALERT, FISS_FOUND, NIC_SIG34, NIC_SIG5, QC_ERROR, QC_WARNING, RADOPSCAL, RMS_ADMIN)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)			a10	N
Range				

5.2.336. F_LINEAR

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	0/1 flag for forcing ECR to be first-order (typically 0)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	f_linear IN { 0, 1 }			

5.2.337. F_LINEAR

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	0/1 flag for forcing ECR to be first-order (typically 0)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.338. FILE_SIZE

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Size of data file in bytes			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.339. FILENAME

Tables	GARDS_HISTOGRAM (RMSAUTO)			
Description	Name of file containing histogram data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a25	Y
Range				

5.2.340. FILENAME

Tables	GARDS_SPECTRUM (RMSAUTO)			
Description	Name of file containing spectrum data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.341. FILENAME

Tables	GARDS_RLR (RMSAUTO)			
Description	Name of file containing the RLR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.342. FILENAME

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Import message filename			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(512)			a51	Y
Range				

5.2.343. FIRST_NAME

Tables	GARDS_POC (RMSMAN)			
Description	First name of point of contact			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)			a20	Y
Range				

5.2.344. FIT_SINGLETS

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Fit singlets flag Canberra param: CAM_L_PRFIT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.345. FIT_SINGLETS

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Fit singlets flag, Canberra Parameter: CAM_L_PRFIT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.346. FITTED

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak fit indicator Canberra Parameter: CAM_F_PSPPFIT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.347. FITTED

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Peak fit indicator Canberra Parameter: CAM_L_PSPPFIT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.348. FIX_FWHM

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Fixed FWHM during peak search flag Canberra Parameter: CAM_L_PRFIXFWHM			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.349. FIX_FWHM

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Fixed FWHM during peak search flag Canberra param: CAM_L_PRFIXFWHM			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.350. FLAG

Tables	GARDS_QC_RESULTS (RMSAUTO), GARDS_QC_RESULTS (RMSMAN)			
Description	Quality control flag			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range				

5.2.351. FLAG_ID

Tables	GARDS_SAMPLE_FLAGS (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSMAN)			
Description	Flag identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.352. FLAG_ID

Tables	GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN)			
Description	Unique identifier for an event screening test			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			i8	N
Range				

5.2.353. FLOW_RATE

Tables	GARDS_ENVIRONMENT (RMSAUTO)			
Description	Flow rate through filter (m3/h)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	m3/h		g8.5	Y
Range				

5.2.354. FOFF

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Offset into the data file (bytes)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	Bytes		i10	Y
Range				

5.2.355. FPID

Tables	GARDS_FPE (RMSAUTO), GARDS_FPE (RMSMAN)			
Description	Unique fission product identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.356. FWHM

Tables	GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN)			
Description	Full width half maximum (FWHM) value of QC peak			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.357. FWHM

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Full width at half maximum Canberra Parameter: CAM_F_PSFWHM			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.358. FWHM_ERR

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak width at half the maximum peak height.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range	0.0 <= fwhm			

5.2.359. FWHM_MULT_WIDTH

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Number of FWHMs to search to determine multiplets Canberra Parameter: CAM_F_PRFWHMPKMULT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.360. FWHM_MULT_WIDTH

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Number of FWHMs to search to determine multiplets Canberra param: CAM_F_PRFWHMPKMULT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.361. G_CHAN_START

Tables	GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN)			
Description	Gamma boundary start channel			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.362. G_CHAN_STOP

Tables	GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN)			
Description	Gamma boundary start channel.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.363. G_CHANNELS

Tables	GARDS_HISTOGRAM (RMSAUTO)			
Description	Number of gamma channels in histogram			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.364. G_ENERGY_SPAN

Tables	GARDS_HISTOGRAM (RMSAUTO)			
Description	Number of gamma channels in histogram.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.365. G_ENERGY_START

Tables	GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN)			
Description	Gamma boundary start energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.366. G_ENERGY_STOP

Tables	GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN)			
Description	Gamma boundary stop energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.367. GAINCHANGE

Tables	GARDS_QCPARAMS (RMSMAN)			
Description	Gain first difference tolerance			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.368. GAINSHIFT

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Gain change for matching, percent (typically 0.1)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range	gainshift IN { 0, 1 }			

5.2.369. GAINSHIFT

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Gain change for matching, percent (typically 0.1)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.370. GAMMA

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Value of a variable used in bounds estimation (EWMA algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.371. GAMMA_COEFF1

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Gamma coefficient 1 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.372. GAMMA_COEFF1

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Zero shift of the gamma ECR equation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.373. GAMMA_COEFF2

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Gamma coefficient 2 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.374. GAMMA_COEFF2

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Gain of the gamma ECR equation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.375. GAMMA_COEFF3

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Gamma coefficient 3 (energy to channel)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.376. GAMMA_COEFF3

Tables	GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN)			
Description	Linear coefficient of the gamma ECR equation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.377. GAMMA_ECR_ORDER

Tables	GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Determines whether the gamma ECR is linear, quadratic or manually defined			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.378. GAMMA_ECR_ORDER

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN)			
Description	Determines whether the gamma ECR is linear, quadratic, or manually defined			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.379. GAMMA_ECR_ORDER

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Whether the gamma ECR is linear or quadratic			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.380. GAS_BACK_USED

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Determines whether the gamma ecr is linear, quadratic, or manually defined; 1 = linear, 2 = quadratic, 3 = manual (ecr is set on command line).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.381. GAS_BKGD_MEASUREMENT_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Unique measurement id (MID) of the gas background acquisition associated with the sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(31)			a31	Y
Range				

5.2.382. GAS_BKGND_COUNT

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Gas background counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.383. GAS_BKGND_COUNT_ERR

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Value of the specified SOH parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.384. GAS_BKGND_GROSS

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Gas background gross			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)	counts		i8	Y
Range				

5.2.385. GAS_BKGND_ID

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Unique gas background identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.386. GAS_BKGND_USED

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Tell the process whether gas background measurements should be taken into account when processing a sample. 0 means ?do not use?, 1 indicates ?use?.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	gas_bkgnd_used IN { 0,1}			

5.2.387. GAS_BKGND_USED

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Whether the gas background was used			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.388. GEOMETRY

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Sample geometry Canberra param: CAM_T_GEOMETRY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(17)			a17	Y
Range				

5.2.389. GROSS

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI before processing			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.390. GROSS

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI before processing			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.391. GROSS_ERR

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.392. GROSS_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI before processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.393. HALFLIFE

Tables	GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Half life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.394. HALFLIFE

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Half-life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.395. HALFLIFE

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Half-life in seconds (S), hours (H), days (D), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.396. HALFLIFE

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Half-life in seconds (S), hours (H), minutes (M), or years (Y) Canberra Parameter: CAM_T_NCLHLFLIFE			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range	halflife IN { S, M, H, Y}			

5.2.397. HALFLIFE

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Half-life of nuclide			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.398. HALFLIFE

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Half-life of the nuclide			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)	seconds		a23	Y
Range				

5.2.399. HALFLIFE_ACT

Tables	GARDS_AUX_LIB (RMSMAN)			
Description	Actual half-life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.400. HALFLIFE_ACT_ERR

Tables	GARDS_AUX_LIB (RMSMAN)			
Description	Actual half-life.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.401. HALFLIFE_ERR

Tables	GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Level of confidence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.402. HALFLIFE_ERR

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Uncertainty of half-life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)	seconds		a23	Y
Range				

5.2.403. HALFLIFE_ERR

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Uncertainty of half-life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(23)			a23	Y
Range				

5.2.404. HALFLIFE_SEC

Tables	GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN)			
Description	Half life in seconds			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	seconds		f17.5	Y
Range	halflife_sec > 0			

5.2.405. HALFLIFE_SEC

Tables	GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Half life in seconds			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.406. HALFLIFE_SEC

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Uncertainty of half-life			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	seconds		g8.5	Y
Range				

5.2.407. HALFLIFE_SEC

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Uncertainty of half-life.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	seconds		g8.5	Y
Range				

5.2.408. HOLD

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO)			
Description	Flag that hold categorization bounds fixed and does not update values (0 = proceed, 1 = wait)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	hold IN {0, 1}			

5.2.409. HOLD

Tables	GARDS_SAMPLE_CAT (RMSMAN)			
Description	Flag that hold categorization bounds fixed and does not update values (0 = proceed, 1 = wait)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.410. ID_PERCENT

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Nuclide percentage			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < id_percent <= 100			

5.2.411. ID_PERCENT

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Nuclide percentage			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.5	Y
Range				

5.2.412. IDC_SUMMARY

Tables	GARDS_RLR_CONCLUSIONS (RMSAUTO)			
Description	IDC findings			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.413. IDED

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Peak identification indicator; 1 = peak was associated with a nuclide by the automated analysis, 0 = peak was not associated with a nuclide by the automated analysis (not updated by the ROI interface) Canberra Parameter: CAM_L_PSPKNOWN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.414. IDED

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak identification indicator; 1 = peak was associated with a nuclide by the automated analysis, 0 = peak was not associated with a nuclide by the automated analysis (not updated by the ROI interface) Canberra Parameter: CAM_L_PSPKNOWN			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.415. INCLUDE_STATIONS

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Flag to include or exclude stations			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.416. INDEX_NO

Tables	GARDS_BASELINE (RMSMAN)			
Description	Index of the energy bin			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	i10	N
Range				

5.2.417. INIT_BEGIN_DATE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Start date for initialization data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.418. INIT_END_DATE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Start date for initialization data.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.419. INPUT_FILE_NAME

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Input data filename			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.420. INTERFERENCE

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts from interference nuclides			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.421. INTERFERENCE_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts from interference nuclides.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.422. INTVLID

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Unique interval identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.423. INTVLID

Tables	RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Interval identifier. Each interval is assigned a unique positive integer that identifies it in the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	intvlid > 0			

5.2.424. IRF

Tables	GARDS_IRF (RMSMAN)			
Description	Isotope response function			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g17.5	Y
Range				

5.2.425. IRF_ERROR

Tables	GARDS_IRF (RMSMAN)			
Description	Level of confidence			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.426. KB_SENT

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Size of data (KB)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	kB		f8.3	Y
Range				

5.2.427. KEY_FLAG

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN)			
Description	Key line indicator Canberra Parameter: CAM_V_NLF_KEYLINE			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.428. KEY_FLAG

Tables	GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Key line indicator Canberra parameter: CAM_L_NLFKEYLINE			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.429. KEYNAME

Tables	RMS_MIG_LASTID (RMSMIGRATE)			
Description	Identifier type. This column contains the actual name of a key whose last assigned numeric value is saved in keyvalue.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)		NOT ALLOWED	a15	N
Range	keyname IN {man_intvlid, auto_intvlid}			

5.2.430. KEYVALUE

Tables	RMS_MIG_LASTID (RMSMIGRATE)			
Description	Current identifier value. This column maintains the last assigned value (a positive integer) of the counter for the specified keyname. The keyvalue is the last counter value used for the column keyname. Key values are maintained in the database to ensure uniqueness.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)		NOT ALLOWED	i8	N
Range	keyvalue > 0			

5.2.431. LAB_DETECTOR_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Unique laboratory detector identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			a9	Y
Range				

5.2.432. LAB_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Unique laboratory identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			a5	Y
Range				

5.2.433. LAB_RECEIPT_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Date of sample receipts at the laboratory			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.434. LAB_SAMPLE_CATEGORY

Tables	GARDS_LAB_CATEGORY_DESCRIPTION (RMSMAN)			
Description	Report sample category (A|B|C|D|E)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a1	Y
Range				

5.2.435. LAB_SAMPLE_CATEGORY

Tables	GARDS_RLR (RMSAUTO)			
Description	Report sample category (A|B|C|D|E)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a10	Y
Range				

5.2.436. LAB_SUMMARY

Tables	GARDS_RLR_CONCLUSIONS (RMSAUTO)			
Description	Laboratory findings and conclusions			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.437. LAST_MIG_DATE

Tables	RMSAUTO_DATE (RMSMIGRATE), RMSMAN_DATE (RMSMIGRATE)			
Description	Last date of database migration.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.438. LAST_NAME

Tables	GARDS_POC (RMSMAN)			
Description	Last name of point of contact			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(50)			a50	Y
Range				

5.2.439. LAT

Tables	GARDS_DETECTORS (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Latitude (degrees)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	degrees		f8.5	Y
Range				

5.2.440. LC

Tables	GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Critical level for the peak (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.441. LC

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN)			
Description	Critical level for the peak (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			i10	Y
Range				

5.2.442. LC

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Critical level for the peak (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.443. LC

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Critical level for the peak (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.444. LC

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Critical level for the peak (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.445. LC_ABSCISSA

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Confidence level for the calculation of critical level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.446. LC_ABSCISSA

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	The confidence interval used in the critical level calculation. The value in the table corresponds to the abscissa of a confidence interval. This means that a 95% confidence interval should be represented in the database as 1.6449.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			f8.5	Y
Range				

5.2.447. LC_ABSCISSA

Tables	GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN)			
Description	Abscissa of the normal distribution corresponding to a confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.448. LC_ABSCISSA

Tables	GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Abscissa of the normal distribution corresponding to a confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.449. LC_ABSCISSA

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Abscissas of the normal distribution corresponding to a confidence level; a value of 1.645 corresponds to a 95% confidence interval for the peak critical level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.450. LD

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Detection level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.451. LDDATE

Tables	GARDS_QCHISTORY (RMSAUTO), GARDS_QCHISTORY (RMSMAN)			
Description	Date of quality control processing			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.452. LDDATE

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Load date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.453. LDDATE

Tables	RMSAUTO_DATE (RMSMIGRATE), RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_DATE (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE), RMS_MIG_LASTID (RMSMIGRATE)			
Description	Load date. The date and time the record was inserted into the database.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	ORACLE Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.454. LEFT_CHAN

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Left channel of peak Canberra Parameter: CAM_L_PSLEFT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.455. LEFT_FWHM_LIM

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Left ROI FWHM limit Canberra Parameter: CAM_F_PRFWHMPKLEFT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.456. LEFT_FWHM_LIM

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Left ROI FWHM limit Canberra param: CAM_F_PRFWHMPKLEFT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.457. LINE_COMMENT

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Description of line properties			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(500)			a50	Y
Range				

5.2.458. LINE_TYPE

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Description of line properties.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.459. LINECOMMENT

Tables	GARDS_NUCL_LINES_LIB (RMSMAN)			
Description	Comment associated with nuclide line			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1500)			a15	Y
Range				

5.2.460. LON

Tables	GARDS_DETECTORS (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Longitude (degrees)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	degrees		f8.5	Y
Range				

5.2.461. LOWER_BOUND

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Lower limit of the amount of a nuclide that can be acceptably found			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.462. LOWER_LIMIT

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Lower limit bound of the test			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.463. LOWER_ROI_NUMBER

Tables	GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN)			
Description	ROI number associated with the lower ROI			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.464. MAX_ACQUISITION_TIME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Maximum amount of time accepted for the measurement			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.465. MAX_COLLECTION_TIME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Maximum amount of time accepted for sample collection			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.466. MAX_MDC

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Maximum MDC value			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.467. MAX_QC_DEV

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Maximum deviation of the quality check (integer)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.468. MAX_QC_DEV

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Threshold value for calibration deviation from qc spectra			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range	>0			

5.2.469. MAX_REPORTING_TIME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Maximum amount of time accepted for reporting			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.470. MAX_SAMPLE_ID

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Foreign key			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.471. MAX_T_TIME

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Maximum allowable value for t_time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.472. MDA

Tables	GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN)			
Description	Minimum detectable activity (mBq/m3)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.473. MDA

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_F_NLMDA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.474. MDA

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Minimum detectable activity (mBq/m3) Canberra Parameter: CAM_G_NCLMDA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range				

5.2.475. MDA_ERR

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Minimum detectable activity uncertainty (mBq/m3) Canberra Parameter: CAM_G_NCLMDAERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range	mda >= 0.0			

5.2.476. MDA_ERR

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Minimum detectable activity.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range	mda >= 0.0			

5.2.477. MDA_LEVEL

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	MDA confidence factor (percent) Canberra Parameter: CAM_F_MDACONFID			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < mda_level <= 100			

5.2.478. MDA_LEVEL

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	MDA confidence factor Canberra Parameter: CAM_F_MDACONFID			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.479. MDA_MAX

Tables	GARDS_MDAS2REPORT (RMSMAN)			
Description	Maximum detectable activity			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range	mda >= 0.0			

5.2.480. MDA_MIN

Tables	GARDS_MDAS2REPORT (RMSMAN)			
Description	Minimum detectable activity			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mBq/m3		g8.5	Y
Range	mda >= 0.0			

5.2.481. MDC

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Minimum detectable concentration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.482. MDC_WIDTH

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Baseline width used for MDA calculation Canberra param: CAM_F_VPWIDTH			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.483. MDI

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Minimum detectable intensity			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.484. MEASUREMENT_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Unique detection identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(31)			a31	Y
Range				

5.2.485. MEMORY

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Gas background counts			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.486. MEMORY_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Gas background (that is, "memory effect") counts.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.487. MESG

Tables	DEBUG (RMSAUTO), DEBUG (RMSMAN)			
Description	Debug message			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(512)			a51	Y
Range				

5.2.488. MET_ID

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Unique meteorological data identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.489. METHOD

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	The method that has been used (SSM or NCC)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.490. METHOD_ID

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Method identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.491. METHOD_ID

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Method identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.492. METHOD_TYPE

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Method identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.493. MIN_LOOKUP

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Minimum library lookup tolerance, keV (typically 0.2)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.494. MIN_LOOKUP

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Minimum library lookup tolerance, keV (typically 0.2)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.495. MIN_SAMPLE_AIR_FLOW

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Minimum accepted air flow from the sample measurement			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.496. MIN_SAMPLE_ID

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Foreign key			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.497. MIN_SAMPLE_VOLUME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Minimum accepted sample volume from the sample measurement			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.498. MIN_T_TIME

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Minimum allowable value for t_time			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.499. MIN_XE_VOLUME

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Minimum accepted volume			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.500. MODDATE

Tables	GARDS_ALERTS (RMSAUTO), GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_AUX_LIB (RMSMAN), GARDS_AUX_LINES_LIB (RMSMAN), GARDS_BASELINE (RMSMAN), GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_DETECTOR_STD_SPECTRA (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSMAN), GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN), GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN), GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN), GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN), GARDS_BG_STD_SPECTRA (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN), GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN), GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_B_RESOLUTION_PAIRS (RMSAUTO), GARDS_B_RESOLUTION_PAIRS (RMSMAN), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_CAT_CRITERIA_TESTS (RMSMAN), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_CODES (RMSMAN), GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN), GARDS_COMMENTS_DEFS (RMSMAN), GARDS_CSC_MODCOEFF_LIB (RMSMAN), GARDS_DATA_LOG (RMSAUTO), GARDS_DBROLE_OWNER (RMSMAN), GARDS_DETECTORS (RMSMAN), GARDS_DIST_SAMPLE_QUEUE (RMSMAN), GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_EFFICIENCY_PAIRS (RMSAUTO), GARDS_EFFICIENCY_PAIRS (RMSMAN), GARDS_EFFICIENCY_VGSL_PAIRS (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_COV (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN), GARDS_ENERGY_PAIRS (RMSAUTO), GARDS_ENERGY_PAIRS (RMSMAN), GARDS_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_ENVIRONMENT (RMSAUTO), GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN), GARDS_FPE (RMSAUTO), GARDS_FPE (RMSMAN), GARDS_HISTOGRAM (RMSAUTO), GARDS_INTERVAL (RMSAUTO), GARDS_IRF (RMSMAN), GARDS_LAB_CATEGORY_DESCRIPTION (RMSMAN), GARDS_MDAS2REPORT (RMSMAN), GARDS_MET_DATA (RMSAUTO), GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN), GARDS_NUCL2QUANTIFY (RMSMAN), GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LIB (RMSMAN),

	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN), GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN), GARDS_PERMISSIONS (RMSMAN), GARDS_POC (RMSMAN), GARDS_PROCESSING_ERRORS (RMSMAN), GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN), GARDS_PRODUCT_TYPE (RMSMAN), GARDS_QAT_CONFIG (RMSMAN), GARDS_QAT_NOTIFY (RMSMAN), GARDS_QAT_QUERY_FILTER (RMSMAN), GARDS_QCHISTORY (RMSMAN), GARDS_QCPARAMS (RMSMAN), GARDS_QCTARGETS (RMSMAN), GARDS_QC_RESULTS (RMSAUTO), GARDS_QC_RESULTS (RMSMAN), GARDS_QUERY_RESULTS (RMSAUTO), GARDS_QUERY_RESULTS (RMSMAN), GARDS_RECEIPT_LOG (RMSAUTO), GARDS_REFLINE_MASTER (RMSMAN), GARDS_RELEVANT_NUCLIDES (RMSMAN), GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN), GARDS_RESOLUTION_CAL_COV (RMSAUTO), GARDS_RESOLUTION_CAL_COV (RMSMAN), GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN), GARDS_RESOLUTION_PAIRS (RMSAUTO), GARDS_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_RLR (RMSAUTO), GARDS_RLR_CONCLUSIONS (RMSAUTO), GARDS_RLR_OBJECTIVE (RMSAUTO), GARDS_RLR_RATIOS (RMSAUTO), GARDS_RLR_RESULTS (RMSAUTO), GARDS_RLR_SSREB (RMSAUTO), GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN), GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN), GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN), GARDS_ROI_LIB (RMSMAN), GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN), GARDS_ROLES (RMSMAN), GARDS_ROLES_PERMISSIONS (RMSMAN), GARDS_SAINT_DEFAULT_PARAMS (RMSAUTO), GARDS_SAINT_DEFAULT_PARAMS (RMSMAN), GARDS_SAINT_PROCESS_PARAMS (RMSAUTO), GARDS_SAINT_PROCESS_PARAMS (RMSMAN), GARDS_SAMPLE_AUX (RMSAUTO), GARDS_SAMPLE_CAT (RMSMAN), GARDS_SAMPLE_CERT (RMSAUTO), GARDS_SAMPLE_CERT_LINES (RMSAUTO), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SAMPLE_DESCRIPTION (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN), GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN), GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN), GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO),

	GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_SOH_CHAR_DATA (RMSAUTO), GARDS_SOH_CODE (RMSMAN), GARDS_SOH_HEADER (RMSAUTO), GARDS_SOH_NUM_DATA (RMSAUTO), GARDS_SOH_SENSOR_DATA (RMSAUTO), GARDS_SPECTRUM (RMSAUTO), GARDS_STADET (RMSMAN), GARDS_STATIONS (RMSMAN), GARDS_STATIONS_SCHEDULE (RMSMAN), GARDS_STATION_ASSIGNMENTS (RMSMAN), GARDS_STATUS_HISTORY (RMSMAN), GARDS_TOTAL_EFFIC (RMSAUTO), GARDS_TOTAL_EFFIC (RMSMAN), GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN), GARDS_UPDATE_REFLINES (RMSMAN), GARDS_USERENV (RMSMAN), GARDS_USERS (RMSMAN), GARDS_USERS_ROLES (RMSMAN), GARDS_USER_COMMENTS (RMSAUTO), GARDS_USER_COMMENTS (RMSMAN), GARDS_XE_NUCL_LIB (RMSMAN), GARDS_XE_NUCL_LINES_LIB (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_XE_REFLINE_MASTER (RMSMAN), GARDS_XE_RESULTS (RMSMAN), RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	The date/time at which the row was last modified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.501. MRP_SAMPLE_ID

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	The sample_id of the MRP sample to be used			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.502. MRP_USED

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Column that lists the sample_id of the MRP sample in the event that the mrp_used flag has been set to 1.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	mrp_sample_id >= 0			

5.2.503. MSE

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Mean-squared error of the fit, a measure of how large the residuals are			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.504. MSG_ID

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Message identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.505. MSG_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Message identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.506. MSG_ID

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Unique message identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.507. MUAREA

Tables	GARDS_QCTARGETS (RMSMAN)			
Description	Target area for each nuclide line energy (counts)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.508. MULT

Tables	GARDS_BASELINE (RMSMAN)			
Description	Multiplicand in the baseline formula			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	i10	N
Range				

5.2.509. MULTIPLET

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Multiplet peak indicator Canberra Parameter: CAM_L_PSPMULT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.510. MULTIPLET

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Multiplet peak indicator Canberra Parameter: CAM_PSPMULT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.511. MUWIDTH

Tables	GARDS_QCTARGETS (RMSMAN)			
Description	Target width for each nuclide line energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.512. NAME

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Detector or system name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	N
Range				

5.2.513. NAME

Tables	RMSAUTO_INTERVAL (RMSMIGRATE)			
Description	Name of the data type described by this row. Used as a second-level grouping for intervals in a given class. Examples are AUTO_MISC, AUTO_EFFICIENCY.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	name in {AUTO_AUX, AUTO_BG, AUTO_CONFIG, AUTO_DATA, AUTO_EFFICIENCY, AUTO_ENERGY, AUTO_MISC, AUTO_NUCL, AUTO_OTHERS, AUTO_PEAKS, AUTO_RESOLUTION, AUTO_ROI, AUTO_SAMPLE, AUTO_SOH}			

5.2.514. NAME

Tables	RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Name of the data type described by this row. Used as a second-level grouping for intervals in a given class. Examples are AUTO_MISC, AUTO_EFFICIENCY.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)		NOT ALLOWED	a20	N
Range	name in {MAN_BG, MAN_CONFIG, MAN_EFFICIENCY, MAN_ENERGY, MAN_LIB, MAN_MAR, MAN_MISC, MAN_NUCL, MAN_OTHERS, MAN_PEAKS, MAN_RESOLUTION, MAN_ROI, MAN_SAMPLE}			

5.2.515. NAME

Tables	GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN)			
Description	Name of the Event Screening test.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range				

5.2.516. NAME

Tables	GARDS_USERENV (RMSMAN)			
Description	Variable name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)			a40	N
Range				

5.2.517. NAME

Tables	GARDS_SAINT_DEFAULT_PARAMS (RMSAUTO), GARDS_SAINT_DEFAULT_PARAMS (RMSMAN)			
Description	name of autoSaint default processing flags			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)			a40	N
Range				

5.2.518. NAME

Tables	GARDS_SAINT_PROCESS_PARAMS (RMSAUTO), GARDS_SAINT_PROCESS_PARAMS (RMSMAN)			
Description	name of autoSaint processing flags			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(40)			a40	N
Range				

5.2.519. NAME

Tables	GARDS_PRODUCT_TYPE (RMSMAN)			
Description	Product name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(64)		NOT ALLOWED	a64	Y
Range				

5.2.520. NAME

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Nuclide name Canberra Parameter: CAM_T_NCLNAME			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	N
Range				

5.2.521. NAME

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CSC_MODCOEFF_LIB (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Nuclide name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	N
Range				

5.2.522. NAME

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Nuclide name Canberra Parameter: CAM_T_NCLNAME			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.523. NAME

Tables	GARDS_RELEVANT_NUCLIDES (RMSMAN)			
Description	Nuclide name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a5	Y
Range				

5.2.524. NAME

Tables	GARDS_AUX_LIB (RMSMAN), GARDS_AUX_LINES_LIB (RMSMAN), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_MDAS2REPORT (RMSMAN), GARDS_NUCL2QUANTIFY (RMSMAN), GARDS_NUCL_LIB (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN), GARDS_QCTARGETS (RMSMAN), GARDS_ROI_LIB (RMSMAN), GARDS_XE_NUCL_LIB (RMSMAN), GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Nuclide name.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.525. NAME_D

Tables	GARDS_CSC_MODCOEFF_LIB (RMSMAN)			
Description	Daughter nuclide name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.526. NET

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI after processing			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.527. NET_COUNT

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI after processing			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.528. NET_COUNT_ERR

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Confidence level			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.529. NET_ERR

Tables	GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN)			
Description	Counts in ROI after processing.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		i10	Y
Range				

5.2.530. NEW_STATUS

Tables	GARDS_STATUS_HISTORY (RMSMAN)			
Description	Sample_status after change			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range				

5.2.531. NID_CONFID

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	NID confidence factor (percent) Canberra Parameter: CAM_F_CONFID			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < nid_confid <= 100			

5.2.532. NID_CONFID

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	NID confidence factor Canberra Parameter: CAM_F_CONFID			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.533. NID_FLAG

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Nuclide identification indicator. (0=nuclide was not identified by automatic analysis; 1=nuclide was identified by automatic analysis; -1=nuclide was initially identified by automatic analysis, but later rejected because the concentration was <0.0; 2=; nuclide was initially identified by automatic analysis, but later removed by the Analyst). Canberra Parameter: CAM_G_NCLFIDENT.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	nid_flag IN {-1, 0, 1, 2}			

5.2.534. NID_FLAG

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN)			
Description	Nuclide identification indicator. (0=nuclide was not identified by automatic analysis; 1=nuclide was identified by automatic analysis; -1=nuclide was initially identified by automatic analysis, but later rejected because the concentration was <0.0; 2=; nuclide was initially identified by automatic analysis, but later removed by the Analyst). Canberra Parameter: CAM_G_NCLFIDENT.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i2	Y
Range	nid_flag IN {-1, 0, 1, 2}			

5.2.535. NID_FLAG

Tables	GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN)			
Description	Nuclide identification indicator. (0=nuclide was not identified by automatic analysis; 1=nuclide was identified by automatic analysis; -1=nuclide was initially identified by automatic analysis, but later rejected because the concentration was <0.0; 2=; nuclide was initially identified by automatic analysis, but later removed by the Analyst). Canberra Parameter: CAM_G_NCLFIDENT.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.536. NID_FLAG

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Nuclide identification indicator. (0=nuclide was not identified by automatic analysis; 1=nuclide was identified by automatic analysis; -1=nuclide was initially identified by automatic analysis, but later rejected because the concentration was <0.0; 2=; nuclide was initially identified by automatic analysis, but later removed by the Analyst). Canberra Parameter: CAM_G_NCLFIDENT.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i2	Y
Range				

5.2.537. NID_FLAG

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Nuclide identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.538. NID_FLAG

Tables	GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN)			
Description	Whether the nuclide was identified or not			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.539. NO_OF_LOOPS

Tables	GARDS_BASELINE (RMSMAN)			
Description	Number of loops for this bin of the baseline calculation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	i10	N
Range				

5.2.540. NUC_COMMENT

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Nuclide comment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1500)			a15	Y
Range				

5.2.541. NUCL_NAME

Tables	GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Nuclide name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.542. NUCL_NAME

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN), GARDS_QAT_NOTIFY (RMSMAN)			
Description	Nuclide name referenced by comment			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.543. NUCLIDE1

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Nuclide 1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.544. NUCLIDE2

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Nuclide 2			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.545. NUCLIDE_ID

Tables	GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Unique nuclide identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.546. NUCLIDE_ID

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Flag, nuclide identification indicator.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	nid_flag IN {-1, 0, 1, 2}			

5.2.547. NUCLIDE_ID

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Nuclide identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.548. NUCLIDE_ID

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Nuclide identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.549. NUCLIDE_ID

Tables	GARDS_XE_NUCL_LINES_LIB (RMSMAN)			
Description	Nuclide identifier Canberra parameter: CAM_L_NLNUCL			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.550. NUCLIDE_ID

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_LIB (RMSMAN)			
Description	Nuclide number associated with line number Canberra Parameter: CAM_L_NLNUCL			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.551. NUCLIDE_ID

Tables	GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN), GARDS_BG_STD_SPECTRA (RMSAUTO)			
Description	Unique nuclide identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.552. NUCLIDE_LIB

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Nuclide library to be used during analysis			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(96)			a96	Y
Range				

5.2.553. NUCLIDE_LIB

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Nuclide library to be used during analysis Canberra Parameter: CAM_T_EXPLIB			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(96)			a96	Y
Range				

5.2.554. NUCLIDE_NAME

Tables	GARDS_IRF (RMSMAN), GARDS_RLR_RESULTS (RMSAUTO)			
Description	Nuclide name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.555. NUM_LINES

Tables	GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Number of lines			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.556. NUM_LINES

Tables	GARDS_NUCL_LIB (RMSMAN)			
Description	Number of nuclide lines in library			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.557. NUM_SAMPLES

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Number of samples used to collect the average and define the standard deviation (RDC algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.558. NUM_VALUE1

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	First plot value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.559. NUM_VALUE2

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	Second plot value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.560. NUM_VALUE3

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	Third plot value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.561. NUM_VALUE4

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	Fourth plot value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.562. NUMBER_OF_DECAYS

Tables	GARDS_BG_STD_SPECTRA (RMSAUTO)			
Description	Number of decays for this standard spectra			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.563. OFFSET

Tables	GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN)			
Description	Noise offset in QC spectrum			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.564. OLD_STATUS

Tables	GARDS_STATUS_HISTORY (RMSMAN)			
Description	Sample_status before change			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range				

5.2.565. ORIG_SAMPLE_REF_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Original/entire sample reference identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a16	Y
Range				

5.2.566. ORIGINAL_AREA

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Original peak area (counts) Canberra Parameter: CAM_F_PSORIGAREA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.567. ORIGINAL_AREA

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Original peak area (counts) Canberra Parameter: CAM_PSORIGAREA			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.568. ORIGINAL_UNCER

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Original peak area.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		g8.5	Y
Range	original_area > 0			

5.2.569. ORIGINAL_UNCER

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Uncertainty of original peak area (counts) Canberra Parameter: CAM_F_PSORIGERR			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	counts		g8.5	Y
Range	original_area > 0			

5.2.570. OWNER

Tables	GARDS_DBROLE_OWNER (RMSMAN)			
Description	Name of database user who owns the RMS roles for the MAR tool			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)			a12	Y
Range				

5.2.571. PARAM

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	SOH parameter name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	N
Range				

5.2.572. PARAM_CODE

Tables	GARDS_SOH_CHAR_DATA (RMSAUTO)			
Description	Parameter identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.573. PARAM_CODE

Tables	GARDS_SOH_CODE (RMSMAN), GARDS_SOH_NUM_DATA (RMSAUTO)			
Description	SOH parameter code			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.574. PARAM_DISPLAY

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	Parameter text to be displayed in Trendvue			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.575. PARAM_DISPLAY_FLAG

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	Flag indicating whether or not a particular parameter is displayed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.576. PD_MOD_FLAG

Tables	GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN)			
Description	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.577. PD_MOD_FLAG

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN)			
Description	Flag indicating whether or not the nuclide's activity was modified by the parent/daughter calculation. A value of 1= nuclide was modified, zero indicates that the nuclide was not modified.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.578. PEAK

Tables	GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN)			
Description	Peak associated with line Canberra Parameter: CAM_L_NLPEAK			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.579. PEAK

Tables	GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN)			
Description	Peak identifier Canberra Parameter: CAM_L_NLPEAK			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.580. PEAK_END

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Peak search end (keV) Canberra Parameter: CAM_L_PEAKEND			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.581. PEAK_END

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Peak search end (keV) Canberra param: CAM_L_PEAKEND			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.582. PEAK_ID

Tables	GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN), GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.583. PEAK_SENSE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Peak search sensitivity Canberra Parameter: CAM_F_SENSITIVITY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.584. PEAK_SENSE

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Peak search sensitivity Canberra param: CAM_F_SENSITIVITY			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.585. PEAK_SIG

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Peak significance, peak area divided by Lc			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.586. PEAK_SIG

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak significance, peak area divided by lc			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.587. PEAK_START

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Peak search start (keV) Canberra Parameter: CAM_L_PEAKSTART			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.588. PEAK_START

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Peak search start (keV) Canberra param: CAM_L_PEAKSTART			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.589. PEAK_TOL

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Per peak energy tolerance; approximates the energy tolerance at a given peak			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.590. PERMISSION_ID

Tables	GARDS_PERMISSIONS (RMSMAN)			
Description	Unique permission identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.591. PERMISSION_ID

Tables	GARDS_ROLES_PERMISSIONS (RMSMAN)			
Description	Permission identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.592. PERMISSION_NAME

Tables	GARDS_PERMISSIONS (RMSMAN)			
Description	Permission identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	N
Range				

5.2.593. POC_ID

Tables	GARDS_NOTIFY (RMSAUTO), GARDS_NOTIFY (RMSMAN)			
Description	Unique point of contact identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.594. POCID

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Poc identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.595. POCID

Tables	GARDS_POC (RMSMAN)			
Description	Unique point of contact identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.596. POCID

Tables	GARDS_STATIONS (RMSMAN)			
Description	Point of contact identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.597. POLL_TIME

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Number of minutes rms_QAT sleeps between each database poll			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	Minutes		g8.5	Y
Range				

5.2.598. PRESSURE

Tables	GARDS_ENVIRONMENT (RMSAUTO)			
Description	Outside pressure (mbar)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mbar		i4	Y
Range				

5.2.599. PRIORITY_LEVEL

Tables	GARDS_RLR (RMSAUTO)			
Description	Priority level (Urgent or Routine)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(10)			a7	Y
Range				

5.2.600. PROCCLASS

Tables	RMSAUTO_DATE (RMSMIGRATE), RMSMAN_DATE (RMSMIGRATE)			
Description	Process class used to group MIG and PURG processes.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	procclass in {MIG, PURG}			

5.2.601. PROCNAME

Tables	RMSAUTO_DATE (RMSMIGRATE)			
Description	Process name that identifies a group of rows within a process class.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	procname in {AUTO_AUX, AUTO_BG, AUTO_CONFIG, AUTO_DATA, AUTO_EFFICIENCY, AUTO_ENERGY, AUTO_NUCL, AUTO_OTHERS, AUTO_PEAKS, AUTO_RESOLUTION, AUTO_ROI, AUTO_SAMPLE, AUTO_MISC, AUTO_SOH}			

5.2.602. PROCNAME

Tables	RMSMAN_DATE (RMSMIGRATE)			
Description	Process name that identifies a group of rows within a process class.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		NOT ALLOWED	a16	Y
Range	procname in {MAN_BG, MAN_CONFIG, MAN_EFFICIENCY, MAN_ENERGY, MAN_LIB, MAN_MAR, MAN_MISC, MAN_NUCL, MAN_OTHERS, MAN_PEAKS, MAN_RESOLUTION, MAN_ROI, MAN_SAMPLE}			

5.2.603. PRODID

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Not used			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.604. PRODTYPE

Tables	GARDS_PRODUCT_TYPE (RMSMAN)			
Description	Product type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(12)			a12	Y
Range				

5.2.605. PSS

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Peak search significance parameter Canberra parameter: CAM_F_PSSIGNIF			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.606. Q_TIME

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Number of minutes after gards_sample_status.review_date that rms_QAT_auto waits before releasing a sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	Minutes		g8.5	Y
Range				

5.2.607. QC_B_THRESHOLD

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	The value that is used to mask the gamma spectrum in QC control of the spectrum			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.608. QC_B_THRESHOLD

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN)			
Description	Threshold for channels in the histogram used when calculating beta and gamma spectra			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.609. QC_COMMENT

Tables	GARDS_QC_RESULTS (RMSAUTO), GARDS_QC_RESULTS (RMSMAN)			
Description	Quality control comments			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(255)			a225	Y
Range				

5.2.610. QC_ID

Tables	GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	Unique quality control identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.611. QUANTITY

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Air volume sampled.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	m3		f8.5	Y
Range				

5.2.612. QUANTITY

Tables	GARDS_SAMPLE_CERT (RMSAUTO)			
Description	Quantity associated with certificate			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.613. RATED_EFFICIENCY

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Rated efficiency of detector			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.614. RATED_RESOLUTION

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Efficiency of the detector relative to a standard 3 in. x 3 in. (7.62 cm x 7.62 cm) cylindrical NaI(Tl) detector at 1332 keV. The rated efficiency is usually supplied by the detector manufacturer.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range	0 < rated_efficiency < 130			

5.2.615. RATIO_ID

Tables	GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN)			
Description	Ratio identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)			a15	Y
Range				

5.2.616. RECIPIENT_LIST

Tables	GARDS_QAT_NOTIFY (RMSMAN)			
Description	Comma-separated list of users to whom the notification was sent			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(128)			a128	Y
Range				

5.2.617. REFERENCE

Tables	GARDS_AUX_LINES_LIB (RMSMAN)			
Description	Reference for line properties			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.618. REFERENCE_DATE

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Reference date for ratio			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.619. REFPEAK_ENERGY

Tables	GARDS_REFLINE_MASTER (RMSMAN), GARDS_XE_REFLINE_MASTER (RMSMAN)			
Description	Known reference energy for a nuclide			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.620. REFPEAK_ENERGY

Tables	GARDS_UPDATE_REFLINES (RMSMAN)			
Description	Known reference energy for a nuclide			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.621. RELEASE_DATE

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Release date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.622. REPORT_MDA

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN)			
Description	Indicator of whether MDA is to be reported			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.623. REPORT_NUMBER

Tables	GARDS_RLR (RMSAUTO)			
Description	Report number			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i2	Y
Range				

5.2.624. REPORT_TYPE

Tables	GARDS_RLR (RMSAUTO)			
Description	Report type. FIN=Final PRE=Preliminary.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(3)			a3	Y
Range				

5.2.625. RER_INTERCEPT

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Default RER intercept (typically 1.2)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.626. RER_MRP_USED

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Indicates what RER was chosen during analysis			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.627. RER_SLOPE

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Default RER intercept to be used during calculations.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.628. RES_ENERGY

Tables	GARDS_B_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSMAN)			
Description	Resolution energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.629. RES_ENERGY

Tables	GARDS_B_RESOLUTION_PAIRS (RMSAUTO), GARDS_B_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS (RMSAUTO), GARDS_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_RESOLUTION_PAIRS_ORIG (RMSMAN)			
Description	Resolution energy (keV)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range				

5.2.630. RES_ERROR

Tables	GARDS_B_RESOLUTION_PAIRS (RMSAUTO), GARDS_B_RESOLUTION_PAIRS (RMSMAN), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_RESOLUTION_PAIRS (RMSAUTO), GARDS_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_RESOLUTION_PAIRS_ORIG (RMSMAN)			
Description	Resolution energy.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range	0.0 < res_energy			

5.2.631. RESOLUTION

Tables	GARDS_B_RESOLUTION_PAIRS (RMSAUTO), GARDS_B_RESOLUTION_PAIRS (RMSMAN), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_RESOLUTION_PAIRS (RMSAUTO), GARDS_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_RESOLUTION_PAIRS_ORIG (RMSMAN)			
Description	Uncertainty of resolution.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	keV		g8.5	Y
Range	0.0 < res_error			

5.2.632. RESULT

Tables	GARDS_SAMPLE_FLAGS (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSMAN)			
Description	Indicator of whether or not the test passed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.633. RESULT_COMPARISON

Tables	GARDS_RLR_CONCLUSIONS (RMSAUTO)			
Description	Comparison of IDC and laboratory results			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.634. REVID

Tables	GARDS_FPE (RMSAUTO), GARDS_FPE (RMSMAN)			
Description	Revision number			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.635. REVIEW_CAT

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Review category			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.636. REVIEW_DATE

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Date sample was last reviewed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.637. REVIEW_TIME

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Amount of time to review sample (minutes) (no longer automatically updated)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.638. REVISION

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Revision identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.639. RIGHT_FWHM_LIM

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Right ROI FWHM limit Canberra Parameter: CAM_F_PRFWHMPKRIGHT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.640. RIGHT_FWHM_LIM

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Right ROI FWHM limit Canberra param: CAM_F_PRFWHMPKRIGHT			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.641. RLR_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Unique RLR identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.642. RLR_ID

Tables	GARDS_RLR_CONCLUSIONS (RMSAUTO), GARDS_RLR_OBJECTIVE (RMSAUTO), GARDS_RLR_RATIOS (RMSAUTO), GARDS_RLR_RESULTS (RMSAUTO), GARDS_RLR_SSREB (RMSAUTO)			
Description	Unique RLR identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.643. RMS_ID

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Internal identifier for message; either sample_id for PHDs, the rlr_id for RLRs, or the soh_id for SOHs			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.644. RMS_ID

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Sequence number of associated data type (e.g., RMSSOH, SAMPLEPHD, etc.). If SAMPLEPHD, the sequence refers to a sample_id; if RMSSOH, the RMS ID refers to an soh_id.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.645. ROI

Tables	GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN)			
Description	Region of interest			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	N
Range				

5.2.646. ROI

Tables	GARDS_BG_EFFICIENCY_PAIRS (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSMAN), GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN), GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN), GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN), GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN), GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_XE_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	ROI identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.647. ROI

Tables	GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN)			
Description	Region of interest			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.648. ROI

Tables	GARDS_ROI_LIB (RMSMAN)			
Description	Unique ROI identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.649. ROLE_ID

Tables	GARDS_ROLES (RMSMAN)			
Description	Unique role identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.650. ROLE_ID

Tables	GARDS_DIST_SAMPLE_QUEUE (RMSMAN), GARDS_ROLES_PERMISSIONS (RMSMAN), GARDS_USERS_ROLES (RMSMAN)			
Description	Role identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.651. ROLE_NAME

Tables	GARDS_ROLES (RMSMAN)			
Description	Role identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	N
Range				

5.2.652. ROW_INDEX

Tables	GARDS_ENERGY_CAL_COV (RMSAUTO)			
Description	Row index for energy calibration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range				

5.2.653. ROW_INDEX

Tables	GARDS_RESOLUTION_CAL_COV (RMSAUTO), GARDS_RESOLUTION_CAL_COV (RMSMAN)			
Description	Row index for resolution calibration			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(10,0)			i10	Y
Range				

5.2.654. RQST_ID

Tables	GARDS_QUERY_RESULTS (RMSAUTO), GARDS_QUERY_RESULTS (RMSMAN)			
Description	Unique query identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.655. RQST_STRING

Tables	GARDS_QUERY_RESULTS (RMSAUTO), GARDS_QUERY_RESULTS (RMSMAN)			
Description	Unique query identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(100)			a100	Y
Range	rqst_id > 0			

5.2.656. SAMPLE_ACT

Tables	GARDS_XE_RESULTS (RMSMAN)			
Description	Spectrum activity without decay			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.657. SAMPLE_DIAMETER

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Diameter of gas chamber (cm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	cm		f5.1	Y
Range				

5.2.658. SAMPLE_HEIGHT

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Diameter of gas chamber.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	cm		f5.1	Y
Range				

5.2.659. SAMPLE_ID

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_BG_DETECTOR_STD_SPECTRA (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSAUTO), GARDS_BG_ENERGY_CAL (RMSMAN), GARDS_BG_ISOTOPE_CONCS (RMSAUTO), GARDS_BG_ISOTOPE_CONCS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN), GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN), GARDS_BG_ROI_COUNTS (RMSAUTO), GARDS_BG_ROI_COUNTS (RMSMAN), GARDS_BG_STD_SPECTRA (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN), GARDS_DIST_SAMPLE_QUEUE (RMSMAN), GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_SAINT_PROCESS_PARAMS (RMSAUTO), GARDS_SAINT_PROCESS_PARAMS (RMSMAN), GARDS_SAMPLE_AUX (RMSAUTO), GARDS_SAMPLE_CAT (RMSMAN), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SAMPLE_DESCRIPTION (RMSAUTO), GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN), GARDS_XE_RESULTS (RMSMAN)			
Description	Unique sample identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.660. SAMPLE_ID

Tables	GARDS_STATUS_HISTORY (RMSMAN)			
Description	Sample identifier (relates to gards_sample_data.sample_id)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.661. SAMPLE_ID

Tables	GARDS_QAT_NOTIFY (RMSMAN), GARDS_SAMPLE_CERT_LINES (RMSAUTO)			
Description	Sample identifier (relates to gards_sample_data.sample_id)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.662. SAMPLE_ID

Tables	GARDS_BG_EFFICIENCY_PAIRS (RMSAUTO), GARDS_BG_EFFICIENCY_PAIRS (RMSMAN), GARDS_BG_PROC_PARAMS_ROI (RMSAUTO), GARDS_BG_PROC_PARAMS_ROI (RMSMAN), GARDS_BG_ROI_CONCS (RMSAUTO), GARDS_BG_ROI_CONCS (RMSMAN), GARDS_B_ENERGY_PAIRS (RMSAUTO), GARDS_B_ENERGY_PAIRS (RMSMAN), GARDS_B_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_B_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_B_RESOLUTION_PAIRS (RMSAUTO), GARDS_B_RESOLUTION_PAIRS (RMSMAN), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_B_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_COMMENTS (RMSAUTO), GARDS_COMMENTS (RMSMAN), GARDS_EFFICIENCY_CAL (RMSAUTO), GARDS_EFFICIENCY_CAL (RMSMAN), GARDS_EFFICIENCY_PAIRS (RMSAUTO), GARDS_EFFICIENCY_PAIRS (RMSMAN), GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN), GARDS_ENERGY_PAIRS (RMSAUTO), GARDS_ENERGY_PAIRS (RMSMAN), GARDS_ENERGY_PAIRS_ORIG (RMSAUTO), GARDS_ENERGY_PAIRS_ORIG (RMSMAN), GARDS_ENVIRONMENT (RMSAUTO), GARDS_FPE (RMSAUTO), GARDS_FPE (RMSMAN), GARDS_HISTOGRAM (RMSAUTO), GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN), GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN), GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN), GARDS_QCHISTORY (RMSAUTO), GARDS_QCHISTORY (RMSMAN), GARDS_RESOLUTION_CAL (RMSAUTO), GARDS_RESOLUTION_CAL (RMSMAN), GARDS_RESOLUTION_PAIRS (RMSAUTO), GARDS_RESOLUTION_PAIRS (RMSMAN), GARDS_RESOLUTION_PAIRS_ORIG (RMSAUTO), GARDS_RESOLUTION_PAIRS_ORIG (RMSMAN), GARDS_RLR_SSREB (RMSAUTO), GARDS_ROI_CHANNELS (RMSAUTO), GARDS_ROI_CHANNELS (RMSMAN), GARDS_ROI_CONCS (RMSAUTO), GARDS_ROI_CONCS (RMSMAN), GARDS_ROI_COUNTS (RMSAUTO), GARDS_ROI_COUNTS (RMSMAN), GARDS_ROI_LIMITS (RMSAUTO), GARDS_ROI_LIMITS (RMSMAN), GARDS_SAMPLE_CERT (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSMAN), GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN), GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN), GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_SAMPLE_XE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_XE_PROC_PARAMS (RMSMAN), GARDS_SPECTRUM (RMSAUTO), GARDS_TOTAL_EFFIC (RMSAUTO), GARDS_TOTAL_EFFIC (RMSMAN), GARDS_USER_COMMENTS (RMSAUTO), GARDS_USER_COMMENTS (RMSMAN)
Description	Unique sample identifier

Storage type	Unit	NA value	External	Nullable
number			i10	Y
Range				

5.2.663. SAMPLE_ID

Tables	GARDS_ENERGY_CAL_COV (RMSAUTO), GARDS_QC_RESULTS (RMSAUTO), GARDS_QC_RESULTS (RMSMAN), GARDS_RESOLUTION_CAL_COV (RMSAUTO), GARDS_RESOLUTION_CAL_COV (RMSMAN)			
Description	Unique sample identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(22,0)			i10	Y
Range				

5.2.664. SAMPLE_ID

Tables	GARDS_RESOLUTION_CAL_ORIG (RMSAUTO), GARDS_RESOLUTION_CAL_ORIG (RMSMAN)			
Description	Unique sample identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number(8,0)			i8	Y
Range				

5.2.665. SAMPLE_REF_ID

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Sample identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range	sample_id > 0			

5.2.666. SAMPLE_REF_ID

Tables	GARDS_PROCESSING_ERRORS (RMSMAN)			
Description	Sample reference identification			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range				

5.2.667. SAMPLE_TYPE

Tables	GARDS_BASELINE (RMSMAN)			
Description	Sample type (P, G)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	N
Range	sample_type IN {P, G}			

5.2.668. SAMPLE_TYPE

Tables	GARDS_RELEVANT_NUCLIDES (RMSMAN), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SPECTRUM (RMSAUTO)			
Description	Sample type (P, G, or B)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	sample_type IN {P, G, B}			

5.2.669. SAMPLE_TYPE

Tables	GARDS_MDAS2REPORT (RMSMAN)			
Description	Sample type (P, G, or B)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a1	Y
Range	sample_type IN {P, G, B}			

5.2.670. SAMPLE_TYPE

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Type of sample Canberra Parameter: CAM_T_SSPRSTR1			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a2	Y
Range				

5.2.671. SCORE

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN), GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Score used when comparing this ECR to other ECRs, a measure of both the ape and determinant			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.672. SDMULT

Tables	GARDS_QCPARAMS (RMSMAN)			
Description	Location test standard deviation multiplier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.673. SENSOR_NAME

Tables	GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	Unique sensor name to distinguish between sensors of the same type			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)			a20	Y
Range				

5.2.674. SENSOR_TYPE

Tables	GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	Unique sensor name to distinguish between sensors of the same type.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)			a20	Y
Range	sensor_type IN { TEMP, PRESSURE, PROCESSFLOW, VOLTAGE, COUNTRATES, DEWPOINT, CO2VOLUME }			

5.2.675. SESSION_ID

Tables	GARDS_TRENDVUE (RMSAUTO), GARDS_TRENDVUE (RMSMAN)			
Description	Unique session identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.676. SITE_DET_CODE

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN)			
Description	Station code concatenated with detector code			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(15)			a15	Y
Range				

5.2.677. SLOPE

Tables	GARDS_BG_QC_RESULT (RMSAUTO), GARDS_BG_QC_RESULT (RMSMAN)			
Description	Noise slope in QC spectrum			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.678. SOH_CHAR_ID

Tables	GARDS_SOH_CHAR_DATA (RMSAUTO)			
Description	Unique state of health character data identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.679. SOH_ID

Tables	GARDS_SOH_HEADER (RMSAUTO)			
Description	State of health identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.680. SOH_NUM_ID

Tables	GARDS_SOH_NUM_DATA (RMSAUTO)			
Description	State of health identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.681. SOH_SENSOR_ID

Tables	GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	State of health sensor id			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.682. SPECIAL_INSTRUCTIONS

Tables	GARDS_RLR_OBJECTIVE (RMSAUTO)			
Description	Special instructions			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.683. SPECTRAL_QUALIFIER

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_REFLINE_MASTER (RMSMAN), GARDS_XE_REFLINE_MASTER (RMSMAN)			
Description	Indicator of full or preliminary sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(5)			a5	Y
Range				

5.2.684. SPECTRAL_QUALIFIER

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_UPDATE_REFLINES (RMSMAN)			
Description	Time for which the sample was exposed: FULL or PREL (preliminary)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(5)			a5	Y
Range				

5.2.685. SPLIT_SAMPLE_REF_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Split sample reference identification			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a16	Y
Range				

5.2.686. SPLIT_STATION

Tables	GARDS_STATIONS (RMSMAN)			
Description	Flag indicating whether or not station is split			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.687. SQUANT_ERR

Tables	GARDS_PROC_PARAMS_TEMPLATE (RMSMAN)			
Description	Time for which sample was exposed: FULL or PREL (preliminary).			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.688. SQUANT_ERR

Tables	GARDS_SAMPLE_PROC_PARAMS (RMSAUTO), GARDS_SAMPLE_PROC_PARAMS (RMSMAN)			
Description	Uncertainty of sample quantity (m3) Canberra param: CAM_F_SQUANTERR (No longer used in processing)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	m3		g8.5	Y
Range				

5.2.689. START_TIME

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Start time of measurement			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.690. START_TIME

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Start time of interval			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)			g8.5	Y
Range				

5.2.691. STATE

Tables	GARDS_QCHISTORY (RMSAUTO), GARDS_QCHISTORY (RMSMAN)			
Description	Text results of quality control hypothesis tests			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(128)			a128	Y
Range				

5.2.692. STATE

Tables	GARDS_INTERVAL (RMSAUTO)			
Description	Date of data sampling commencement.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	Y
Range				

5.2.693. STATE

Tables	RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Processing state. The processing state of the interval with with regard to data migration and purging.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)		- (hyphen)	a16	Y
Range	state in {failed, running, done, purged, not_verified, verified}			

5.2.694. STATION_CODE

Tables	GARDS_ALERTS (RMSAUTO)			
Description	Station code parsed from import message			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(5)			a5	Y
Range				

5.2.695. STATION_CODE

Tables	GARDS_PROCESSING_ERRORS (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Station code parsed from import message			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(5)			a5	Y
Range				

5.2.696. STATION_ID

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LINES_IDED (RMSAUTO), GARDS_NUCL_LINES_IDED (RMSMAN), GARDS_NUCL_LINES_IDED_ORIG (RMSAUTO), GARDS_NUCL_LINES_IDED_ORIG (RMSMAN), GARDS_STADET (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Station identifier Canberra Parameter: CAM_L_SSPI5			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.697. STATION_ID

Tables	GARDS_RLR (RMSAUTO)			
Description	Station identifier Canberra Parameter: CAM_L_SSPI5			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			a5	Y
Range				

5.2.698. STATION_ID

Tables	GARDS_ALERTS (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_DATA_LOG (RMSAUTO), GARDS_MET_DATA (RMSAUTO), GARDS_PROC_PARAMS_TEMPLATE (RMSMAN), GARDS_QCHISTORY (RMSAUTO), GARDS_QCHISTORY (RMSMAN), GARDS_QCTARGETS (RMSMAN), GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SOH_CHAR_DATA (RMSAUTO), GARDS_SOH_HEADER (RMSAUTO), GARDS_SOH_NUM_DATA (RMSAUTO), GARDS_SOH_SENSOR_DATA (RMSAUTO), GARDS_STATIONS_SCHEDULE (RMSMAN), GARDS_STATION_ASSIGNMENTS (RMSMAN), GARDS_UPDATE_REFLINES (RMSMAN)			
Description	Station identifier Canberra Parameter: CAM_L_SSPI5			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.699. STATION_LIST

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Comma-separated list of stations			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(1024)			a128	Y
Range				

5.2.700. STATUS

Tables	GARDS_SAMPLE_STATUS (RMSAUTO), GARDS_SAMPLE_STATUS (RMSMAN)			
Description	Current processing status of sample. Some possible values are: A- analyzed, P- processed, R- reviewed, U- unprocessed, V- viewed, F xxx, D xxx, B xxx, Z - xxx			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range	status IN {A, P, R, U, V, F, D, B, Z}			

5.2.701. STATUS

Tables	GARDS_DATA_LOG (RMSAUTO)			
Description	Status			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(1)			a1	Y
Range				

5.2.702. STATUS

Tables	GARDS_DETECTORS (RMSMAN)			
Description	Status of detector: if Y, then data from this detector are automatically processed; if N, then they are not processed automatically.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a2	Y
Range	status IN {N, Y}			

5.2.703. STATUS

Tables	GARDS_STATIONS (RMSMAN)			
Description	Status of station: if NULL, then station is fully operational, otherwise status is I.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2)			a2	Y
Range	status IN {I}			

5.2.704. STATUS_LIST

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Comma-separated list of statuses			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(128)			a128	Y
Range				

5.2.705. STD_SPECTRA_ID

Tables	GARDS_BG_STD_SPECTRA_RESULT (RMSAUTO), GARDS_BG_STD_SPECTRA_RESULT (RMSMAN)			
Description	Unique identifier for the standard spectra. This is a sample id for the std spectra)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.706. SUBID

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Not used			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.707. SUM_CORR

Tables	GARDS_IRF (RMSMAN)			
Description	Sum of the correlation			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number		NOT ALLOWED	f10.8	Y
Range				

5.2.708. T_TIME

Tables	GARDS_QAT_CONFIG (RMSMAN)			
Description	Number of minutes after gards_sample_status.entry_date that rms_QAT_auto waits before releasing a sample			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	Minutes		g8.5	Y
Range				

5.2.709. TELEPHONE

Tables	GARDS_POC (RMSMAN)			
Description	Telephone number of point of contact			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(20)			a20	Y
Range				

5.2.710. TEMPERATURE

Tables	GARDS_ENVIRONMENT (RMSAUTO)			
Description	Outside temperature (degrees Celsius)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f5.1	Y
Range				

5.2.711. TEMPORAL_UNIT

Tables	GARDS_STATIONS_SCHEDULE (RMSMAN)			
Description	Units for schedule period - currently only the value DAYS is supported			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
char(5)	days		a5	Y
Range	temporal_unit IN {DAYS}			

5.2.712. TEMPORAL_VALUE

Tables	GARDS_STATIONS_SCHEDULE (RMSMAN)			
Description	Units for schedule period - currently only the value DAYS is supported.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	days		i10	Y
Range				

5.2.713. TEST

Tables	GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN)			
Description	Calculated result of the test; this value is compared to the threshold value (examples are <, = , >, >=)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(8)			a8	Y
Range				

5.2.714. TEST_CODE

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Unique test code identifier string			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(24)			a24	N
Range				

5.2.715. TEST_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Test completion date at lab			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.716. TEST_ID

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Unique identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.717. TEST_NAME

Tables	GARDS_QC_RESULTS (RMSAUTO), GARDS_QC_RESULTS (RMSMAN)			
Description	Quality control test name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range				

5.2.718. TEST_NAME

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Test name label for display			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(48)			a48	N
Range				

5.2.719. TEST_TYPE

Tables	GARDS_RLR (RMSAUTO)			
Description	Type of test performed			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a40	Y
Range				

5.2.720. TESTS_AUTHORIZED

Tables	GARDS_RLR_OBJECTIVE (RMSAUTO)			
Description	Tests authorized			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(2048)			a2048	Y
Range				

5.2.721. THRESHOLD

Tables	GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN)			
Description	Value against which the results in the test column are compared			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.722. TIME

Tables	RMSAUTO_INTERVAL (RMSMIGRATE), RMSMAN_INTERVAL (RMSMIGRATE)			
Description	Epoch time, given as seconds since midnight, January 1, 1970, and stored in a double-precision floating number. time refers to the table in which it is found; for example, in arrival it is the arrival time, in origin it is the origin time, in wfdisc it is the start time of data, and in sensor it is the start time for which measurements are valid. Where the date of historical events is known, time is set to the start time of that date. Where the date of contemporary arrival measurements is known but no time is given, then time is set to the NA Value. Times are given to, at most, one millisecond accuracy. Where the date is unknown, or prior to February 10, 1653, time is set to the NA Value.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(53)	seconds	-9999999999.999	f17.5	Y
Range	any valid epoch time			

5.2.723. TOTAL_RAINFALL

Tables	GARDS_MET_DATA (RMSAUTO)			
Description	Total rainfall (mm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	mm		f5.1	Y
Range				

5.2.724. TRANSMIT_DATE

Tables	GARDS_RLR (RMSAUTO)			
Description	Transmit date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.725. TRANSMIT_DTG

Tables	GARDS_SAMPLE_DATA (RMSAUTO), GARDS_SAMPLE_DATA (RMSMAN), GARDS_SOH_HEADER (RMSAUTO)			
Description	Transmit date time group			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.726. TSTAT

Tables	GARDS_ENERGY_CAL_ORIG (RMSAUTO), GARDS_ENERGY_CAL_ORIG (RMSMAN)			
Description	Percentage point of the t-statistic for Type I error with a probability set to 99%			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	percent		f8.3	Y
Range	0 < tstat <= 100			

5.2.727. TSTAT

Tables	GARDS_ENERGY_CAL (RMSAUTO), GARDS_ENERGY_CAL (RMSMAN)			
Description	Percentage point of the t-statistic for Type I error with a probability set to 99%			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.728. TSTAT

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Value of a variable used in bounds estimation (EWMA algorithm)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.729. TYPE

Tables	GARDS_CODES (RMSMAN)			
Description	Category of code.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(15)			a15	Y
Range				

5.2.730. TYPE

Tables	GARDS_MDAS2REPORT (RMSMAN)			
Description	Nuclide type. Choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P) or NATURAL.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	Y
Range	type IN {ACTIVATION, COSMIC, FISSION(G), FISSION(P), NATURAL}			

5.2.731. TYPE

Tables	GARDS_NUCL_IDED (RMSAUTO), GARDS_NUCL_IDED (RMSMAN), GARDS_NUCL_IDED_ORIG (RMSAUTO), GARDS_NUCL_IDED_ORIG (RMSMAN), GARDS_NUCL_LIB (RMSMAN), GARDS_RELEVANT_NUCLIDES (RMSMAN), GARDS_XE_NUCL_LIB (RMSMAN)			
Description	Nuclide type. Choices are: ACTIVATION, COSMIC, FISSION(G), FISSION(P), or NATURAL.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	Y
Range	type IN {ACTIVATION, COSMIC, FISSION(G), FISSION(P), NATURAL}			

5.2.732. TYPE

Tables	GARDS_RECEIPT_LOG (RMSAUTO)			
Description	Type of data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(5)			a5	N
Range				

5.2.733. TYPE

Tables	GARDS_DETECTORS (RMSMAN), GARDS_STATIONS (RMSMAN)			
Description	Brief description of detector or station.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(6)			a6	Y
Range	ASCII characters			

5.2.734. TYPEID

Tables	GARDS_PRODUCT_TYPE (RMSMAN)			
Description	Unique product type identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.735. TYPEID

Tables	GARDS_PRODUCT (RMSAUTO), GARDS_PRODUCT (RMSMAN)			
Description	Unique type identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.736. UNIT

Tables	GARDS_SOH_CODE (RMSMAN)			
Description	Unit in which the parameter is stored			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(32)			a32	Y
Range				

5.2.737. UNITS

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Unit values for the test bounds			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	Y
Range				

5.2.738. UNITS

Tables	GARDS_FLAGS (RMSAUTO), GARDS_FLAGS (RMSMAN)			
Description	Units of the event screening test			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(16)			a16	Y
Range				

5.2.739. UPPER_BOUND

Tables	GARDS_AUTO_SAMPLE_CAT (RMSAUTO), GARDS_CAT_TEMPLATE (RMSMAN), GARDS_SAMPLE_CAT (RMSMAN)			
Description	Upper limit of the amount of a nuclide that can be acceptably found			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.740. UPPER_LIMIT

Tables	GARDS_CAT_CRITERIA_TESTS (RMSMAN)			
Description	Upper limit bound of the test			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.741. UPPER_ROI_NUMBER

Tables	GARDS_SAMPLE_RATIOS (RMSAUTO), GARDS_SAMPLE_RATIOS (RMSMAN)			
Description	ROI number associated with the upper ROI			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.742. USE_MULT

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	0/1 flag for use of multiplets in ECR updating (typically 1)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.743. USE_WEIGHT

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN), GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	0/1 flag for use of weights in ECR updating (typically 1)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range				

5.2.744. USER_ID

Tables	GARDS_USERS (RMSMAN)			
Description	Unique user identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	N
Range				

5.2.745. USER_ID

Tables	GARDS_QAT_QUERY_FILTER (RMSMAN)			
Description	Foreign key to gards_users			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.746. USER_ID

Tables	GARDS_DIST_SAMPLE_QUEUE (RMSMAN), GARDS_STATION_ASSIGNMENTS (RMSMAN), GARDS_USERS_ROLES (RMSMAN)			
Description	User identifier			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.747. USER_NAME

Tables	GARDS_USERS (RMSMAN)			
Description	User identifier.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	N
Range				

5.2.748. USER_NAME

Tables	GARDS_STATUS_HISTORY (RMSMAN)			
Description	User name			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.749. VALUE

Tables	GARDS_SAMPLE_FLAGS (RMSAUTO), GARDS_SAMPLE_FLAGS (RMSMAN)			
Description	Threshold value for the test.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.750. VALUE

Tables	GARDS_SOH_NUM_DATA (RMSAUTO)			
Description	Value of the specified SOH parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.3	Y
Range				

5.2.751. VALUE

Tables	GARDS_SOH_SENSOR_DATA (RMSAUTO)			
Description	Value of the specified SOH parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			f8.5	Y
Range				

5.2.752. VALUE

Tables	GARDS_USERENV (RMSMAN)			
Description	Variable value			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	N
Range				

5.2.753. VALUE

Tables	GARDS_SAINT_DEFAULT_PARAMS (RMSAUTO), GARDS_SAINT_DEFAULT_PARAMS (RMSMAN)			
Description	autoSaint default processing values			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.754. VALUE

Tables	GARDS_SAINT_PROCESS_PARAMS (RMSAUTO), GARDS_SAINT_PROCESS_PARAMS (RMSMAN)			
Description	autoSaint processing values			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(256)			a256	Y
Range				

5.2.755. VALUE

Tables	GARDS_SOH_CHAR_DATA (RMSAUTO)			
Description	Value of the specified SOH parameter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
varchar2(30)			a30	Y
Range				

5.2.756. WIDTH

Tables	GARDS_PEAKS (RMSAUTO), GARDS_PEAKS (RMSMAN)			
Description	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.757. WIDTH

Tables	GARDS_PEAKS_ORIG (RMSAUTO), GARDS_PEAKS_ORIG (RMSMAN)			
Description	Width of peak (channels) Canberra Parameter: CAM_L_PSWIDTH			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range				

5.2.758. WIDTH_ADJ

Tables	GARDS_QCPARAMS (RMSMAN)			
Description	Peak width standard deviation inflation factor			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.759. XE_COLLECT_YIELD

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Xe collection yield of the system (volume of stable Xe on detector/volume of stable Xe collected on first trap)			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.760. XE_COLLECT_YIELD_ERR

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Xe collection yield of the system; volume of stable Xe on detector/volume of stable Xe collected on first trap.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.761. XE_IN_AIR

Tables	GARDS_BG_CONFIG_PARAMS (RMSMAN), GARDS_BG_PROC_PARAMS (RMSAUTO), GARDS_BG_PROC_PARAMS (RMSMAN)			
Description	The amount of xenon in air			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
float(126)			g8.5	Y
Range				

5.2.762. XE_VOLUME

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Uncertainty of xe_collect_yield.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.763. XE_VOLUME_ERR

Tables	GARDS_SAMPLE_AUX (RMSAUTO)			
Description	Volume of stable Xe in gas cell counter.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number	cm3		g8.5	Y
Range				

5.2.764. XFORM

Tables	GARDS_CAT_TEMPLATE (RMSMAN)			
Description	Code for transform function applied to measurement data			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			g8.5	Y
Range				

5.2.765. ZERO_DATE

Tables	GARDS_RLR_RATIOS (RMSAUTO)			
Description	Zero date			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
date	Date	NOT ALLOWED	a21	Y
Range	any valid ORACLE date			

5.2.766. ZEROSHIFT

Tables	GARDS_SAMPLE_UPDATE_PARAMS (RMSAUTO), GARDS_SAMPLE_UPDATE_PARAMS (RMSMAN)			
Description	Change in channel number at 0 keV between one spectrum and the previous spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i1	Y
Range	zeroshift >= 0.0			

5.2.767. ZEROSHIFT

Tables	GARDS_UPDATE_PARAMS_TEMPLATE (RMSMAN)			
Description	Change in channel number at 0 keV between one spectrum and the previous spectrum.			
Storage type	**Unit**	**NA value**	**External**	**Nullable**
number			i10	Y
Range	zeroshift >= 0.0			

5.3. Radionuclide Trigger Descriptions

5.3.1. ALERTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ALERTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.2. ALERTS_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_ALERTS

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select alert_seq.nextval into new_id from dual;`
	`  :new.alert_id := new_id;`
	`end;`

5.3.3. AUTO_SAMPLE_CAT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_AUTO_SAMPLE_CAT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.4. AUX_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_AUX_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.5. AUX_LINES_LIB_B_I_U

Type:	BEFORE EACH ROW

Event:	INSERT OR UPDATE
Table:	GARDS_AUX_LINES_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.6. BASELINE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BASELINE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.7. BG_CONFIG_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_CONFIG_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.8. BG_DET_STD_SPECTRA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_DETECTOR_STD_SPECTRA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.9. BG_EFFICIENCY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_EFFICIENCY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.10. BG_EFFICIENCY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_EFFICIENCY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.11. BG_ENERGY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ENERGY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.12. BG_ENERGY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ENERGY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.13. BG_ISOTOPE_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ISOTOPE_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.14. BG_ISOTOPE_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ISOTOPE_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.15. BG_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.16. BG_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.17. BG_PROC_PARAMS_ROI_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_PROC_PARAMS_ROI

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.18. BG_PROC_PARAMS_ROI_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_PROC_PARAMS_ROI

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.19. BG_QC_RESULT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_QC_RESULT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.20. BG_QC_RESULT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_QC_RESULT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.21. BG_ROI_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ROI_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.22. BG_ROI_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ROI_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.23. BG_ROI_COUNTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ROI_COUNTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.24. BG_ROI_COUNTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_ROI_COUNTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.25. BG_STD_SPECTRA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_STD_SPECTRA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.26. BG_STD_SPECTRA_RESULT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_STD_SPECTRA_RESULT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.27. BG_STD_SPECTRA_RESULT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_BG_STD_SPECTRA_RESULT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.28. BG_STD_SPECTRA_RESULT_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_STD_SPECTRA_RESULT

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  INSERT into rmsman.gards_bg_std_spectra_result (`
	`  SAMPLE_ID ,`
	`  STD_SPECTRA_ID ,`
	`  GAMMA_COEFF1 ,`
	`  GAMMA_COEFF2 ,`
	`  GAMMA_COEFF3 ,`
	`  BETA_COEFF1 ,`
	`  BETA_COEFF2 ,`
	`  BETA_COEFF3 ,`
	`  ESTIMATE ,`
	`  ERROR`
	`  )`
	`  VALUES (`
	`  :new.SAMPLE_ID ,`

```
                :new.STD_SPECTRA_ID          ,
                :new.GAMMA_COEFF1            ,
                :new.GAMMA_COEFF2            ,
                :new.GAMMA_COEFF3            ,
                :new.BETA_COEFF1             ,
                :new.BETA_COEFF2             ,
                :new.BETA_COEFF3             ,
                :new.ESTIMATE                ,
                :new.ERROR
                );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_std_spectra_result set
                SAMPLE_ID = :new.SAMPLE_ID               ,
                STD_SPECTRA_ID = :new.STD_SPECTRA_ID     ,
                GAMMA_COEFF1 = :new.GAMMA_COEFF1         ,
                GAMMA_COEFF2 = :new.GAMMA_COEFF2         ,
                GAMMA_COEFF3 = :new.GAMMA_COEFF3         ,
                BETA_COEFF1 = :new.BETA_COEFF1           ,
                BETA_COEFF2 = :new.BETA_COEFF2           ,
                BETA_COEFF3 = :new.BETA_COEFF3           ,
                ESTIMATE = :new.ESTIMATE                 ,
                ERROR = :new.ERROR
        where sample_id = :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_std_spectra_result where
sample_id = :old.sample_id;
        END IF;
end;
```

5.3.29. B_ENERGY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_ENERGY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.30. B_ENERGY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_ENERGY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.31. B_ENERGY_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_ENERGY_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.32. B_ENERGY_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_ENERGY_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.33. B_RESOLUTION_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_RESOLUTION_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.34. B_RESOLUTION_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_RESOLUTION_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.35. B_RESOLUTION_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_B_RESOLUTION_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.36. B_RESOLUTION_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE

Table:	GARDS_B_RESOLUTION_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.37. CAT_CRITERIA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_CAT_CRITERIA_TESTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.38. CAT_TEMPLATE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_CAT_TEMPLATE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.39. CODES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_CODES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.40. COMMENTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_COMMENTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.41. COMMENTS_B_I_U

Type:	BEFORE EACH ROW

Event:	INSERT OR UPDATE
Table:	GARDS_COMMENTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.42. COMMENTS_DEFS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_COMMENTS_DEFS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.43. CSC_MODCOEFF_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_CSC_MODCOEFF_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.44. DATA_LOG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_DATA_LOG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.45. DBROLE_OWNER_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_DBROLE_OWNER

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.46. DEFAULT_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAINT_DEFAULT_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.47. DEFAULT_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAINT_DEFAULT_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.48. DETECTORS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_DETECTORS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.49. DIST_SAMPLE_QUEUE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_DIST_SAMPLE_QUEUE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.50. EFFICIENCY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_EFFICIENCY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.51. EFFICIENCY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_EFFICIENCY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.52. EFFICIENCY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_EFFICIENCY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.53. EFFICIENCY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_EFFICIENCY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.54. EFF_VGSL_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_EFFICIENCY_VGSL_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.55. ENERGY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.56. ENERGY_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.57. ENERGY_CAL_COV_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_CAL_COV

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.58. ENERGY_CAL_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_CAL_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.59. ENERGY_CAL_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_CAL_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.60. ENERGY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.61. ENERGY_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_PAIRS

Trigger body:	`begin`
	` :new.moddate := sysdate;`
	`end;`

5.3.62. ENERGY_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.63. ENERGY_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENERGY_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.64. ENVIRONMENT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ENVIRONMENT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.65. FLAGS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_FLAGS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.66. FLAGS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_FLAGS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.67. FPE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_FPE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.68. FPE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_FPE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.69. GARDS_BG_EFFIC_PRS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_EFFICIENCY_PAIRS

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  insert into rmsman.gards_bg_efficiency_pairs`
	`  (sample_id, bg_efficiency, bg_effic_error, roi)`
	`  values (:new.sample_id, :new.bg_efficiency,`
	`:new.bg_effic_error, :new.roi);`
	`  ELSIF UPDATING THEN`
	`  update rmsman.gards_bg_efficiency_pairs set`
	`  sample_id = :new.sample_id,`
	`  bg_efficiency = :new.bg_efficiency ,`
	`  bg_effic_error = :new.bg_effic_error ,`
	`  roi = :new.roi`
	`  where sample_id= :old.sample_id and roi = :old.roi;`
	`  ELSE`
	`  delete from rmsman.gards_bg_efficiency_pairs where`
	`  sample_id = :old.sample_id and roi = :old.roi;`

```
    END IF;
end;
```

5.3.70. GARDS_BG_ENERGY_CAL_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_ENERGY_CAL
Trigger body:	

```
begin
                IF INSERTING THEN
                        insert into rmsman.gards_bg_energy_cal
                        (
                    sample_id,
                         beta_coeff1,
                         beta_coeff2,
                         beta_coeff3,
                         gamma_coeff1,
                         gamma_coeff2,
                         gamma_coeff3
                         )
                        values (
                        :new.sample_id,
                        :new.beta_coeff1,
                        :new.beta_coeff2,
                        :new.beta_coeff3,
                        :new.gamma_coeff1,
                        :new.gamma_coeff2,
                        :new.gamma_coeff3
                        );
                ELSIF UPDATING THEN
                        update rmsman.gards_bg_energy_cal set
                        sample_id = :new.sample_id,
                        beta_coeff1 = :new.beta_coeff1,
                        beta_coeff2 = :new.beta_coeff2,
                        beta_coeff3 = :new.beta_coeff3,
                        gamma_coeff1 = :new.gamma_coeff1,
                        gamma_coeff2 = :new.gamma_coeff2,
                        gamma_coeff3 = :new.gamma_coeff3
                    where sample_id= :old.sample_id;
                ELSE
                        delete from rmsman.gards_bg_energy_cal where
                                sample_id = :old.sample_id;
                END IF;
end;
```

5.3.71. GARDS_BG_ISOTOPE_CONCS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_ISOTOPE_CONCS
Trigger body:	

```
begin
       IF INSERTING THEN
       INSERT into rmsman.gards_bg_isotope_concs (
              SAMPLE_ID     ,
              NUCLIDE_ID    ,
              CONC          ,
```

```
                CONC_ERR      ,
                MDC           ,
                NID_FLAG      ,
                LC            ,
                LD
                )
        VALUES (
                :new.SAMPLE_ID      ,
                :new.NUCLIDE_ID ,
                :new.CONC     ,
                :new.CONC_ERR       ,
                :new.MDC      ,
                :new.NID_FLAG       ,
                :new.LC             ,
                :new.LD
                );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_isotope_concs set
                SAMPLE_ID = :new.SAMPLE_ID       ,
                NUCLIDE_ID = :new.NUCLIDE_ID     ,
                CONC = :new.CONC          ,
                CONC_ERR = :new.CONC_ERR  ,
                MDC =  :new.MDC           ,
                NID_FLAG = :new.NID_FLAG  ,
                LC      = :new.LC         ,
                LD      = :new.LD
        where sample_id = :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_isotope_concs where sample_id
= :old.sample_id;
        END IF;
end;
```

5.3.72. GARDS_BG_PROC_PARAMS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_PROC_PARAMS
Trigger body:	

```
begin
        IF INSERTING THEN
        INSERT into rmsman.gards_bg_proc_params (
                SAMPLE_ID           ,
                LC_ABSCISSA         ,
                METHOD              ,
                DET_BKGND_USED            ,
                GAS_BKGND_USED            ,
                BETA_ECR_ORDER            ,
                GAMMA_ECR_ORDER           ,
                MAX_QC_DEV          ,
                QC_ID               ,
                XE_IN_AIR           ,
                DET_BKGND_ID        ,
                GAS_BKGND_ID        ,
                QC_B_THRESHOLD            ,
                BIN_ROWS                  ,
                BIN_MIN_COUNT             ,
                BIN_GAMMA_START         ,
                BIN_BETA_START          ,
                BIN_MAX_VECTOR_SIZE
                )
```

```
        VALUES (
                :new.SAMPLE_ID              ,
                :new.LC_ABSCISSA            ,
                :new.METHOD                 ,
                :new.DET_BKGND_USED         ,
                :new.GAS_BKGND_USED         ,
                :new.BETA_ECR_ORDER         ,
                :new.GAMMA_ECR_ORDER              ,
                :new.MAX_QC_DEV             ,
                :new.QC_ID                  ,
                :new.XE_IN_AIR              ,
                :new.DET_BKGND_ID           ,
                :new.GAS_BKGND_ID           ,
                :new.QC_B_THRESHOLD         ,
                :new.BIN_ROWS                     ,
                :new.BIN_MIN_COUNT                ,
                :new.BIN_GAMMA_START          ,
                :new.BIN_BETA_START           ,
                :new.BIN_MAX_VECTOR_SIZE
                );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_proc_params set
                SAMPLE_ID = :new.SAMPLE_ID        ,
                LC_ABSCISSA = :new.LC_ABSCISSA          ,
                METHOD = :new.METHOD                    ,
                DET_BKGND_USED = :new.DET_BKGND_USED          ,
                GAS_BKGND_USED = :new.GAS_BKGND_USED          ,
                BETA_ECR_ORDER = :new.BETA_ECR_ORDER          ,
                GAMMA_ECR_ORDER = :new.GAMMA_ECR_ORDER        ,
                MAX_QC_DEV = :new.MAX_QC_DEV            ,
                QC_ID = :new.QC_ID                ,
                XE_IN_AIR = :new.XE_IN_AIR        ,
                DET_BKGND_ID = :new.DET_BKGND_ID        ,
                GAS_BKGND_ID = :new.GAS_BKGND_ID        ,
                QC_B_THRESHOLD = :new.QC_B_THRESHOLD          ,
                BIN_ROWS = :new.BIN_ROWS                ,
                BIN_MIN_COUNT = :new.BIN_MIN_COUNT            ,
                BIN_GAMMA_START = :new.BIN_GAMMA_START         ,
                BIN_BETA_START = :new.BIN_BETA_START          ,
                BIN_MAX_VECTOR_SIZE = :new.BIN_MAX_VECTOR_SIZE
        where sample_id= :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_proc_params where sample_id =
:old.sample_id;
        END IF;
end;
```

5.3.73. GARDS_BG_PROC_PARAMS_ROI_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_PROC_PARAMS_ROI
Trigger body:	

```
begin
        IF INSERTING THEN
        INSERT into rmsman.gards_bg_proc_params_roi (
                SAMPLE_ID     ,
                ROI           ,
                HALFLIFE_SEC  ,
                ABUNDANCE     ,
                NUCLIDE_ID          )
```

```
        VALUES (
                :new.SAMPLE_ID      ,
                :new.ROI            ,
                :new.HALFLIFE_SEC   ,
                :new.ABUNDANCE      ,
                :new.NUCLIDE_ID           );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_proc_params_roi set
                SAMPLE_ID = :new.SAMPLE_ID,
                ROI = :new.ROI            ,
                HALFLIFE_SEC = :new.HALFLIFE_SEC ,
                ABUNDANCE = :new.ABUNDANCE,
                NUCLIDE_ID  = :new.NUCLIDE_ID
        where sample_id= :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_proc_params_roi where
sample_id = :old.sample_id;
        END IF;
end;
```

5.3.74. GARDS_BG_QC_RESULT_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_QC_RESULT
Trigger body:	

```
begin
        IF INSERTING THEN
        INSERT into rmsman.gards_bg_qc_result (
                SAMPLE_ID      ,
                AMPLITUDE      ,
                FWHM           ,
                CENTROID       ,
                OFFSET         ,
                SLOPE
                )
        VALUES (
                :new.SAMPLE_ID      ,
                :new.AMPLITUDE      ,
                :new.FWHM           ,
                :new.CENTROID       ,
                :new.OFFSET         ,
                :new.SLOPE
                );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_qc_result set
                SAMPLE_ID = :new.SAMPLE_ID      ,
                AMPLITUDE = :new.AMPLITUDE      ,
                FWHM = :new.FWHM           ,
                CENTROID = :new.CENTROID       ,
                OFFSET = :new.OFFSET         ,
                SLOPE = :new.SLOPE
        where sample_id = :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_qc_result where sample_id
= :old.sample_id;
        END IF;
end;
```

5.3.75. GARDS_BG_ROI_CONCS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_ROI_CONCS
Trigger body:	

```
begin
	IF INSERTING THEN
	INSERT into rmsman.gards_bg_roi_concs (
		SAMPLE_ID	,
		ROI		,
		CONC		,
		CONC_ERR	,
		MDC		,
		NID_FLAG	,
		LC		,
		LD
		)
	VALUES (
		:new.SAMPLE_ID	,
		:new.ROI	,
		:new.CONC	,
		:new.CONC_ERR	,
		:new.MDC	,
		:new.NID_FLAG	,
		:new.LC		,
		:new.LD
		);
	ELSIF UPDATING THEN
	UPDATE rmsman.gards_bg_roi_concs set
		SAMPLE_ID = :new.SAMPLE_ID	,
		ROI = :new.ROI		,
		CONC = :new.CONC	,
		CONC_ERR = :new.CONC_ERR	,
		MDC = :new.MDC		,
		NID_FLAG = :new.NID_FLAG	,
		LC = :new.LC		,
		LD = :new.LD
	where sample_id= :old.sample_id;
	ELSE
		delete from rmsman.gards_bg_roi_concs where sample_id
= :old.sample_id;
	END IF;
end;
```

5.3.76. GARDS_BG_ROI_COUNTS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_BG_ROI_COUNTS
Trigger body:	

```
begin
	IF INSERTING THEN
	INSERT into rmsman.gards_bg_roi_counts (
		SAMPLE_ID	,
		ROI		,
		GROSS		,
		GROSS_ERR	,
```

```
                GAS_BKGND_GROSS            ,
                GAS_BKGND_COUNT            ,
                GAS_BKGND_COUNT_ERR              ,
                DET_BKGND_COUNT            ,
                DET_BKGND_COUNT_ERR              ,
                NET_COUNT                  ,
                NET_COUNT_ERR                    ,
                CRITICAL_LEV_SAMP          ,
                CRITICAL_LEV_GAS           )
        VALUES (
                :new.SAMPLE_ID                   ,
                :new.ROI                   ,
                :new.GROSS                 ,
                :new.GROSS_ERR                   ,
                :new.GAS_BKGND_GROSS             ,
                :new.GAS_BKGND_COUNT             ,
                :new.GAS_BKGND_COUNT_ERR   ,
                :new.DET_BKGND_COUNT             ,
                :new.DET_BKGND_COUNT_ERR   ,
                :new.NET_COUNT                   ,
                :new.NET_COUNT_ERR         ,
                :new.CRITICAL_LEV_SAMP           ,
                :new.CRITICAL_LEV_GAS            );
        ELSIF UPDATING THEN
        UPDATE rmsman.gards_bg_roi_counts set
                SAMPLE_ID = :new.SAMPLE_ID                    ,
                ROI      = :new.ROI                ,
                GROSS = :new.GROSS                 ,
                GROSS_ERR = :new.GROSS_ERR                    ,
                GAS_BKGND_GROSS = :new.GAS_BKGND_GROSS        ,
                GAS_BKGND_COUNT = :new.GAS_BKGND_COUNT        ,
                GAS_BKGND_COUNT_ERR = :new.GAS_BKGND_COUNT_ERR       ,
                DET_BKGND_COUNT = :new.DET_BKGND_COUNT        ,
                DET_BKGND_COUNT_ERR = :new.DET_BKGND_COUNT_ERR       ,
                NET_COUNT = :new.NET_COUNT                    ,
                NET_COUNT_ERR = :new.NET_COUNT_ERR            ,
                CRITICAL_LEV_SAMP = :new.CRITICAL_LEV_SAMP           ,
                CRITICAL_LEV_GAS = :new.CRITICAL_LEV_GAS
        where sample_id= :old.sample_id;
        ELSE
                delete from rmsman.gards_bg_roi_counts where sample_id
= :old.sample_id;
        END IF;
end;
```

5.3.77. GARDS_B_ENRGY_PRS_INSERT

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_B_ENERGY_PAIRS
Trigger body:	

```
begin
    IF INSERTING THEN
      insert into rmsman.gards_b_energy_pairs
        (sample_id, decay_mode, cal_energy, cal_error, channel)
      values (:new.sample_id, :new.decay_mode, :new.cal_energy,
:new.cal_error, :new.channel);
    ELSIF UPDATING THEN
      update rmsman.gards_b_energy_pairs set
        sample_id = :new.sample_id,
        decay_mode = :new.decay_mode ,
```

```
        cal_energy = :new.cal_energy ,
        cal_error = :new.cal_error ,
        channel = :new.channel
      where sample_id= :old.sample_id and cal_energy =
:old.cal_energy;
    ELSE
      delete from rmsman.gards_b_energy_pairs where
        sample_id = :old.sample_id and cal_energy = :old.cal_energy;
    END IF;
end;
```

5.3.78. GARDS_B_ENRGY_PRS_ORG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_B_ENERGY_PAIRS_ORIG
Trigger body:	

```
begin
    IF INSERTING THEN
        insert into rmsman.gards_b_energy_pairs_orig
          (sample_id, decay_mode, cal_energy, cal_error, channel)
        values (:new.sample_id, :new.decay_mode, :new.cal_energy,
:new.cal_error, :new.channel);
    ELSIF UPDATING THEN
        update rmsman.gards_b_energy_pairs_orig set
          sample_id = :new.sample_id,
          decay_mode = :new.decay_mode ,
          cal_energy = :new.cal_energy ,
          cal_error = :new.cal_error ,
          channel = :new.channel
        where sample_id= :old.sample_id and cal_energy =
:old.cal_energy;
    ELSE
        delete from rmsman.gards_b_energy_pairs_orig where
          sample_id = :old.sample_id and cal_energy = :old.cal_energy;
    END IF;
end;
```

5.3.79. GARDS_B_RES_PAIRS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_B_RESOLUTION_PAIRS
Trigger body:	

```
begin
    IF INSERTING THEN
      insert into rmsman.gards_b_resolution_pairs
        (sample_id, resolution, res_energy, res_error)
      values (:new.sample_id, :new.resolution, :new.res_energy,
:new.res_error);
    ELSIF UPDATING THEN
      update rmsman.gards_b_resolution_pairs set
        sample_id = :new.sample_id,
        resolution = :new.resolution ,
        res_energy = :new.res_energy ,
        res_error = :new.res_error
      where sample_id= :old.sample_id and res_energy =
:old.res_energy;
```

```
    ELSE
       delete from rmsman.gards_b_resolution_pairs where
        sample_id = :old.sample_id and res_energy = :old.res_energy;
    END IF;
end;
```

5.3.80. GARDS_B_RES_PRS_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_B_RESOLUTION_PAIRS_ORIG
Trigger body:	

```
begin
   IF INSERTING THEN
      insert into rmsman.gards_b_resolution_pairs_orig
        (sample_id, resolution, res_energy, res_error)
      values (:new.sample_id, :new.resolution, :new.res_energy,
:new.res_error);
   ELSIF UPDATING THEN
      update rmsman.gards_b_resolution_pairs_orig set
        sample_id = :new.sample_id,
        resolution = :new.resolution ,
        res_energy = :new.res_energy ,
        res_error = :new.res_error
      where sample_id= :old.sample_id and res_energy =
:old.res_energy;
   ELSE
      delete from rmsman.gards_b_resolution_pairs_orig where
        sample_id = :old.sample_id and res_energy = :old.res_energy;
   END IF;
end;
```

5.3.81. GARDS_COMMENTS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_COMMENTS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_comments (
                sample_id,
                peak_id,
                nucl_name,
                comment_id,
                analyst,
                dtg,
                comment_type
              )
              values (
                :new.sample_id,
                :new.peak_id,
                :new.nucl_name,
                :new.comment_id,
                :new.analyst,
                :new.dtg,
                :new.comment_type
              );
```

```
        ELSIF UPDATING THEN
                update rmsman.gards_comments set
                  sample_id = :new.sample_id,
                  peak_id = :new.peak_id,
                  nucl_name = :new.nucl_name,
                  comment_id = :new.comment_id,
                  analyst = :new.analyst,
                  dtg = :new.dtg,
                  comment_type = :new.comment_type
                where comment_id= :old.comment_id;
        ELSE
                delete from rmsman.gards_comments where comment_id =
:old.comment_id;
        END IF;
end;
```

5.3.82. GARDS_EFFICIENCY_CAL_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_EFFICIENCY_CAL
Trigger body:	

```
begin
        IF INSERTING THEN
                insert into rmsman.gards_efficiency_cal (
                  sample_id,
                  degree,
                  efftype,
                  coeff1,
                  coeff2,
                  coeff3,
                  coeff4,
                  coeff5,
                  coeff6,
                  coeff7,
                  coeff8
                )
                values (
                  :new.sample_id,
                  :new.degree,
                  :new.efftype,
                  :new.coeff1,
                  :new.coeff2,
                  :new.coeff3,
                  :new.coeff4,
                  :new.coeff5,
                  :new.coeff6,
                  :new.coeff7,
                  :new.coeff8
                );
        ELSIF UPDATING THEN
                update rmsman.gards_efficiency_cal set
                  sample_id = :new.sample_id,
                  degree = :new.degree,
                  efftype = :new.efftype,
                  coeff1 = :new.coeff1,
                  coeff2 = :new.coeff2,
                  coeff3 = :new.coeff3,
                  coeff4 = :new.coeff4,
                  coeff5 = :new.coeff5,
                  coeff6 = :new.coeff6,
```

```
                coeff7 = :new.coeff7,
                coeff8 = :new.coeff8
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_efficiency_cal where sample_id =
:old.sample_id;
       END IF;
end;
```

5.3.83. GARDS_EFFICIENCY_PAIRS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT
Table:	GARDS_EFFICIENCY_PAIRS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_efficiency_pairs (
                sample_id,
                effic_energy,
                efficiency,
                effic_error
              )
              values (
                :new.sample_id,
                :new.effic_energy,
                :new.efficiency,
                :new.effic_error
              );
       ELSIF UPDATING THEN
              update rmsman.gards_efficiency_pairs set
                sample_id = :new.sample_id,
                effic_energy = :new.effic_energy,
                efficiency = :new.efficiency ,
                effic_error = :new.effic_error
              where sample_id= :old.sample_id and effic_energy =
:old.effic_energy;
       ELSE
              delete from rmsman.gards_efficiency_pairs where sample_id
= :old.sample_id and effic_energy = :old.effic_energy ;
       END IF;
end;
```

5.3.84. GARDS_ENERGY_CAL_COV_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ENERGY_CAL_COV
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_energy_cal_cov (
          sample_id,
          row_index,
          col_index,
          coeff
        )
        values (
```

```
            :new.sample_id,
            :new.row_index,
            :new.col_index,
            :new.coeff
        );
    ELSIF UPDATING THEN
        update rmsman.gards_energy_cal_cov set
           sample_id = :new.sample_id,
           row_index = :new.row_index,
           col_index = :new.col_index,
           coeff = :new.coeff
        where sample_id= :old.sample_id;
    ELSE
        delete from rmsman.gards_energy_cal_cov where sample_id =
:old.sample_id;
    END IF;
end;
```

5.3.85. GARDS_ENERGY_CAL_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ENERGY_CAL
Trigger body:	

```
begin
      IF INSERTING THEN
            insert into rmsman.gards_energy_cal (
              sample_id,
              coeff1,
              coeff2,
              coeff3,
              coeff4,
              coeff5,
              coeff6,
              coeff7,
              coeff8,
              energy_units,
              cnv_factor,
              ape,
              det,
              mse,
              tstat,
              score
            )
            values (
              :new.sample_id,
              :new.coeff1,
              :new.coeff2,
              :new.coeff3,
              :new.coeff4,
              :new.coeff5,
              :new.coeff6,
              :new.coeff7,
              :new.coeff8,
              :new.energy_units,
              :new.cnv_factor,
              :new.ape,
              :new.det,
              :new.mse,
              :new.tstat,
              :new.score
```

```
                );
        ELSIF UPDATING THEN
                update rmsman.gards_energy_cal set
                  sample_id = :new.sample_id,
                  coeff1 = :new.coeff1,
                  coeff2 = :new.coeff2,
                  coeff3 = :new.coeff3,
                  coeff4 = :new.coeff4,
                  coeff5 = :new.coeff5,
                  coeff6 = :new.coeff6,
                  coeff7 = :new.coeff7,
                  coeff8 = :new.coeff8,
                  energy_units = :new.energy_units,
                  cnv_factor = :new.cnv_factor,
                  ape = :new.ape,
                  det = :new.det,
                  mse = :new.mse,
                  tstat = :new.tstat,
                  score = :new.score
                where sample_id= :old.sample_id;
        ELSE
                delete from rmsman.gards_energy_cal where sample_id =
:old.sample_id;
        END IF;
end;
```

5.3.86. GARDS_ENERGY_CAL_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ENERGY_CAL_ORIG
Trigger body:	

```
begin
        IF INSERTING THEN
                insert into rmsman.gards_energy_cal_orig (
                  sample_id,
                  coeff1,
                  coeff2,
                  coeff3,
                  coeff4,
                  coeff5,
                  coeff6,
                  coeff7,
                  coeff8,
                  energy_units,
                  cnv_factor,
                  ape,
                  det,
                  mse,
                  tstat,
                  score
                )
                values (
                  :new.sample_id,
                  :new.coeff1,
                  :new.coeff2,
                  :new.coeff3,
                  :new.coeff4,
                  :new.coeff5,
                  :new.coeff6,
                  :new.coeff7,
```

```
                :new.coeff8,
                :new.energy_units,
                :new.cnv_factor,
                :new.ape,
                :new.det,
                :new.mse,
                :new.tstat,
                :new.score
              );
       ELSIF UPDATING THEN
              update rmsman.gards_energy_cal_orig set
                sample_id = :new.sample_id,
                coeff1 = :new.coeff1,
                coeff2 = :new.coeff2,
                coeff3 = :new.coeff3,
                coeff4 = :new.coeff4,
                coeff5 = :new.coeff5,
                coeff6 = :new.coeff6,
                coeff7 = :new.coeff7,
                coeff8 = :new.coeff8,
                energy_units = :new.energy_units,
                cnv_factor = :new.cnv_factor,
                ape = :new.ape,
                det = :new.det,
                mse = :new.mse,
                tstat = :new.tstat,
                score = :new.score
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_energy_cal_orig where sample_id
= :old.sample_id;
       END IF;
end;
```

5.3.87. GARDS_ENERGY_PAIRS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ENERGY_PAIRS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_energy_pairs (
                sample_id,
                cal_energy,
                channel,
                cal_error
              )
              values (
                :new.sample_id,
                :new.cal_energy,
                :new.channel,
                :new.cal_error
              );
       ELSIF UPDATING THEN
              update rmsman.gards_energy_pairs set
                sample_id = :new.sample_id,
                cal_energy = :new.cal_energy,
                channel = :new.channel,
                cal_error = :new.cal_error
              where sample_id= :old.sample_id and cal_energy =
```

```
:old.cal_energy;
      ELSE
            delete from rmsman.gards_energy_pairs where sample_id
= :old.sample_id and
                  cal_energy = :old.cal_energy;
      END IF;
end;
```

5.3.88. GARDS_ENERGY_PAIRS_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ENERGY_PAIRS_ORIG
Trigger body:	

```
begin
      IF INSERTING THEN
            insert into rmsman.gards_energy_pairs_orig (
              sample_id,
              cal_energy,
              channel,
              cal_error
            )
            values (
              :new.sample_id,
              :new.cal_energy,
              :new.channel,
              :new.cal_error
            );
      ELSIF UPDATING THEN
            update rmsman.gards_energy_pairs_orig set
              sample_id   = :new.sample_id,
              cal_energy  = :new.cal_energy,
              channel     = :new.channel,
              cal_error   = :new.cal_error
            where sample_id= :old.sample_id;
      ELSE
            delete from rmsman.gards_energy_pairs_orig where
sample_id = :old.sample_id;
      END IF;
end;
```

5.3.89. GARDS_NCL_LNS_IDD_ORG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_LINES_IDED_ORIG
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_nucl_lines_ided_orig (
    sample_id,
    station_id,
    detector_id,
    name, energy,
    energy_err,
    abundance,
    abundance_err,
    peak,
```

```
    activity,
    activ_err,
    effic,
    effic_err,
    mda,
    key_flag,
    nuclide_id,
                  csc_ratio,
                  csc_ratio_err,
                  csc_mod_flag,
                  id_percent
  )
  values (
    :new.sample_id,
    :new.station_id,
    :new.detector_id,
    :new.name,
    :new.energy,
    :new.energy_err,
    :new.abundance,
    :new.abundance_err,
    :new.peak,
    :new.activity,
    :new.activ_err,
    :new.effic,
    :new.effic_err,
    :new.mda,
    :new.key_flag,
    :new.nuclide_id,
                  :new.csc_ratio,
                  :new.csc_ratio_err,
                  :new.csc_mod_flag,
                  :new.id_percent
  );
 ELSIF UPDATING THEN
  update rmsman.gards_nucl_lines_ided_orig set
     sample_id = :new.sample_id,
     station_id = :new.station_id,
     detector_id = :new.detector_id,
     name = :new.name,
     energy = :new.energy,
     energy_err = :new.energy_err,
     abundance = :new.abundance,
     abundance_err = :new.abundance_err,
     peak = :new.peak,
     activity = :new.activity,
     activ_err = :new.activ_err,
     effic = :new.effic,
     effic_err = :new.effic_err,
     mda = :new.mda,
     key_flag = :new.key_flag,
     nuclide_id = :new.nuclide_id,
                  csc_ratio = :new.csc_ratio,
                  csc_ratio_err = :new.csc_ratio_err,
                  csc_mod_flag = :new.csc_mod_flag,
                  id_percent = :new.id_percent
  where sample_id= :old.sample_id and name = :old.name and energy =
:old.energy;
 ELSE
  delete from rmsman.gards_nucl_lines_ided_orig where sample_id =
:old.sample_id
           and name = :old.name and energy = :old.energy;
 END IF;
end;
```

5.3.90. GARDS_NUCL_IDED_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_IDED
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_nucl_ided (
                sample_id,
                station_id,
                detector_id,
                nuclide_id,
                name,
                type,
                halflife,
                ave_activ,
                ave_activ_err,
                activ_key,
                activ_key_err,
                mda,
                mda_err,
                nid_flag,
                activ_decay,
                activ_decay_err,
                comp_confid,
                report_mda,
                pd_mod_flag,
                   csc_ratio,
                   csc_ratio_err,
                   csc_mod_flag
              )
              values (
                :new.sample_id,
                :new.station_id,
                :new.detector_id,
                :new.nuclide_id,
                :new.name, :new.type,
                :new.halflife ,
                :new.ave_activ,
                :new.ave_activ_err,
                :new.activ_key,
                :new.activ_key_err,
                :new.mda,
                :new.mda_err,
                :new.nid_flag,
                :new.activ_decay,
                :new.activ_decay_err,
                :new.comp_confid,
                :new.report_mda,
                :new.pd_mod_flag,
                   :new.csc_ratio,
                   :new.csc_ratio_err,
                   :new.csc_mod_flag
              );
       ELSIF UPDATING THEN
              update rmsman.gards_nucl_ided set
                sample_id = :new.sample_id,
                station_id = :new.station_id,
                detector_id = :new.detector_id,
                nuclide_id = :new.nuclide_id,
```

```
                name = :new.name,
                type = :new.type,
                halflife = :new.halflife ,
                ave_activ = :new.ave_activ,
                ave_activ_err = :new.ave_activ_err ,
                activ_key = :new.activ_key,
                activ_key_err = :new.activ_key_err,
                mda = :new.mda,
                mda_err = :new.mda_err,
                nid_flag = :new.nid_flag,
                activ_decay = :new.activ_decay,
                activ_decay_err = :new.activ_decay_err,
                comp_confid = :new.comp_confid,
                report_mda = :new.report_mda,
                pd_mod_flag = :new.pd_mod_flag,
                   csc_ratio = :new.csc_ratio,
                   csc_ratio_err = :new.csc_ratio_err,
                   csc_mod_flag = :new.csc_mod_flag
             where sample_id= :old.sample_id and name = :old.name;
      ELSE
             delete from rmsman.gards_nucl_ided where sample_id =
:old.sample_id and name = :old.name;
      END IF;
end;
```

5.3.91. GARDS_NUCL_IDED_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_IDED_ORIG
Trigger body:	

```
begin
      IF INSERTING THEN
             insert into rmsman.gards_nucl_ided_orig (
               sample_id,
               station_id,
               detector_id,
               nuclide_id,
               name,
               type,
               halflife,
               ave_activ,
               ave_activ_err,
               activ_key,
               activ_key_err,
               mda,
               mda_err,
               nid_flag,
               activ_decay,
               activ_decay_err,
               comp_confid,
               report_mda,
               pd_mod_flag,
                  csc_ratio,
                  csc_ratio_err,
                  csc_mod_flag
             )
             values (
               :new.sample_id,
               :new.station_id,
               :new.detector_id,
```

```
                  :new.nuclide_id,
                  :new.name,
                  :new.type,
                  :new.halflife,
                  :new.ave_activ,
                  :new.ave_activ_err,
                  :new.activ_key,
                  :new.activ_key_err,
                  :new.mda,
                  :new.mda_err,
                  :new.nid_flag,
                  :new.activ_decay,
                  :new.activ_decay_err,
                  :new.comp_confid,
                  :new.report_mda,
                  :new.pd_mod_flag,
                     :new.csc_ratio,
                     :new.csc_ratio_err,
                     :new.csc_mod_flag
                );
        ELSIF UPDATING THEN
                update rmsman.gards_nucl_ided_orig set
                  sample_id = :new.sample_id,
                  station_id = :new.station_id ,
                  detector_id = :new.detector_id,
                  nuclide_id = :new.nuclide_id,
                  name = :new.name,
                  type = :new.type,
                  halflife = :new.halflife,
                  ave_activ = :new.ave_activ,
                  ave_activ_err = :new.ave_activ_err,
                  activ_key = :new.activ_key,
                  activ_key_err = :new.activ_key_err,
                  mda = :new.mda,
                  mda_err = :new.mda_err,
                  nid_flag = :new.nid_flag,
                  activ_decay = :new.activ_decay,
                  activ_decay_err = :new.activ_decay_err,
                  comp_confid = :new.comp_confid ,
                  report_mda = :new.report_mda,
                  pd_mod_flag = :new.pd_mod_flag,
                     csc_ratio = :new.csc_ratio,
                     csc_ratio_err = :new.csc_ratio_err,
                     csc_mod_flag = :new.csc_mod_flag
                where sample_id= :old.sample_id and name = :old.name;
        ELSE
                delete from rmsman.gards_nucl_ided_orig where sample_id =
:old.sample_id and name = :old.name;
        END IF;

end;
```

5.3.92. GARDS_NUCL_LINES_IDED_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_LINES_IDED

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  insert into rmsman.gards_nucl_lines_ided (`

```
    sample_id,
    station_id,
    detector_id,
    name,
    energy,
    energy_err,
    abundance,
    abundance_err,
    peak,
    activity,
    activ_err,
    effic,
    effic_err,
    mda,
    key_flag,
    nuclide_id,
                  csc_ratio,
                  csc_ratio_err,
                  csc_mod_flag,
                  id_percent
  )
  values (
    :new.sample_id,
    :new.station_id,
    :new.detector_id,
    :new.name,
    :new.energy,
    :new.energy_err,
    :new.abundance,
    :new.abundance_err,
    :new.peak,
    :new.activity,
    :new.activ_err,
    :new.effic,
    :new.effic_err,
    :new.mda,
    :new.key_flag,
    :new.nuclide_id,
                  :new.csc_ratio,
                  :new.csc_ratio_err,
                  :new.csc_mod_flag,
                  :new.id_percent
  );
 ELSIF UPDATING THEN
  update rmsman.gards_nucl_lines_ided set
     sample_id = :new.sample_id,
     station_id = :new.station_id,
     detector_id = :new.detector_id,
     name = :new.name,
     energy = :new.energy,
     energy_err = :new.energy_err,
     abundance = :new.abundance,
     abundance_err = :new.abundance_err,
     peak = :new.peak,
     activity = :new.activity,
     activ_err = :new.activ_err,
     effic = :new.effic ,
     effic_err = :new.effic_err,
     mda = :new.mda,
     key_flag = :new.key_flag,
     nuclide_id = :new.nuclide_id,
                  csc_ratio = :new.csc_ratio,
                  csc_ratio_err = :new.csc_ratio_err,
                  csc_mod_flag = :new.csc_mod_flag,
```

```
                    id_percent = :new.id_percent
  where sample_id= :old.sample_id and name = :old.name and energy =
:old.energy;
 ELSE
  delete from rmsman.gards_nucl_lines_ided where sample_id =
:old.sample_id
   and name = :old.name and energy = :old.energy;
 END IF;
end;
```

5.3.93. GARDS_PEAKS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_PEAKS
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_peaks (
    sample_id,
    peak_id,
    centroid,
    centroid_err,
    energy, energy_err,
    left_chan,
    width,
     back_count,
    back_uncer,
    fwhm,
    fwhm_err,
    area,
    area_err,
    original_area,
     original_uncer,
    counts_sec,
    counts_sec_err,
    efficiency,
    eff_error,
     back_channel,
    ided,
    fitted,
    multiplet,
    peak_sig,
    lc,
    pss,
    peak_tol,
    detectability
  )
  values (
    :new.sample_id,
    :new.peak_id,
    :new.centroid,
    :new.centroid_err,
    :new.energy,
    :new.energy_err,
    :new.left_chan,
    :new.width,
    :new.back_count,
    :new.back_uncer,
    :new.fwhm,
    :new.fwhm_err,
```

```
    :new.area,
    :new.area_err,
    :new.original_area,
    :new.original_uncer,
    :new.counts_sec,
    :new.counts_sec_err,
    :new.efficiency,
    :new.eff_error,
    :new.back_channel,
    :new.ided,
    :new.fitted,
    :new.multiplet,
    :new.peak_sig,
    :new.lc,
    :new.pss,
    :new.peak_tol,
    :new.detectability );
 ELSIF UPDATING THEN
  update rmsman.gards_peaks set
     sample_id = :new.sample_id ,
     peak_id = :new.peak_id,
     centroid = :new.centroid,
     centroid_err = :new.centroid_err,
     energy = :new.energy,
     energy_err = :new.energy_err,
     left_chan = :new.left_chan,
     width = :new.width,
     back_count = :new.back_count,
     back_uncer = :new.back_uncer,
     fwhm = :new.fwhm ,
     fwhm_err = :new.fwhm_err,
     area = :new.area,
     area_err = :new.area_err,
     original_area = :new.original_area,
     original_uncer = :new.original_uncer,
     counts_sec = :new.counts_sec ,
     counts_sec_err = :new.counts_sec_err ,
     efficiency = :new.efficiency,
     eff_error = :new.eff_error ,
     back_channel = :new.back_channel,
     ided = :new.ided,
     fitted = :new.fitted,
     multiplet = :new.multiplet,
     peak_sig = :new.peak_sig,
     lc = :new.lc,
     pss = :new.pss,
     peak_tol = :new.peak_tol,
     detectability = :new.detectability
  where sample_id= :old.sample_id and peak_id = :old.peak_id;
 ELSE
  delete from rmsman.gards_peaks where sample_id = :old.sample_id and
peak_id = :old.peak_id;
 END IF;
end;
```

5.3.94. GARDS_PEAKS_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_PEAKS_ORIG

Trigger body:

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_peaks_orig (
    sample_id,
    peak_id,
    centroid,
    centroid_err,
    energy,
    energy_err,
     left_chan,
    width,
    back_count,
    back_uncer,
    fwhm,
    fwhm_err,
    area,
      area_err,
    original_area,
    original_uncer,
    counts_sec,
    counts_sec_err,
       efficiency,
    eff_error,
    back_channel,
    ided,
    fitted,
    multiplet,
    peak_sig,
     lc,
    pss,
    peak_tol,
          detectability
  )
  values (
    :new.sample_id,
    :new.peak_id,
    :new.centroid,
    :new.centroid_err,
    :new.energy,
    :new.energy_err,
    :new.left_chan,
    :new.width,
    :new.back_count,
     :new.back_uncer,
    :new.fwhm,
    :new.fwhm_err,
    :new.area,
    :new.area_err,
     :new.original_area,
    :new.original_uncer,
    :new.counts_sec,
    :new.counts_sec_err,
     :new.efficiency,
    :new.eff_error,
    :new.back_channel,
    :new.ided,
    :new.fitted,
     :new.multiplet,
    :new.peak_sig,
    :new.lc,
    :new.pss,
    :new.peak_tol,
          :new.detectability
  );
```

```
 ELSIF UPDATING THEN
  update rmsman.gards_peaks_orig set
     sample_id = :new.sample_id,
     peak_id = :new.peak_id,
     centroid = :new.centroid,
     centroid_err = :new.centroid_err,
     energy = :new.energy,
     energy_err = :new.energy_err ,
     left_chan = :new.left_chan,
     width = :new.width,
     back_count = :new.back_count ,
     back_uncer = :new.back_uncer,
     fwhm = :new.fwhm ,
     fwhm_err = :new.fwhm_err,
     area = :new.area,
     area_err = :new.area_err,
     original_area = :new.original_area,
     original_uncer = :new.original_uncer,
     counts_sec = :new.counts_sec,
     counts_sec_err = :new.counts_sec_err,
     efficiency = :new.efficiency,
     eff_error = :new.eff_error,
     back_channel = :new.back_channel,
     ided = :new.ided,
     fitted = :new.fitted,
     multiplet = :new.multiplet,
     peak_sig = :new.peak_sig,
     lc = :new.lc,
     pss = :new.pss,
     peak_tol = :new.peak_tol,
          detectability = :new.detectability
  where sample_id= :old.sample_id and peak_id = :old.peak_id;
 ELSE
  delete from rmsman.gards_peaks_orig where sample_id = :old.sample_id
and peak_id = :old.peak_id;
 END IF;
end;
```

5.3.95. GARDS_PRODUCT_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_PRODUCT
Trigger body:	

```
begin
              IF INSERTING THEN
                     insert into rmsman.gards_product
                     (sample_id,
                      foff,
                      dsize,
                      dir,
                      dfile,
                      author,
                      revision,
                      typeid)
                     VALUES (
                     :new.sample_id,
                     :new.foff,
                     :new.dsize,
                     :new.dir,
                     :new.dfile,
```

```
                    :new.author,
                    :new.revision,
                    :new.typeid);
             ELSIF UPDATING THEN
                    update rmsman.gards_product set
                    sample_id = :new.sample_id,
                    foff = :new.foff,
                    dsize = :new.dsize,
                    dir = :new.dir,
                    dfile = :new.dfile,
                    author = :new.author,
                    revision = :new.revision,
                    typeid = :new.typeid
                  where sample_id= :old.sample_id and dfile =
:old.dfile and typeid = :old.typeid;
             ELSE
                    delete from rmsman.gards_product where
                           sample_id = :old.sample_id and dfile =
:old.dfile and typeid = :old.typeid;
             END IF;
      end;
```

5.3.96. GARDS_PROD_TO_FILEPROD

Type:	AFTER EACH ROW
Event:	INSERT
Table:	GARDS_PRODUCT
Trigger body:	

```
DECLARE
  Id            NUMBER(10);
   BEGIN
        SELECT keyvalue into Id from lastid
                where keyname = 'fpid'
                for update of lastid.keyvalue;
                INSERT into fileproduct
            SELECT
                lastid.keyvalue+1,
                :new.typeid,
                :new.dir,
                :new.dfile,
                :new.foff,
                :new.dsize,
                0,
                0,
                '',
                :new.sample_id,
                'auto_SAINT',
                1,
                1,
                0,
                sysdate
            FROM
                FPDescription f, lastid lastid
            WHERE
                f.typeid=:new.typeid
             AND
                lastid.keyname = 'fpid';
        UPDATE lastid set keyvalue = keyvalue + 1
                where keyname = 'fpid';
END;
```

5.3.97. GARDS_QCHISTORY_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_QCHISTORY
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_qchistory (
                station_id,
                detector_id,
                sample_id,
                state,
                lddate
              )
              values (
                :new.station_id,
                :new.detector_id,
                :new.sample_id,
                :new.state,
                :new.lddate
              );
       ELSIF UPDATING THEN
              update rmsman.gards_qchistory set
                station_id = :new.station_id,
                detector_id = :new.detector_id,
                sample_id = :new.sample_id ,
                state = :new.state,
                lddate = :new.lddate
              where sample_id= :old.sample_id and state = :old.state;
       ELSE
              delete from rmsman.gards_qchistory where sample_id =
:old.sample_id
                     and state = :old.state;
       END IF;
end;
```

5.3.98. GARDS_QC_RESULTS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_QC_RESULTS
Trigger body:	

```
begin
 IF INSERTING THEN
        insert into rmsman.gards_qc_results (
          sample_id,
          test_name,
          flag,
          qc_comment
        )
        values (
          :new.sample_id,
          :new.test_name,
          :new.flag,
          :new.qc_comment
        );
    ELSIF UPDATING THEN
```

```
        update rmsman.gards_qc_results set
           sample_id = :new.sample_id,
           test_name = :new.test_name,
           flag = :new.flag,
           qc_comment = :new.qc_comment
        where sample_id = :old.sample_id;
    ELSE
          delete from rmsman.gards_qc_results where sample_id =
:old.sample_id;
    END IF;
end;
```

5.3.99. GARDS_RESOLUTION_CAL_COV_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_RESOLUTION_CAL_COV
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_resolution_cal_cov (
          sample_id,
          row_index,
          col_index,
          coeff
        )
        values (
          :new.sample_id,
          :new.row_index,
          :new.col_index,
          :new.coeff
        );
    ELSIF UPDATING THEN
        update rmsman.gards_resolution_cal_cov set
           sample_id = :new.sample_id,
           row_index = :new.row_index,
           col_index = :new.col_index,
           coeff = :new.coeff
        where sample_id= :old.sample_id;
    ELSE
        delete from rmsman.gards_resolution_cal_cov where sample_id
= :old.sample_id;
    END IF;
end;
```

5.3.100. GARDS_RESOLUTION_CAL_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_RESOLUTION_CAL
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_resolution_cal (
                sample_id,
                coeff1,
                coeff2,
                coeff3,
```

```
                coeff4,
                coeff5,
                coeff6,
                coeff7,
                coeff8
              )
              values (
                :new.sample_id,
                :new.coeff1,
                :new.coeff2,
                :new.coeff3,
                :new.coeff4,
                :new.coeff5,
                :new.coeff6,
                :new.coeff7,
                :new.coeff8
              );
       ELSIF UPDATING THEN
              update rmsman.gards_resolution_cal set
                sample_id = :new.sample_id,
                coeff1 = :new.coeff1,
                coeff2 = :new.coeff2,
                coeff3 = :new.coeff3,
                coeff4 = :new.coeff4,
                coeff5 = :new.coeff5,
                coeff6 = :new.coeff6,
                coeff7 = :new.coeff7,
                coeff8 = :new.coeff8
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_resolution_cal where sample_id =
:old.sample_id;
       END IF;
end;
```

5.3.101. GARDS_RESOLUTION_PAIRS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_RESOLUTION_PAIRS
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsman.gards_resolution_pairs (
    sample_id,
    res_energy,
    resolution,
    res_error
  )
  values (
    :new.sample_id,
    :new.res_energy,
    :new.resolution,
    :new.res_error
  );
 ELSIF UPDATING THEN
  update rmsman.gards_resolution_pairs set
     sample_id = :new.sample_id,
     res_energy = :new.res_energy,
     resolution = :new.resolution,
     res_error = :new.res_error
```

```
  where sample_id= :old.sample_id and res_energy = :old.res_energy;
 ELSE
  delete from rmsman.gards_resolution_pairs where sample_id =
:old.sample_id and res_energy = :old.res_energy;
 END IF;
end;
```

5.3.102. GARDS_RES_CAL_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_RESOLUTION_CAL_ORIG
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_resolution_cal_orig (
                sample_id,
                coeff1,
                coeff2,
                coeff3,
                coeff4,
                coeff5,
                coeff6,
                coeff7,
                coeff8
              )
              values (
                :new.sample_id,
                :new.coeff1,
                :new.coeff2,
                :new.coeff3,
                :new.coeff4,
                :new.coeff5,
                :new.coeff6,
                :new.coeff7,
                :new.coeff8
              );
       ELSIF UPDATING THEN
              update rmsman.gards_resolution_cal_orig set
                sample_id = :new.sample_id,
                coeff1 = :new.coeff1,
                coeff2 = :new.coeff2,
                coeff3 = :new.coeff3,
                coeff4 = :new.coeff4,
                coeff5 = :new.coeff5,
                coeff6 = :new.coeff6,
                coeff7 = :new.coeff7,
                coeff8 = :new.coeff8
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_resolution_cal_orig where
sample_id = :old.sample_id;
       END IF;
end;
```

5.3.103. GARDS_RES_PAIRS_ORIG_I_U_D

Type:	AFTER EACH ROW

Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_RESOLUTION_PAIRS_ORIG

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  insert into rmsman.gards_resolution_pairs_orig (`
	`  sample_id,`
	`  res_energy,`
	`  resolution,`
	`  res_error`
	`  )`
	`  values (`
	`  :new.sample_id,`
	`  :new.res_energy,`
	`  :new.resolution,`
	`  :new.res_error`
	`  );`
	`  ELSIF UPDATING THEN`
	`  update rmsman.gards_resolution_pairs_orig set`
	`  sample_id  = :new.sample_id,`
	`  res_energy  = :new.res_energy,`
	`  resolution  = :new.resolution,`
	`  res_error  = :new.res_error`
	`  where sample_id= :old.sample_id;`
	`  ELSE`
	`  delete from rmsman.gards_resolution_pairs_orig where sample_id = :old.sample_id;`
	`  END IF;`
	`end;`

5.3.104. GARDS_RLR_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.105. GARDS_ROI_CHANNELS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ROI_CHANNELS

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  insert into rmsman.gards_roi_channels (`
	`  sample_id, roi, b_chan_start, b_chan_stop, g_chan_start, g_chan_stop`
	`  )`
	`  values (`
	`  :new.sample_id, :new.roi, :new.b_chan_start, :new.b_chan_stop, :new.g_chan_start, :new.g_chan_stop);`
	`  ELSIF UPDATING THEN`
	`  update rmsman.gards_roi_channels set`

```
                sample_id = :new.sample_id,
                roi = :new.sample_id,
                b_chan_start = :new.b_chan_start,
                b_chan_stop = :new.b_chan_stop,
                g_chan_start = :new.g_chan_start,
                g_chan_stop = :new.g_chan_stop
              where sample_id= :old.sample_id and roi = :old.roi;
       ELSE
              delete from rmsman.gards_roi_channels where sample_id
= :old.sample_id and roi = :old.roi;
       END IF;
end;
```

5.3.106. GARDS_ROI_CONCS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ROI_CONCS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_roi_concs (
                sample_id, roi, activity, activ_err, mda, nid_flag,
report_mda
              )
              values (
                :new.sample_id, :new.roi, :new.activity,
:new.activ_err, :new.mda, :new.nid_flag, :new.report_mda
              );
       ELSIF UPDATING THEN
              update rmsman.gards_roi_concs set
                sample_id = :new.sample_id,
                roi = :new.sample_id,
                activity = :new.activity,
                activ_err = :new.activ_err,
                mda = :new.mda,
                nid_flag = :new.nid_flag,
                report_mda = :new.report_mda
              where sample_id= :old.sample_id and roi = :old.roi;
       ELSE
              delete from rmsman.gards_roi_concs where sample_id =
:old.sample_id and roi = :old.roi;
       END IF;
end;
```

5.3.107. GARDS_ROI_COUNTS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ROI_COUNTS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_roi_counts (
                sample_id, roi, gross, gross_err, compton, compton_err,
                interference, interference_err, memory, memory_err,
detector_back, detector_back_err, net, net_err, lc
              )
```

```
              values (
                :new.sample_id, :new.roi, :new.gross,
:new.gross_err, :new.compton,
                :new.compton_err, :new.interference,
:new.interference_err, :new.memory,
                :new.memory_err, :new.detector_back,
:new.detector_back_err, :new.net, :new.net_err, :new.lc
              );
       ELSIF UPDATING THEN
              update rmsman.gards_roi_counts set
                sample_id = :new.sample_id,
                roi = :new.sample_id,
                gross = :new.gross,
                gross_err = :new.gross_err,
                compton = :new.compton,
                compton_err = :new.compton_err,
                interference = :new.interference,
                interference_err = :new.interference_err,
                memory = :new.memory,
                memory_err = :new.memory_err,
                detector_back = :new.detector_back,
                detector_back_err = :new.detector_back_err,
                net = :new.net,
                net_err = :new.net_err,
                lc = :new.lc
              where sample_id= :old.sample_id and roi = :old.roi;
       ELSE
              delete from rmsman.gards_roi_counts where sample_id =
:old.sample_id and roi = :old.roi;
       END IF;
end;
```

5.3.108. GARDS_ROI_LIMITS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_ROI_LIMITS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_roi_limits (
                sample_id, roi, b_energy_start, b_energy_stop,
g_energy_start, g_energy_stop
              )
              values (
                :new.sample_id, :new.roi, :new.b_energy_start,
                :new.b_energy_stop, :new.g_energy_start,
:new.g_energy_stop
              );
       ELSIF UPDATING THEN
              update rmsman.gards_roi_limits set
                sample_id = :new.sample_id,
                roi = :new.sample_id,
                b_energy_start = :new.b_energy_start,
                b_energy_stop = :new.b_energy_stop,
                g_energy_start = :new.g_energy_start,
                g_energy_stop = :new.g_energy_stop
              where sample_id= :old.sample_id and roi = :old.roi;
       ELSE
              delete from rmsman.gards_roi_limits where sample_id =
:old.sample_id and roi = :old.roi;
```

```
        END IF;
end;
```

5.3.109. GARDS_SAINT_PROC_PAR_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAINT_PROCESS_PARAMS
Trigger body:	

```
begin
    IF INSERTING THEN
         insert into rmsman.gards_saint_process_params
           (sample_id, name, value)
         values (:new.sample_id, :new.name, :new.value);
    ELSIF UPDATING THEN
         update rmsman.gards_saint_process_params set
           sample_id = :new.sample_id,
           name = :new.name,
           value = :new.value
         where sample_id= :old.sample_id and name = :old.name;
    ELSE
        delete from rmsman.gards_saint_process_params where
           sample_id = :old.sample_id and name = :old.name;
    END IF;
end;
```

5.3.110. GARDS_SAMPLE_CAT_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_AUTO_SAMPLE_CAT
Trigger body:	

```
begin
              IF INSERTING THEN
                     insert into rmsman.gards_sample_cat
                     (sample_id,
                      name,
                      method_id,
                      category,
                      upper_bound,
                      lower_bound,
                      central_value,
                      delta,
                      activity,
                      hold)
                     values (
                     :new.sample_id,
                     :new.name,
                     :new.method_id,
                     :new.category,
                     :new.upper_bound,
                     :new.lower_bound,
                     :new.central_value,
                     :new.delta,
                     :new.activity,
                     :new.hold);
              ELSIF UPDATING THEN
                     update rmsman.gards_sample_cat set
```

```
                    sample_id = :new.sample_id,
                    name = :new.name,
                    method_id = :new.method_id,
                    category = :new.category,
                    upper_bound = :new.upper_bound,
                    lower_bound = :new.lower_bound,
                    central_value = :new.central_value,
                    delta = :new.delta,
                    activity = :new.activity,
                    hold = :new.hold
                  where sample_id= :old.sample_id and name =
:old.name;
             ELSE
                    delete from rmsman.gards_sample_cat where
                           sample_id = :old.sample_id and name =
:old.name;
             END IF;
      end;
```

5.3.111. GARDS_SAMPLE_DATA_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_DATA
Trigger body:	

```
begin
      IF INSERTING THEN
        insert into rmsman.gards_sample_data


(site_det_code,sample_id,station_id,detector_id,input_file_name,

      sample_type,data_type,geometry,spectral_qualifier,transmit_dtg,

      collect_start,collect_stop,acquisition_start,acquisition_stop,
             acquisition_real_sec,acquisition_live_sec,quantity)

             values
(:new.site_det_code,:new.sample_id,:new.station_id,:new.detector_id,
             :new.input_file_name,:new.sample_type,:new.data_type,:new
.geometry,
             :new.spectral_qualifier,:new.transmit_dtg,:new.collect_st
art,:new.collect_stop,
             :new.acquisition_start,:new.acquisition_stop,:new.acquisi
tion_real_sec,
             :new.acquisition_live_sec,:new.quantity);
      ELSIF UPDATING THEN
         update rmsman.gards_sample_data set
             site_det_code = :new.site_det_code,
             sample_id = :new.sample_id,
             station_id = :new.station_id,
             detector_id = :new.detector_id,
             input_file_name = :new.input_file_name,
             sample_type = :new.sample_type,
             data_type = :new.data_type,
             geometry = :new.geometry,
             spectral_qualifier = :new.spectral_qualifier,
             transmit_dtg = :new.transmit_dtg,
             collect_start = :new.collect_start,
             collect_stop = :new.collect_stop,
             acquisition_start = :new.acquisition_start,
```

```
              acquisition_stop = :new.acquisition_stop,
              acquisition_real_sec = :new.acquisition_real_sec,
              acquisition_live_sec = :new.acquisition_live_sec,
              quantity = :new.quantity
             where sample_id= :old.sample_id;
       ELSE
          delete from rmsman.gards_sample_data where sample_id =
:old.sample_id;
       END IF;
end;
```

5.3.112. GARDS_SAMPLE_FLAGS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_FLAGS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_sample_flags (
                sample_id,
                flag_id,
                result,
                value
              )
              values (
                :new.sample_id,
                :new.flag_id,
                :new.result,
                :new.value
              );
       ELSIF UPDATING THEN
              update rmsman.gards_sample_flags set
                sample_id = :new.sample_id,
                flag_id = :new.flag_id,
                result = :new.result,
                value = :new.value
              where sample_id = :old.sample_id and flag_id =
:old.flag_id;
       ELSE
              delete from rmsman.gards_sample_flags where sample_id
= :old.sample_id and flag_id = :old.flag_id;
       END IF;
end;
```

5.3.113. GARDS_SAMPLE_PROC_PARAMS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_PROC_PARAMS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_sample_proc_params (
                sample_id, do_back, back_data_type, back_sample_id,
nuclide_lib,
                energy_tol, mda_level, nid_confid, squant_err,
buildtype,
```

```
                peak_sense, peak_start, peak_end, fwhm_mult_width,
                left_fwhm_lim, right_fwhm_lim, back_chan, back_type,
                fit_singlets, crit_level, fix_fwhm, area_reject,
mdc_width,
                lc_abscissa, do_pd_calc, do_csc)
              values (
                :new.sample_id, :new.do_back, :new.back_data_type,
:new.back_sample_id, :new.nuclide_lib,
                :new.energy_tol, :new.mda_level, :new.nid_confid,
:new.squant_err, :new.buildtype,
                :new.peak_sense, :new.peak_start, :new.peak_end,
:new.fwhm_mult_width,
                :new.left_fwhm_lim, :new.right_fwhm_lim,
:new.back_chan, :new.back_type,
                :new.fit_singlets, :new.crit_level, :new.fix_fwhm,
:new.area_reject, :new.mdc_width,
                :new.lc_abscissa, :new.do_pd_calc, :new.do_csc);
       ELSIF UPDATING THEN
              update rmsman.gards_sample_proc_params set
                sample_id       = :new.sample_id,
                do_back         = :new.do_back,
                back_data_type  = :new.back_data_type,
                back_sample_id  = :new.back_sample_id,
                nuclide_lib     = :new.nuclide_lib,
                energy_tol      = :new.energy_tol,
                mda_level       = :new.mda_level,
                nid_confid      = :new.nid_confid,
                squant_err      = :new.squant_err,
                buildtype       = :new.buildtype,
                peak_sense      = :new.peak_sense,
                peak_start      = :new.peak_start,
                peak_end        = :new.peak_end,
                fwhm_mult_width = :new.fwhm_mult_width,
                left_fwhm_lim   = :new.left_fwhm_lim,
                right_fwhm_lim  = :new.right_fwhm_lim,
                back_chan       = :new.back_chan,
                back_type       = :new.back_type,
                fit_singlets    = :new.fit_singlets,
                crit_level      = :new.crit_level,
                fix_fwhm        = :new.fix_fwhm,
                area_reject     = :new.area_reject,
                mdc_width       = :new.mdc_width,
                lc_abscissa     = :new.lc_abscissa,
                do_pd_calc      = :new.do_pd_calc,
                   do_csc          = :new.do_csc
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_sample_proc_params where
sample_id = :old.sample_id;
       END IF;
end;
```

5.3.114. GARDS_SAMPLE_RATIOS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_RATIOS

Trigger body:	`begin`
	`  IF INSERTING THEN`
	`  insert into rmsman.gards_sample_ratios (`

```
                sample_id, ratio_id, upper_roi_number,
lower_roi_number, count_ratio, count_ratio_err
              )
              values (
                :new.sample_id, :new.ratio_id,
:new.upper_roi_number, :new.lower_roi_number,
                :new.count_ratio, :new.count_ratio_err
              );
       ELSIF UPDATING THEN
              update rmsman.gards_sample_ratios set
                sample_id = :new.sample_id,
                ratio_id = :new.ratio_id,
                upper_roi_number = :new.upper_roi_number,
                lower_roi_number = :new.lower_roi_number,
                count_ratio = :new.count_ratio,
                count_ratio_err = :new.count_ratio_err
              where sample_id= :old.sample_id and ratio_id =
:old.ratio_id;
       ELSE
              delete from rmsman.gards_sample_ratios where sample_id
= :old.sample_id and ratio_id = :old.ratio_id;
       END IF;
end;
```

5.3.115. GARDS_SAMPLE_STATUS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_STATUS
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_sample_status (
                sample_id,entry_date,cnf_begin_date,

cnf_end_date,review_date,review_time,analyst,status,category,auto_cate
gory
              )
              values (
                :new.sample_id, :new.entry_date, :new.cnf_begin_date,
                :new.cnf_end_date,:new.review_date,:new.review_time,
:new.analyst, :new.status,
                :new.category,:new.auto_category
              );
       ELSIF UPDATING THEN
              update rmsman.gards_sample_status set
                sample_id = :new.sample_id,
                entry_date = :new.entry_date,
                cnf_begin_date = :new.cnf_begin_date,
                cnf_end_date = :new.cnf_end_date,
                review_date = :new.review_date,
                review_time = :new.review_time,
                analyst = :new.analyst,
                status = :new.status,
                category = :new.category,
                auto_category = :new.auto_category
              where sample_id= :old.sample_id;
       ELSE
              delete from rmsman.gards_sample_status where sample_id
= :old.sample_id;
       END IF;
```

	end;

5.3.116. GARDS_SAMP_UPD_PRMS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_UPDATE_PARAMS

Trigger body:	begin
	IF INSERTING THEN
	insert into rmsman.gards_sample_update_params (
	sample_id, mrp_used, mrp_sample_id, gainshift, zeroshift, area_lim,
	use_weight, use_mult, f_linear, bootstrap, min_lookup, rer_intercept,
	rer_slope, ecr_slope, do_reru
	)
	values (
	:new.sample_id, :new.mrp_used, :new.mrp_sample_id, :new.gainshift, :new.zeroshift,
	:new.area_lim, :new.use_weight, :new.use_mult, :new.f_linear, :new.bootstrap,
	:new.min_lookup, :new.rer_intercept, :new.rer_slope, :new.ecr_slope, :new.do_reru
	);
	ELSIF UPDATING THEN
	update rmsman.gards_sample_update_params set
	sample_id = :new.sample_id,
	mrp_used = :new.mrp_used,
	mrp_sample_id = :new.mrp_sample_id,
	gainshift = :new.gainshift,
	zeroshift = :new.zeroshift,
	area_lim = :new.area_lim,
	use_weight = :new.use_weight,
	use_mult = :new.use_mult,
	f_linear = :new.f_linear,
	bootstrap = :new.bootstrap,
	min_lookup = :new.min_lookup,
	rer_intercept = :new.rer_intercept,
	rer_slope = :new.rer_slope,
	ecr_slope = :new.ecr_slope,
	do_reru = :new.do_reru
	where sample_id= :old.sample_id;
	ELSE
	delete from rmsman.gards_sample_update_params where sample_id = :old.sample_id;
	END IF;
	end;

5.3.117. GARDS_SMPLE_XE_P_PRMS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_SAMPLE_XE_PROC_PARAMS

Trigger body:	begin
	IF INSERTING THEN
	insert into rmsman.gards_sample_xe_proc_params (

```
                sample_id, roi, lc_abscissa,beta_ecr_order,
gamma_ecr_order, compton, det_back_used, gas_back_used
              )
              values (
                :new.sample_id, :new.roi,
:new.lc_abscissa,:new.beta_ecr_order, :new.gamma_ecr_order,
:new.compton,
                :new.det_back_used, :new.gas_back_used
              );
       ELSIF UPDATING THEN
              update rmsman.gards_sample_xe_proc_params set
                sample_id = :new.sample_id,
                roi = :new.sample_id,
                lc_abscissa = :new.lc_abscissa,
                beta_ecr_order = :new.beta_ecr_order,
                gamma_ecr_order = :new.gamma_ecr_order,
                compton = :new.compton,
                det_back_used = :new.det_back_used,
                gas_back_used = :new.gas_back_used
              where sample_id= :old.sample_id and roi = :old.roi;
       ELSE
              delete from rmsman.gards_sample_xe_proc_params where
sample_id = :old.sample_id and roi = :old.roi;
       END IF;
end;
```

5.3.118. GARDS_TOTAL_EFFIC_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_TOTAL_EFFIC
Trigger body:	

```
begin
       IF INSERTING THEN
              insert into rmsman.gards_total_effic (
                sample_id,  effic_energy, efficiency , effic_error
              )
              values (
                :new.sample_id, :new.effic_energy, :new.efficiency ,
:new.effic_error
              );
       ELSIF UPDATING THEN
              update rmsman.gards_total_effic set
                sample_id = :new.sample_id ,
                effic_energy = :new.effic_energy,
                efficiency = :new.efficiency,
                effic_error = :new.effic_error
              where sample_id= :old.sample_id and effic_energy =
:old.effic_energy;
       ELSE
              delete from rmsman.gards_total_effic where sample_id =
:old.sample_id and effic_energy = :old.effic_energy;
       END IF;


end;
```

5.3.119. GARDS_USER_COMMENTS_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_USER_COMMENTS
Trigger body:	

```
begin
    IF INSERTING THEN
       insert into rmsman.gards_user_comments (
         comment_id,
         comment_text,
         sample_id
       ) values (
         :new.comment_id,
         :new.comment_text,
         :new.sample_id
       );
    ELSIF UPDATING THEN
       update rmsman.gards_user_comments set
         comment_id = :new.comment_id,
         comment_text = :new.comment_text,
         sample_id = :new.sample_id
       ;
    ELSE
       delete from rmsman.gards_user_comments where comment_id =
:old.comment_id;
    END IF;

end;
```

5.3.120. GARDS_USER_DELETE

Type:	AFTER EACH ROW
Event:	DELETE
Table:	GARDS_USERS
Trigger body:	

```
begin

    update gards_station_assignments set user_id = null where
       user_id = :old.user_id;

end;
```

5.3.121. HISTOGRAM_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_HISTOGRAM
Trigger body:	

```
begin
       :new.moddate := sysdate;
end;
```

5.3.122. INTERVAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_INTERVAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.123. INTERVAL_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_INTERVAL

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select intvl_seq.nextval into new_id from dual;`
	`  :new.intvlid := new_id;`
	`end;`

5.3.124. IRF_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_IRF

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.125. LAB_CAT_DESC_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_LAB_CATEGORY_DESCRIPTION

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.126. MET_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_MET_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.127. MET_DATA_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_MET_DATA

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select met_seq.nextval into new_id from dual;`
	`  :new.met_id := new_id;`
	`end;`

5.3.128. NOTIFY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NOTIFY

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.129. NOTIFY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NOTIFY

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.130. NUCL2QUANTIFY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL2QUANTIFY

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.131. NUCL_IDED_B_I_U

Type:	BEFORE EACH ROW

Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_IDED

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.132. NUCL_IDED_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_IDED

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.133. NUCL_IDED_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_IDED_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.134. NUCL_IDED_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_IDED_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.135. NUCL_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.136. NUCL_LINES_IDED_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LINES_IDED

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.137. NUCL_LINES_IDED_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LINES_IDED

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.138. NUCL_LINES_IDED_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LINES_IDED_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.139. NUCL_LINES_IDED_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LINES_IDED_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.140. NUCL_LINES_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_NUCL_LINES_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.141. PEAKS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PEAKS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.142. PEAKS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PEAKS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.143. PEAKS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PEAKS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.144. PEAKS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PEAKS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.145. PERMISSIONS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PERMISSIONS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.146. POC_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_POC

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.147. PROCESSING_ERRORS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PROCESSING_ERRORS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.148. PROCESS_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAINT_PROCESS_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.149. PROCESS_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAINT_PROCESS_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.150. PROC_PARAMS_TEMPLATE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PROC_PARAMS_TEMPLATE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.151. PRODUCT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PRODUCT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.152. PRODUCT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PRODUCT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.153. PRODUCT_TYPE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_PRODUCT_TYPE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.154. QAT_CONFIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QAT_CONFIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.155. QAT_NOTIFY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QAT_NOTIFY

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.156. QAT_QUERY_FILTER_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QAT_QUERY_FILTER

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.157. QCHISTORY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QCHISTORY

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.158. QCPARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QCPARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.159. QCTARGETS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QCTARGETS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.160. QC_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QC_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.161. QC_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QC_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.162. QUERY_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QUERY_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.163. QUERY_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_QUERY_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.164. RECEIPT_LOG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RECEIPT_LOG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.165. REFLINE_MASTER_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_REFLINE_MASTER

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.166. RELEVANT_NUCLIDES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RELEVANT_NUCLIDES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.167. RESOLUTION_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.168. RESOLUTION_CAL_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.169. RESOLUTION_CAL_COV_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL_COV

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.170. RESOLUTION_CAL_COV_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL_COV

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.171. RESOLUTION_CAL_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.172. RESOLUTION_CAL_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_CAL_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.173. RESOLUTION_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.174. RESOLUTION_PAIRS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_PAIRS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.175. RESOLUTION_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.176. RESOLUTION_PAIRS_ORIG_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RESOLUTION_PAIRS_ORIG

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.177. RLR_CONCLUSIONS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR_CONCLUSIONS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.178. RLR_OBJECTIVE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR_OBJECTIVE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.179. RLR_RATIOS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR_RATIOS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.180. RLR_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.181. RLR_SSREB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_RLR_SSREB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.182. ROI_CHANNELS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_CHANNELS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.183. ROI_CHANNELS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_CHANNELS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.184. ROI_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.185. ROI_CONCS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_CONCS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.186. ROI_COUNTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_COUNTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.187. ROI_COUNTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_COUNTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.188. ROI_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.189. ROI_LIMITS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_LIMITS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.190. ROI_LIMITS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROI_LIMITS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.191. ROLES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROLES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.192. ROLES_PERMISSIONS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_ROLES_PERMISSIONS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.193. SAMPLE_AUX_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_AUX

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.194. SAMPLE_CAT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_CAT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.195. SAMPLE_CERT_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_CERT

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.196. SAMPLE_CERT_LINES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_CERT_LINES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.197. SAMPLE_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.198. SAMPLE_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.199. SAMPLE_DATA_INSERT

Type:	AFTER EACH ROW
Event:	INSERT
Table:	GARDS_SAMPLE_DATA

Trigger body:	`begin`
	
	`  if newstadet(:new.station_id, :new.detector_id) then`
	`  insert into gards_stadet (`
	`  station_id,`
	`  detector_id`
	`  )`
	`  values (`
	`  :new.station_id,`
	`  :new.detector_id`
	`  );`
	`  end if;`
	`end;`

5.3.200. SAMPLE_DESCRIPTION_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_DESCRIPTION

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.201. SAMPLE_FLAGS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_FLAGS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.202. SAMPLE_FLAGS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_FLAGS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.203. SAMPLE_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.204. SAMPLE_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.205. SAMPLE_RATIOS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_RATIOS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.206. SAMPLE_RATIOS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_RATIOS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.207. SAMPLE_STATUS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_STATUS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.208. SAMPLE_STATUS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_STATUS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.209. SAMPLE_STATUS_UPDATE

Type:	AFTER EACH ROW
Event:	UPDATE
Table:	GARDS_SAMPLE_STATUS
Trigger body:	`begin` `  IF :new.category >= 4 AND :old.category IS NULL AND :new.status`

```
= 'R' THEN
              insert into gards_fpe (
                fpid,
                revid,
                dtg,
                sample_id
              )
              values (
                gards_fpid_seq.nextval,
                1,
                sysdate,
                :new.sample_id
              );
       END IF;
end;
```

5.3.210. SAMPLE_UPDATE_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_UPDATE_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.211. SAMPLE_UPDATE_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_UPDATE_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.212. SAMPLE_XE_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SAMPLE_XE_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.213. SAMPLE_XE_PROC_PARAMS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE

Table:	GARDS_SAMPLE_XE_PROC_PARAMS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.214. SOH_CHAR_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SOH_CHAR_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.215. SOH_CHAR_DATA_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_SOH_CHAR_DATA

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select soh_char_seq.nextval into new_id from dual;`
	`  :new.soh_char_id := new_id;`
	`end;`

5.3.216. SOH_CODE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SOH_CODE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.217. SOH_HEADER_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SOH_HEADER

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.218. SOH_NUM_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SOH_NUM_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.219. SOH_NUM_DATA_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_SOH_NUM_DATA

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select soh_num_seq.nextval into new_id from dual;`
	`  :new.soh_num_id := new_id;`
	`end;`

5.3.220. SOH_SENSOR_DATA_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_SOH_SENSOR_DATA

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.221. SOH_SENSOR_DATA_S_I

Type:	BEFORE EACH ROW
Event:	INSERT
Table:	GARDS_SOH_SENSOR_DATA

Trigger body:	`declare`
	`  new_id number;`
	`begin`
	`  select soh_sensor_seq.nextval into new_id from dual;`
	`  :new.soh_sensor_id := new_id;`
	`end;`

5.3.222. SPECTRUM_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE

Table:	GARDS_SPECTRUM

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.223. STADET_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_STADET

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.224. STATIONS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_STATIONS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.225. STATIONS_INSERT

Type:	AFTER EACH ROW
Event:	INSERT
Table:	GARDS_STATIONS

Trigger body:	`begin`
	`  insert into gards_station_assignments (`
	`  station_id,`
	`  user_id`
	`  )`
	`  values (`
	`  :new.station_id,`
	`  NULL`
	`  );`
	`end;`

5.3.226. STATIONS_SCHEDULE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_STATIONS_SCHEDULE
Trigger body:	`begin`

	`:new.moddate := sysdate;` `end;`

5.3.227. STATION_ASSIGNMENTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_STATION_ASSIGNMENTS

Trigger body:	`begin`
	`:new.moddate := sysdate;`
	`end;`

5.3.228. STATUS_HISTORY_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_STATUS_HISTORY

Trigger body:	`begin`
	`:new.moddate := sysdate;`
	`end;`

5.3.229. TOTAL_EFFIC_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_TOTAL_EFFIC

Trigger body:	`begin`
	`:new.moddate := sysdate;`
	`end;`

5.3.230. TOTAL_EFFIC_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_TOTAL_EFFIC

Trigger body:	`begin`
	`:new.moddate := sysdate;`
	`end;`

5.3.231. TRENDVUE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_TRENDVUE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.232. TRENDVUE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_TRENDVUE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.233. UPDATE_NUCL_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_IDED

Trigger body:

```
begin
	IF INSERTING THEN
		insert into rmsauto.gards_nucl_ided_orig (
		  sample_id,
		  station_id,
		  detector_id,
		  nuclide_id,
		  name,
		  type,
		  halflife,
		  ave_activ,
		  ave_activ_err,
		  activ_key,
		  activ_key_err,
		  mda,
		  mda_err,
		  nid_flag,
		  activ_decay,
		  activ_decay_err,
		  comp_confid,
		  report_mda,
		  pd_mod_flag,
		     csc_ratio,
		     csc_ratio_err,
		     csc_mod_flag
		)
		values (
		  :new.sample_id,
		  :new.station_id,
		  :new.detector_id,
		  :new.nuclide_id,
		  :new.name, :new.type,
		  :new.halflife ,
		  :new.ave_activ,
		  :new.ave_activ_err,
		  :new.activ_key,
		  :new.activ_key_err,
		  :new.mda,
		  :new.mda_err,
		  :new.nid_flag,
		  :new.activ_decay,
		  :new.activ_decay_err,
		  :new.comp_confid,
		  :new.report_mda,
		  :new.pd_mod_flag,
		     :new.csc_ratio,
		     :new.csc_ratio_err,
		     :new.csc_mod_flag
		);
	ELSIF UPDATING THEN
		update rmsauto.gards_nucl_ided_orig set
		  sample_id = :new.sample_id,
		  station_id = :new.station_id,
		  detector_id = :new.detector_id,
		  nuclide_id = :new.nuclide_id,
		  name = :new.name,
		  type = :new.type,
		  halflife = :new.halflife ,
		  ave_activ = :new.ave_activ,
		  ave_activ_err = :new.ave_activ_err ,
		  activ_key = :new.activ_key,
		  activ_key_err = :new.activ_key_err,
		  mda = :new.mda,
		  mda_err = :new.mda_err,
```

```
                nid_flag = :new.nid_flag,
                activ_decay = :new.activ_decay,
                activ_decay_err = :new.activ_decay_err,
                comp_confid = :new.comp_confid,
                report_mda = :new.report_mda,
                pd_mod_flag = :new.pd_mod_flag,
                   csc_ratio = :new.csc_ratio,
                   csc_ratio_err = :new.csc_ratio_err,
                   csc_mod_flag = :new.csc_mod_flag
             where sample_id= :old.sample_id and name = :old.name;
      ELSE
             delete from rmsauto.gards_nucl_ided_orig where sample_id
= :old.sample_id and name = :old.name;
      END IF;
end;
```

5.3.234. UPDATE_NUCL_ORIG_LINES_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_NUCL_LINES_IDED
Trigger body:	

```
begin
 IF INSERTING THEN
  insert into rmsauto.gards_nucl_lines_ided_orig (
    sample_id,
    station_id,
    detector_id,
    name,
    energy,
    energy_err,
    abundance,
    abundance_err,
    peak,
    activity,
    activ_err,
    effic,
    effic_err,
    mda,
    key_flag,
    nuclide_id,
                   csc_ratio,
                   csc_ratio_err,
                   csc_mod_flag,
                   id_percent
  )
  values (
    :new.sample_id,
    :new.station_id,
    :new.detector_id,
    :new.name,
    :new.energy,
    :new.energy_err,
    :new.abundance,
    :new.abundance_err,
    :new.peak,
    :new.activity,
    :new.activ_err,
    :new.effic,
    :new.effic_err,
    :new.mda,
```

```
    :new.key_flag,
    :new.nuclide_id,
                  :new.csc_ratio,
                  :new.csc_ratio_err,
                  :new.csc_mod_flag,
                  :new.id_percent
  );
 ELSIF UPDATING THEN
  update rmsauto.gards_nucl_lines_ided_orig set
     sample_id = :new.sample_id,
     station_id = :new.station_id,
     detector_id = :new.detector_id,
     name = :new.name,
     energy = :new.energy,
     energy_err = :new.energy_err,
     abundance = :new.abundance,
     abundance_err = :new.abundance_err,
     peak = :new.peak,
     activity = :new.activity,
     activ_err = :new.activ_err,
     effic = :new.effic ,
     effic_err = :new.effic_err,
     mda = :new.mda,
     key_flag = :new.key_flag,
     nuclide_id = :new.nuclide_id,
                  csc_ratio = :new.csc_ratio,
                  csc_ratio_err = :new.csc_ratio_err,
                  csc_mod_flag = :new.csc_mod_flag,
                  id_percent = :new.id_percent
  where sample_id= :old.sample_id and name = :old.name and energy =
:old.energy;
 ELSE
  delete from rmsauto.gards_nucl_lines_ided_orig where sample_id =
:old.sample_id
   and name = :old.name and energy = :old.energy;
 END IF;
end;
```

5.3.235. UPDATE_PARAMS_TEMPLATE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_UPDATE_PARAMS_TEMPLATE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.236. UPDATE_PEAKS_ORIG_I_U_D

Type:	AFTER EACH ROW
Event:	INSERT OR UPDATE OR DELETE
Table:	GARDS_PEAKS

Trigger body:	`begin`
	` IF INSERTING THEN`
	`  insert into rmsauto.gards_peaks_orig (`
	`  sample_id,`

```
    peak_id,
    centroid,
    centroid_err,
    energy, energy_err,
    left_chan,
    width,
     back_count,
    back_uncer,
    fwhm,
    fwhm_err,
    area,
    area_err,
    original_area,
     original_uncer,
    counts_sec,
    counts_sec_err,
    efficiency,
    eff_error,
     back_channel,
    ided,
    fitted,
    multiplet,
    peak_sig,
    lc,
    pss,
    peak_tol,
    detectability
  )
  values (
    :new.sample_id,
    :new.peak_id,
    :new.centroid,
    :new.centroid_err,
    :new.energy,
    :new.energy_err,
    :new.left_chan,
    :new.width,
    :new.back_count,
    :new.back_uncer,
    :new.fwhm,
    :new.fwhm_err,
    :new.area,
    :new.area_err,
    :new.original_area,
    :new.original_uncer,
    :new.counts_sec,
    :new.counts_sec_err,
    :new.efficiency,
    :new.eff_error,
    :new.back_channel,
    :new.ided,
    :new.fitted,
    :new.multiplet,
    :new.peak_sig,
    :new.lc,
    :new.pss,
    :new.peak_tol,
    :new.detectability );
ELSIF UPDATING THEN
 update rmsauto.gards_peaks_orig set
     sample_id = :new.sample_id ,
     peak_id = :new.peak_id,
     centroid = :new.centroid,
     centroid_err = :new.centroid_err,
```

```
      energy = :new.energy,
      energy_err = :new.energy_err,
      left_chan = :new.left_chan,
      width = :new.width,
      back_count = :new.back_count,
      back_uncer = :new.back_uncer,
      fwhm = :new.fwhm ,
      fwhm_err = :new.fwhm_err,
      area = :new.area,
      area_err = :new.area_err,
      original_area = :new.original_area,
      original_uncer = :new.original_uncer,
      counts_sec = :new.counts_sec ,
      counts_sec_err = :new.counts_sec_err ,
      efficiency = :new.efficiency,
      eff_error = :new.eff_error ,
      back_channel = :new.back_channel,
      ided = :new.ided,
      fitted = :new.fitted,
      multiplet = :new.multiplet,
      peak_sig = :new.peak_sig,
      lc = :new.lc,
      pss = :new.pss,
      peak_tol = :new.peak_tol,
      detectability = :new.detectability
  where sample_id= :old.sample_id and peak_id = :old.peak_id;
 ELSE
  delete from rmsauto.gards_peaks_orig where sample_id =
:old.sample_id and peak_id = :old.peak_id;
 END IF;
end;
```

5.3.237. UPDATE_REFLINES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_UPDATE_REFLINES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.238. USERENV_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_USERENV

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.239. USERS_B_I_U

Type:	BEFORE EACH ROW

Event:	INSERT OR UPDATE
Table:	GARDS_USERS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.240. USERS_ROLES_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_USERS_ROLES

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.241. USER_COMMENTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_USER_COMMENTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.242. USER_COMMENTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_USER_COMMENTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.243. XE_NUCL_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_XE_NUCL_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.244. XE_NUCL_LINES_LIB_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_XE_NUCL_LINES_LIB

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.245. XE_PROC_PARAMS_TEMPLATE_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_XE_PROC_PARAMS_TEMPLATE

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.246. XE_REFLINE_MASTER_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_XE_REFLINE_MASTER

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.3.247. XE_RESULTS_B_I_U

Type:	BEFORE EACH ROW
Event:	INSERT OR UPDATE
Table:	GARDS_XE_RESULTS

Trigger body:	`begin`
	`  :new.moddate := sysdate;`
	`end;`

5.4. Radionuclide Index Descriptions

Table name	Index name	Unique	Index columns
GARDS_AUTO_SAMPLE_CAT	PK_AUTOSAMPCAT	YES	sample_id, name
GARDS_AUTO_SAMPLE_CAT	SAMP_CAT_NDX	NO	sample_id
GARDS_AUX_LINES_LIB	UQ_AUX_LNS_LIB	YES	name, energy, abundance_act
GARDS_BG_CONFIG_PARAMS	BG_CONFIG_PARAMS_NDX	NO	detector_id
GARDS_BG_EFFICIENCY_PAIRS	BG_EFFICIENCY_PAIRS_NDX	NO	sample_id
GARDS_BG_ENERGY_CAL	SYS_C003328	YES	sample_id
GARDS_BG_ENERGY_CAL	SYS_C003378	YES	sample_id
GARDS_BG_ISOTOPE_CONCS	BG_ISOTOPE_CONCS_NDX	NO	sample_id
GARDS_BG_PROC_PARAMS	BG_PROC_PARAMS_NDX	NO	sample_id
GARDS_BG_PROC_PARAMS_ROI	BG_PROC_PARAMS_ROI_NDX	NO	sample_id
GARDS_BG_QC_RESULT	BG_QC_RESULT_NDX	NO	sample_id
GARDS_BG_ROI_CONCS	BG_ROI_CONCS_NDX	NO	sample_id
GARDS_BG_ROI_COUNTS	BG_ROI_COUNTS_NDX	NO	sample_id
GARDS_BG_STD_SPECTRA	BG_STD_SPECTRA_NDX	NO	sample_id
GARDS_BG_STD_SPECTRA_RESULT	BG_STD_SPEC_RES_NDX	NO	sample_id
GARDS_B_ENERGY_PAIRS	B_ENERGY_PAIRS_NDX	NO	sample_id
GARDS_B_ENERGY_PAIRS_ORIG	B_ENERGY_PAIRS_ORIG_NDX	NO	sample_id
GARDS_B_RESOLUTION_PAIRS	B_RESOLUTION_PAIRS_NDX	NO	sample_id
GARDS_B_RESOLUTION_PAIRS_ORIG	B_RESOLUTION_PAIRS_ORIG_NDX	NO	sample_id
GARDS_CAT_CRITERIA_TESTS	PK_CAT_CRIT_TEST_ID	YES	test_id
GARDS_CAT_CRITERIA_TESTS	UQ_CAT_CRIT_TEST_CODE	YES	test_code
GARDS_CAT_TEMPLATE	CAT_TEMPLATE_DET_NDX	NO	detector_id
GARDS_CAT_TEMPLATE	CAT_TEMPLATE_STA_NDX	NO	station_id
GARDS_COMMENTS	COMMENTS_NDX	NO	sample_id, analyst

Table name	Index name	Unique	Index columns
GARDS_COMMENTS	PK_COMMENTS	YES	comment_id
GARDS_COMMENTS_DEFS	PK_COMMENTS_DEF	YES	comment_type
GARDS_CSC_MODCOEFF_LIB	PK_CSC_MODCOEFF	YES	detector_id, name, energy
GARDS_DATA_LOG	DATA_LOG_NDX	NO	station_id, data_type, status
GARDS_DATA_LOG	GDL_RMS_ID_NDX	NO	rms_id
GARDS_DATA_LOG	SYS_C003392	YES	dlid
GARDS_DETECTORS	PK_DETECTORS	YES	detector_id
GARDS_DETECTORS	UQ_DETECTORS	YES	detector_code
GARDS_DIST_SAMPLE_QUEUE	PK_DIST_SAMPLE_QUEUE	YES	sample_id
GARDS_EFFICIENCY_CAL	EFFICIENCY_CAL_NDX	NO	sample_id
GARDS_EFFICIENCY_PAIRS	EFFICIENCY_PAIRS_NDX	NO	sample_id
GARDS_EFFICIENCY_VGSL_PAIRS	EFFICIENCY_VGSL_PAIR_NDX	NO	detector_id
GARDS_ENERGY_CAL	ENERGY_CAL_NDX	NO	sample_id
GARDS_ENERGY_CAL_COV	ENERGY_CAL_COV_NDX	NO	sample_id
GARDS_ENERGY_CAL_ORIG	ENERGY_CAL_ORIG_NDX	NO	sample_id
GARDS_ENERGY_PAIRS	ENERGY_PAIRS_NDX	NO	sample_id
GARDS_ENERGY_PAIRS_ORIG	ENERGY_PAIRS_ORIG_NDX	NO	sample_id
GARDS_ENVIRONMENT	ENVIRONMENT_NDX	NO	sample_id
GARDS_FLAGS	SYS_C003509	YES	flag_id
GARDS_FPE	FPE_NDX	NO	sample_id
GARDS_HISTOGRAM	HISTOGRAM_NDX	NO	sample_id
GARDS_INTERVAL	GINT_LDDATEX	NO	lddate
GARDS_INTERVAL	GINT_MODDATEX	NO	moddate
GARDS_IRF	IRF_NDX	NO	detector_id
GARDS_MET_DATA	MET_DATA_NDX	NO	station_id, start_time, end_time

Table name	Index name	Unique	Index columns
GARDS_NOTIFY	NOTIFY_NDX	NO	poc_id
GARDS_NUCL_IDED	NUCL_IDED_NDX	NO	sample_id, nuclide_id
GARDS_NUCL_IDED	PK_NUCL_IDED	YES	sample_id, name
GARDS_NUCL_IDED_ORIG	NUCL_IDED_ORIG_NDX	NO	sample_id, nuclide_id
GARDS_NUCL_IDED_ORIG	PK_NUCL_IDED_ORIG	YES	sample_id, name
GARDS_NUCL_LINES_IDED	NUCL_LINES_IDED_NDX	NO	sample_id, peak, name
GARDS_NUCL_LINES_IDED_ORIG	NUCL_LINES_IDED_ORIG_NDX	NO	sample_id, peak, name
GARDS_PEAKS	PEAKS_NDX	NO	sample_id, peak_id, energy, ided
GARDS_PEAKS_ORIG	PEAKS_ORIG_NDX	NO	sample_id, peak_id, energy, ided
GARDS_PERMISSIONS	PK_PERMISSIONS	YES	permission_id
GARDS_POC	PK_POC	YES	pocid
GARDS_PROC_PARAMS_TEMPLATE	PROC_PAR_TPL_DET_NDX	NO	detector_id
GARDS_PROC_PARAMS_TEMPLATE	PROC_PAR_TPL_STA_NDX	NO	station_id
GARDS_PRODUCT	PRODUCT_NDX	NO	sample_id
GARDS_QCHISTORY	QCHISTORY_NDX	NO	sample_id
GARDS_QCPARAMS	QCPARAMS_NDX	NO	detector_id
GARDS_QCTARGETS	QCTARGETS_DET_NDX	NO	detector_id
GARDS_QCTARGETS	QCTARGETS_STA_NDX	NO	station_id
GARDS_QC_RESULTS	QC_RESULTS_NDX	NO	sample_id
GARDS_RESOLUTION_CAL	RESOLUTION_CAL_NDX	NO	sample_id
GARDS_RESOLUTION_CAL_ORIG	RESOLUTION_CAL_ORIG_NDX	NO	sample_id
GARDS_RESOLUTION_PAIRS	RESOLUTION_PAIRS_NDX	NO	sample_id
GARDS_RESOLUTION_PAIRS_ORIG	RESOLUTION_PAIRS_ORIG_NDX	NO	sample_id
GARDS_RLR	RLRID_PK	YES	rlr_id

Table name	Index name	Unique	Index columns
GARDS_RLR_CONCLUSIONS	RLR_CONCLUSIONS_NDX	NO	rlr_id
GARDS_RLR_OBJECTIVE	RLR_OBJECTIVE	NO	rlr_id
GARDS_RLR_RATIOS	RLR_RATIOS_NDX	NO	rlr_id
GARDS_RLR_RESULTS	RLR_RESULTS_NDX	NO	rlr_id
GARDS_RLR_SSREB	RLR_SSREB_NDX	NO	rlr_id
GARDS_RLR_SSREB	RLR_SSREB_SID_NDX	NO	sample_id
GARDS_ROI_CHANNELS	ROI_CHANNELS_NDX	NO	sample_id
GARDS_ROI_CONCS	ROI_CONCS_NDX	NO	sample_id
GARDS_ROI_COUNTS	ROI_COUNTS_NDX	NO	sample_id
GARDS_ROI_LIMITS	ROI_LIMITS_NDX	NO	sample_id
GARDS_ROLES	PK_ROLES	YES	role_id
GARDS_ROLES_PERMISSIONS	ROLES_PERMISSIONS_NDX	NO	role_id
GARDS_ROLES_PERMISSIONS	ROLES_PERM_NDX	NO	permission_id
GARDS_SAINT_DEFAULT_PARAMS	UQ_DEFAULT_PARAMS	YES	name
GARDS_SAINT_PROCESS_PARAMS	SAINT_PROC_PARAMS_NDX	NO	sample_id
GARDS_SAMPLE_AUX	PK_SAMPLE_AUX	YES	sample_id
GARDS_SAMPLE_CAT	SAMP_CAT_NDX	NO	sample_id
GARDS_SAMPLE_CERT	SAMPLE_CERT_NDX	NO	sample_id
GARDS_SAMPLE_CERT_LINES	SAMPLE_CERT_LINES_NDX	NO	sample_id
GARDS_SAMPLE_DATA	GSD_ACQUISITION_START_NDX	NO	acquisition_start
GARDS_SAMPLE_DATA	GSD_COLLECT_STOP_NDX	NO	collect_stop
GARDS_SAMPLE_DATA	GSD_DSX	NO	data_type, spectral_qualifier
GARDS_SAMPLE_DATA	PK_SAMPLE_DATA	YES	sample_id
GARDS_SAMPLE_DATA	SAMPLE_DATA_NDX	NO	station_id, detector_id, collect_stop, data_type, sample_type, spectral_qualifier
GARDS_SAMPLE_DATA	UQ_SAMPLE_DATA	YES	station_id, detector_id, collect_start, spectral_qualifier,

Table name	Index name	Unique	Index columns
			acquisition_start, collect_stop, acquisition_stop, spectral_qualifier, transmit_dtg
GARDS_SAMPLE_DESCRIPTION	PK_SAMPLE_DESCRIPTION	YES	sample_id
GARDS_SAMPLE_FLAGS	SAMPLE_FLAGS_NDX	NO	sample_id
GARDS_SAMPLE_PROC_PARAMS	SAMPLE_PROC_PARAMS_NDX	NO	sample_id
GARDS_SAMPLE_RATIOS	SAMPLE_RATIOS_NDX	NO	sample_id
GARDS_SAMPLE_STATUS	PK_SAMPLE_STATUS	YES	sample_id
GARDS_SAMPLE_STATUS	SAMPLE_STATUS_NDX	NO	sample_id, status
GARDS_SAMPLE_UPDATE_PARAMS	SAMPLE_UPDATE_PARAMS_NDX	NO	sample_id
GARDS_SOH_CHAR_DATA	SOH_CHAR_DATA_NDX	NO	station_id, dtg_begin, dtg_end, param_code
GARDS_SOH_CHAR_DATA	SOH_CHAR_DATA_NDX1	NO	dtg_end
GARDS_SOH_CHAR_DATA	UQ_SOH_CHAR_DATA	YES	station_id, detector_id, param_code, dtg_begin, dtg_end
GARDS_SOH_CODE	PK_SOH_CODE	YES	param
GARDS_SOH_HEADER	SYS_C004811	YES	soh_id
GARDS_SOH_HEADER	UQ_SOH_HEADER	YES	station_id, detector_id, dtg_begin, dtg_end
GARDS_SOH_NUM_DATA	SOH_NUM_DATA_NDX	NO	station_id, dtg_begin, dtg_end, param_code
GARDS_SOH_NUM_DATA	SOH_NUM_DTG_BEGIN_NDX	NO	dtg_begin
GARDS_SOH_NUM_DATA	SOH_NUM_DTG_END_NDX	NO	dtg_end
GARDS_SOH_NUM_DATA	SOH_NUM_STAPAR_NDX	NO	station_id, detector_id, param_code
GARDS_SOH_NUM_DATA	UQ_SOH_NUM_DATA	YES	station_id, detector_id, param_code, dtg_begin, dtg_end
GARDS_SOH_SENSOR_DATA	GSSD_DTG_ENDX	NO	dtg_end

Table name	Index name	Unique	Index columns
GARDS_SOH_SENSOR_DATA	UQ_SENSOR_DATA	YES	station_id, detector_id, sensor_type, sensor_name, dtg_begin, dtg_end
GARDS_SPECTRUM	SPECTRUM_NDX	NO	sample_id
GARDS_STADET	PK_STADET	YES	station_id, detector_id
GARDS_STATIONS	PK_STATIONS	YES	station_id
GARDS_STATIONS	UQ_STATIONS	YES	station_code
GARDS_STATIONS_SCHEDULE	STATIONS_SCHEDULE_NDX	NO	station_id
GARDS_STATION_ASSIGNMENTS	STATION_ASSIGN_STA_NDX	NO	station_id
GARDS_STATION_ASSIGNMENTS	STATION_ASSIGN_UID_NDX	NO	user_id
GARDS_STATUS_HISTORY	STATUS_HISTORY_NDX	NO	sample_id
GARDS_TOTAL_EFFIC	TOTAL_EFFIC_NDX	NO	sample_id
GARDS_UPDATE_PARAMS_TEMPLATE	UPDATE_PARAMS_TEMPLA_NDX	NO	detector_id
GARDS_UPDATE_REFLINES	UPDATE_REFLINES_DET_NDX	NO	detector_id
GARDS_UPDATE_REFLINES	UPDATE_REFLINES_NDX	NO	station_id
GARDS_USERENV	UQ_USERENV	YES	name
GARDS_USERS	PK_USERS	YES	user_id
GARDS_USERS_ROLES	USERS_ROLES_ROLE_NDX	NO	role_id
GARDS_USERS_ROLES	USERS_ROLES_UID_NDX	NO	user_id
GARDS_USER_COMMENTS	USER_COMMENTS_NDX	NO	comment_id
GARDS_USER_COMMENTS	USER_COMMENTS_SID_NDX	NO	sample_id
GARDS_XE_PROC_PARAMS_TEMPLATE	XE_PROC_PARAMS_TEMPL_NDX	NO	detector_id
GARDS_XE_RESULTS	XE_RESULTS_NDX	NO	sample_id

5.5. Radionuclide Synonym Descriptions

Schema	Synonym	Table	Table Owner
RMSAUTO	FILEPRODUCT	FILEPRODUCT	IDCX
	FPDESCRIPTION	FPDESCRIPTION	IDCX
	GARDS_AUX_LIB	GARDS_AUX_LIB	RMSMAN
	GARDS_AUX_LINES_LIB	GARDS_AUX_LINES_LIB	RMSMAN
	GARDS_BG_CONFIG_PARAMS	GARDS_BG_CONFIG_PARAMS	RMSMAN
	GARDS_CAT_CRITERIA_TESTS	GARDS_CAT_CRITERIA_TESTS	RMSMAN
	GARDS_CAT_TEMPLATE	GARDS_CAT_TEMPLATE	RMSMAN
	GARDS_CODES	GARDS_CODES	RMSMAN
	GARDS_COMMENTS_DEFS	GARDS_COMMENTS_DEFS	RMSMAN
	GARDS_CSC_MODCOEFF_LIB	GARDS_CSC_MODCOEFF_LIB	RMSMAN
	GARDS_DBROLE_OWNER	GARDS_DBROLE_OWNER	RMSMAN
	GARDS_DETECTORS	GARDS_DETECTORS	RMSMAN
	GARDS_DIST_SAMPLE_QUEUE	GARDS_DIST_SAMPLE_QUEUE	RMSMAN
	GARDS_IRF	GARDS_IRF	RMSMAN
	GARDS_LAB_CATEGORY_DESCRIPTION	GARDS_LAB_CATEGORY_DESCRIPTION	RMSMAN
	GARDS_MDAS2REPORT	GARDS_MDAS2REPORT	RMSMAN
	GARDS_NUCL2QUANTIFY	GARDS_NUCL2QUANTIFY	RMSMAN
	GARDS_NUCL_LIB	GARDS_NUCL_LIB	RMSMAN
	GARDS_NUCL_LINES_LIB	GARDS_NUCL_LINES_LIB	RMSMAN
	GARDS_PERMISSIONS	GARDS_PERMISSIONS	RMSMAN
	GARDS_POC	GARDS_POC	RMSMAN
	GARDS_PROCESSING_ERRORS	GARDS_PROCESSING_ERRORS	RMSMAN
	GARDS_PROC_PARAMS_TEMPLATE	GARDS_PROC_PARAMS_TEMPLATE	RMSMAN
	GARDS_PRODUCT_TYPE	GARDS_PRODUCT_TYPE	RMSMAN
	GARDS_QAT_CONFIG	GARDS_QAT_CONFIG	RMSMAN
	GARDS_QAT_NOTIFY	GARDS_QAT_NOTIFY	RMSMAN
	GARDS_QAT_QUERY_FILTER	GARDS_QAT_QUERY_FILTER	RMSMAN
	GARDS_QCPARAMS	GARDS_QCPARAMS	RMSMAN
	GARDS_QCTARGETS	GARDS_QCTARGETS	RMSMAN
	GARDS_READ_SAMPLE_CAT	GARDS_SAMPLE_CAT	RMSMAN

Schema	Synonym	Table	Table Owner
	GARDS_READ_SAMPLE_STATUS	GARDS_SAMPLE_STATUS	RMSMAN
	GARDS_REFLINE_MASTER	GARDS_REFLINE_MASTER	RMSMAN
	GARDS_RELEVANT_NUCLIDES	GARDS_RELEVANT_NUCLIDES	RMSMAN
	GARDS_ROI_LIB	GARDS_ROI_LIB	RMSMAN
	GARDS_ROLES	GARDS_ROLES	RMSMAN
	GARDS_ROLES_PERMISSIONS	GARDS_ROLES_PERMISSIONS	RMSMAN
	GARDS_SAMPLE_CAT	GARDS_AUTO_SAMPLE_CAT	RMSAUTO
	GARDS_SOH_CODE	GARDS_SOH_CODE	RMSMAN
	GARDS_STADET	GARDS_STADET	RMSMAN
	GARDS_STATIONS	GARDS_STATIONS	RMSMAN
	GARDS_STATIONS_SCHEDULE	GARDS_STATIONS_SCHEDULE	RMSMAN
	GARDS_STATION_ASSIGNMENTS	GARDS_STATION_ASSIGNMENTS	RMSMAN
	GARDS_STATUS_HISTORY	GARDS_STATUS_HISTORY	RMSMAN
	GARDS_UPDATE_PARAMS_TEMPLATE	GARDS_UPDATE_PARAMS_TEMPLATE	RMSMAN
	GARDS_UPDATE_REFLINES	GARDS_UPDATE_REFLINES	RMSMAN
	GARDS_USERENV	GARDS_USERENV	RMSMAN
	GARDS_USERS	GARDS_USERS	RMSMAN
	GARDS_USERS_ROLES	GARDS_USERS_ROLES	RMSMAN
	GARDS_WRITE_SAMPLE_CAT	GARDS_AUTO_SAMPLE_CAT	RMSAUTO
	GARDS_XE_NUCL_LIB	GARDS_XE_NUCL_LIB	RMSMAN
	GARDS_XE_NUCL_LINES_LIB	GARDS_XE_NUCL_LINES_LIB	RMSMAN
	GARDS_XE_PROC_PARAMS_TEMPLATE	GARDS_XE_PROC_PARAMS_TEMPLATE	RMSMAN
	GBEPO	GARDS_B_ENERGY_PAIRS_ORIG	RMSAUTO
	GBGEP	GARDS_BG_EFFICIENCY_PAIRS	RMSAUTO
	GBRP	GARDS_B_RESOLUTION_PAIRS	RMSAUTO
	GBRPO	GARDS_B_RESOLUTION_PAIRS_ORIG	RMSAUTO
	GEPO	GARDS_ENERGY_PAIRS_ORIG	RMSAUTO
	GNLIO	GARDS_NUCL_LINES_IDED_ORIG	RMSAUTO
	GRCO	GARDS_RESOLUTION_CAL_ORIG	RMSAUTO

Schema	Synonym	Table	Table Owner
	GRPO	GARDS_RESOLUTION_PAIRS_ORIG	RMSAUTO
	GSCL	GARDS_SAMPLE_CERT_LINES	RMSAUTO
	GSD	GARDS_SAMPLE_DATA	RMSAUTO
	GSDESC	GARDS_SAMPLE_DESCRIPTION	RMSAUTO
	GSPP	GARDS_SAMPLE_PROC_PARAMS	RMSAUTO
	GSS	GARDS_SAMPLE_STATUS	RMSAUTO
	GSUP	GARDS_SAMPLE_UPDATE_PARAMS	RMSAUTO
	GSXPP	GARDS_SAMPLE_XE_PROC_PARAMS	RMSAUTO
	INTERVAL	GARDS_INTERVAL	RMSAUTO
	LASTID	LASTID	IDCX
	MSGDISC	MSGDISC	IDCX
RMSMAN	FILEPRODUCT	FILEPRODUCT	IDCX
	FPDESCRIPTION	FPDESCRIPTION	IDCX
	GARDS_ALERTS	GARDS_ALERTS	RMSAUTO
	GARDS_BG_DETECTOR_STD_SPECTRA	GARDS_BG_DETECTOR_STD_SPECTRA	RMSAUTO
	GARDS_BG_STD_SPECTRA	GARDS_BG_STD_SPECTRA	RMSAUTO
	GARDS_DATA_LOG	GARDS_DATA_LOG	RMSAUTO
	GARDS_ENVIRONMENT	GARDS_ENVIRONMENT	RMSAUTO
	GARDS_HISTOGRAM	GARDS_HISTOGRAM	RMSAUTO
	GARDS_INTERVAL	GARDS_INTERVAL	RMSAUTO
	GARDS_MET_DATA	GARDS_MET_DATA	RMSAUTO
	GARDS_READ_SAMPLE_CAT	GARDS_SAMPLE_CAT	RMSMAN
	GARDS_READ_SAMPLE_STATUS	GARDS_SAMPLE_STATUS	RMSMAN
	GARDS_RECEIPT_LOG	GARDS_RECEIPT_LOG	RMSAUTO
	GARDS_RLR	GARDS_RLR	RMSAUTO
	GARDS_RLR_CONCLUSIONS	GARDS_RLR_CONCLUSIONS	RMSAUTO
	GARDS_RLR_OBJECTIVE	GARDS_RLR_OBJECTIVE	RMSAUTO
	GARDS_RLR_RATIOS	GARDS_RLR_RATIOS	RMSAUTO
	GARDS_RLR_RESULTS	GARDS_RLR_RESULTS	RMSAUTO
	GARDS_RLR_SSREB	GARDS_RLR_SSREB	RMSAUTO

Schema	Synonym	Table	Table Owner
	GARDS_SAMPLE_AUX	GARDS_SAMPLE_AUX	RMSAUTO
	GARDS_SAMPLE_CERT	GARDS_SAMPLE_CERT	RMSAUTO
	GARDS_SAMPLE_CERT_LINES	GARDS_SAMPLE_CERT_LINES	RMSAUTO
	GARDS_SAMPLE_DESCRIPTION	GARDS_SAMPLE_DESCRIPTION	RMSAUTO
	GARDS_SOH_CHAR_DATA	GARDS_SOH_CHAR_DATA	RMSAUTO
	GARDS_SOH_HEADER	GARDS_SOH_HEADER	RMSAUTO
	GARDS_SOH_NUM_DATA	GARDS_SOH_NUM_DATA	RMSAUTO
	GARDS_SOH_SENSOR_DATA	GARDS_SOH_SENSOR_DATA	RMSAUTO
	GARDS_SPECTRUM	GARDS_SPECTRUM	RMSAUTO
	GARDS_WRITE_SAMPLE_CAT	GARDS_SAMPLE_CAT	RMSMAN
	GBEPO	GARDS_B_ENERGY_PAIRS_ORIG	RMSMAN
	GBGEP	GARDS_BG_EFFICIENCY_PAIRS	RMSMAN
	GBRP	GARDS_B_RESOLUTION_PAIRS	RMSMAN
	GBRPO	GARDS_B_RESOLUTION_PAIRS_ORIG	RMSMAN
	GCCT	GARDS_CAT_CRITERIA_TESTS	RMSMAN
	GNLIO	GARDS_NUCL_LINES_IDED_ORIG	RMSMAN
	GPPT	GARDS_PROC_PARAMS_TEMPLATE	RMSMAN
	GRCO	GARDS_RESOLUTION_CAL_ORIG	RMSMAN
	GRPO	GARDS_RESOLUTION_PAIRS_ORIG	RMSMAN
	GSD	GARDS_SAMPLE_DATA	RMSMAN
	GSPP	GARDS_SAMPLE_PROC_PARAMS	RMSMAN
	GSS	GARDS_SAMPLE_STATUS	RMSMAN
	GSTA	GARDS_STATION_ASSIGNMENTS	RMSMAN
	GSUP	GARDS_SAMPLE_UPDATE_PARAMS	RMSMAN
	GSXPP	GARDS_SAMPLE_XE_PROC_PARAMS	RMSMAN
	GUPT	GARDS_UPDATE_PARAMS_TEMPLATE	RMSMAN

Schema	Synonym	Table	Table Owner
	GXPPT	GARDS_XE_PROC_PARAMS_TEMPLATE	RMSMAN
	LASTID	LASTID	IDCX
	MSGDISC	MSGDISC	IDCX

5.6. Radionuclide Foreign Key Descriptions

Table name	Constraint name	Constrained column	Foreign table
GARDS_AUTO_SAMPLE_CAT	FK_SID_AUTOSAMPCAT	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_CONFIG_PARAMS	FK_BG_CONFIG_PARAMS	detector_id	GARDS_DETECTORS
GARDS_BG_EFFICIENCY_PAIRS	FK_BG_EFFICIENCY_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_ENERGY_CAL	FK_BG_EN_CAL_SID	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_ISOTOPE_CONCS	FK_BG_ISOTOPE_CONCS	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_PROC_PARAMS	FK_BG_PROC_PARAMS	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_PROC_PARAMS_ROI	FK_BG_PROC_PARAMS_ROI	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_QC_RESULT	FK_BG_QC_RESULT	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_ROI_CONCS	FK_BG_ROI_CONCS	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_ROI_COUNTS	FK_BG_ROI_COUNTS	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_STD_SPECTRA	FK_BG_STD_SPECTRA	sample_id	GARDS_SAMPLE_DATA
GARDS_BG_STD_SPECTRA_RESULT	FK_BG_STD_SPECTRA_RESULT	sample_id	GARDS_SAMPLE_DATA
GARDS_B_ENERGY_PAIRS	FK_B_ENERGY_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_B_ENERGY_PAIRS_ORIG	FK_B_ENERGY_PAIRS_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_B_RESOLUTION_PAIRS	FK_B_RESOLUTION_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_B_RESOLUTION_PAIRS_ORIG	FK_B_RESOLUTION_PAIRS_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_CAT_TEMPLATE	FK_DETECTOR	detector_id	GARDS_DETECTORS
GARDS_CAT_TEMPLATE	FK_STATION	station_id	GARDS_STATIONS

Table name	Constraint name	Constrained column	Foreign table
GARDS_COMMENTS	FK_COMMENTS	sample_id	GARDS_SAMPLE_DATA
GARDS_CSC_MODCOEFF_LIB	FK_CSC_MODCFF_LIB	detector_id	GARDS_DETECTORS
GARDS_DIST_SAMPLE_QUEUE	FK_DIST_SAMPLE_QUEUE	sample_id	GARDS_SAMPLE_DATA
GARDS_EFFICIENCY_CAL	FK_EFFICIENCY_CAL	sample_id	GARDS_SAMPLE_DATA
GARDS_EFFICIENCY_PAIRS	FK_EFFICIENCY_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_EFFICIENCY_VGSL_PAIRS	FK_EFFICIENCY_VGSL_PAIRS	detector_id	GARDS_DETECTORS
GARDS_ENERGY_CAL	FK_ENERGY_CAL	sample_id	GARDS_SAMPLE_DATA
GARDS_ENERGY_CAL_COV	FK_ENERGY_CAL_COV	sample_id	GARDS_SAMPLE_DATA
GARDS_ENERGY_CAL_ORIG	FK_ENERGY_CAL_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_ENERGY_PAIRS	FK_ENERGY_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_ENERGY_PAIRS_ORIG	FK_ENERGY_PAIRS_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_ENVIRONMENT	FK_ENVIRONMENT	sample_id	GARDS_SAMPLE_DATA
GARDS_FPE	FK_FPE	sample_id	GARDS_SAMPLE_DATA
GARDS_HISTOGRAM	FK_HISTOGRAM	sample_id	GARDS_SAMPLE_DATA
GARDS_IRF	FK_IRF	detector_id	GARDS_DETECTORS
GARDS_MET_DATA	FK_MET_DATA	station_id	GARDS_STATIONS
GARDS_NOTIFY	FK_NOTIFY_POC	poc_id	GARDS_POC
GARDS_NUCL_IDED	FK_NUCL_IDED	sample_id	GARDS_SAMPLE_DATA
GARDS_NUCL_IDED_ORIG	FK_NUCL_IDED_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_NUCL_LINES_IDED	FK_NUCL_LINES_IDED	sample_id	GARDS_SAMPLE_DATA
GARDS_NUCL_LINES_I	FK_NUCL_LINES_IDED_ORIG	sample_id	GARDS_SAMPLE_DAT

Table name	Constraint name	Constrained column	Foreign table
DED_ORIG			A
GARDS_PEAKS	FK_PEAKS	sample_id	GARDS_SAMPLE_DATA
GARDS_PEAKS_ORIG	FK_PEAKS_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_PROC_PARAMS_TEMPLATE	FK_PPTEMPL_DET	detector_id	GARDS_DETECTORS
GARDS_PROC_PARAMS_TEMPLATE	FK_PPTEMPL_STA	station_id	GARDS_STATIONS
GARDS_PRODUCT	FK_PRODUCT	sample_id	GARDS_SAMPLE_DATA
GARDS_QCHISTORY	FK_QCHISTORY	sample_id	GARDS_SAMPLE_DATA
GARDS_QCPARAMS	FK_QCPARAMS_DET	detector_id	GARDS_DETECTORS
GARDS_QCTARGETS	FK_QCTARGS_DET	detector_id	GARDS_DETECTORS
GARDS_QCTARGETS	FK_QCTARGS_STA	station_id	GARDS_STATIONS
GARDS_QC_RESULTS	FK_QC_RESULTS	sample_id	GARDS_SAMPLE_DATA
GARDS_RESOLUTION_CAL	FK_RESOLUTION_CAL	sample_id	GARDS_SAMPLE_DATA
GARDS_RESOLUTION_CAL_COV	FK_RESOLUTION_CAL_COV	sample_id	GARDS_SAMPLE_DATA
GARDS_RESOLUTION_CAL_ORIG	FK_RESOLUTION_CAL_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_RESOLUTION_PAIRS	FK_RESOLUTION_PAIRS	sample_id	GARDS_SAMPLE_DATA
GARDS_RESOLUTION_PAIRS_ORIG	FK_RESOLUTION_PAIRS_ORIG	sample_id	GARDS_SAMPLE_DATA
GARDS_RLR_CONCLUSIONS	SYS_C0052460	rlr_id	GARDS_RLR
GARDS_RLR_OBJECTIVE	SYS_C0052461	rlr_id	GARDS_RLR
GARDS_RLR_RATIOS	SYS_C0052462	rlr_id	GARDS_RLR
GARDS_RLR_RESULTS	SYS_C0052459	rlr_id	GARDS_RLR
GARDS_RLR_SSREB	SYS_C0054296	rlr_id	GARDS_RLR
GARDS_RLR_SSREB	SYS_C0054297	sample_id	GARDS_SAMPLE_DATA

Table name	Constraint name	Constrained column	Foreign table
GARDS_ROI_CHANNELS	FK_ROI_CHANNELS	sample_id	GARDS_SAMPLE_DATA
GARDS_ROI_CONCS	FK_ROI_CONCS	sample_id	GARDS_SAMPLE_DATA
GARDS_ROI_COUNTS	FK_ROI_COUNTS	sample_id	GARDS_SAMPLE_DATA
GARDS_ROI_LIMITS	FK_ROI_LIMITS	sample_id	GARDS_SAMPLE_DATA
GARDS_ROLES_PERMISSIONS	SYS_C005735	permission_id	GARDS_PERMISSIONS
GARDS_ROLES_PERMISSIONS	SYS_C005738	role_id	GARDS_ROLES
GARDS_SAINT_PROCESS_PARAMS	FK_SAINT_PROC_PARAMS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_AUX	FK_SAMPLE_AUX	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_CAT	FK_SAMP_ID	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_CERT	FK_SAMPLE_CERT	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_CERT_LINES	FK_SAMPLE_CERT_LINES	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_DESCRIPTION	FK_SAMPLE_DESCRIPTION	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_FLAGS	FK_SAMPLE_FLAGS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_PROC_PARAMS	FK_SAMPLE_PROC_PARAMS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_RATIOS	FK_SAMPLE_RATIOS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_STATUS	FK_SAMPLE_STATUS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_UPDATE_PARAMS	FK_SAMPLE_UPDATE_PARAMS	sample_id	GARDS_SAMPLE_DATA
GARDS_SAMPLE_XE_PROC_PARAMS	FK_SAMPLE_XE_PROC_PARAMS	sample_id	GARDS_SAMPLE_DATA
GARDS_SOH_HEADER	FK_SOH_HEADER	station_id	GARDS_STATIONS
GARDS_SOH_NUM_DA	FK_SOH_NUM_DATA_STA	station_id	GARDS_STATIONS

Table name	Constraint name	Constrained column	Foreign table
TA			
GARDS_SPECTRUM	FK_SPECTRUM	sample_id	GARDS_SAMPLE_DATA
GARDS_STADET	FK_STADET_DET	detector_id	GARDS_DETECTORS
GARDS_STADET	FK_STADET_STA	station_id	GARDS_STATIONS
GARDS_STATIONS_SCHEDULE	FK_STA_SCHEDULE_STAID	station_id	GARDS_STATIONS
GARDS_STATION_ASSIGNMENTS	FK_STA_ASSIGN_STAID	station_id	GARDS_STATIONS
GARDS_STATION_ASSIGNMENTS	FK_STA_ASSIGN_USRID	user_id	GARDS_USERS
GARDS_STATUS_HISTORY	FK_STATUS_HISTORY	sample_id	GARDS_SAMPLE_DATA
GARDS_TOTAL_EFFIC	FK_TOTAL_EFFIC	sample_id	GARDS_SAMPLE_DATA
GARDS_UPDATE_PARAMS_TEMPLATE	FK_UPD_PARAMS_TMPL	detector_id	GARDS_DETECTORS
GARDS_UPDATE_REFLINES	FK_UPD_REFLINES_DET	detector_id	GARDS_DETECTORS
GARDS_UPDATE_REFLINES	FK_UPD_REFLINES_STA	station_id	GARDS_STATIONS
GARDS_USERS_ROLES	FK_ROLE_ID	role_id	GARDS_ROLES
GARDS_USERS_ROLES	FK_USER_ID	user_id	GARDS_USERS
GARDS_USER_COMMENTS	FK_USER_COMMENTS	comment_id	GARDS_COMMENTS
GARDS_USER_COMMENTS	FK_USER_COMMENTS_SID	sample_id	GARDS_SAMPLE_DATA
GARDS_XE_PROC_PARAMS_TEMPLATE	XE_PPT_DET	detector_id	GARDS_DETECTORS
GARDS_XE_RESULTS	FK_XE_RESULTS	sample_id	GARDS_SAMPLE_DATA

6. FUNCTIONS, PROCEDURES AND PACKAGES

This section describes PL/SQL functions, procedures and packages that are defined in or used by objects in the SHI and RN parts of the IDC database.

6.1. Functions

Name	Owners	Returns	Arguments			
			Name	Type	In/Out	Default
ACOS	SYS	*number*	X	*number*	IN	
ASIN	SYS	*number*	X	*number*	IN	
ATAN	SYS	*number*	X	*number*	IN	
ATAN2	SYS	*number*	Y	*number*	IN	
			X	*number*	IN	
AZIMUTH	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	
			BACK	*number*	IN	
DEGACOS	SYS	*number*	X	*number*	IN	
DEGASIN	SYS	*number*	X	*number*	IN	
DEGATAN	SYS	*number*	X	*number*	IN	
DEGATAN2	SYS	*number*	Y	*number*	IN	
			X	*number*	IN	
DEG_DISTANCE	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	
DETSTATUS	RMSMAN,RMSAUTO,RMSMAN2	*pl/sql boolean*	DETID	*number*	IN	
KM_DISTANCE	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	

Name	Owners	Returns	Arguments			
NEWSTADET	RMSMAN,RMSAUTO,RMSMAN2	*pl/sql boolean*	STAID	*number*	IN	
			DETID	*number*	IN	
OLDT_NEWH_STATUS	RMSMAN,RMSAUTO	*varchar2*	SAMPLEID	*number*	IN	
XAZIMUTH	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	
			BACK	*number*	IN	
XDEG_DISTANCE	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	
XKM_DISTANCE	SYS	*number*	LAT1	*number*	IN	
			LON1	*number*	IN	
			LAT2	*number*	IN	
			LON2	*number*	IN	

6.2. Procedures

Name	Owners	Arguments			
		Name	**Type**	**In/Out**	**Default**
UPDATECATRECORD	RMSMAN	SID	*number*	IN	
		STAR_ID	*number*	IN	
		NAME	*varchar2*	IN	
		CAT	*varchar2*	IN	
		ACTIVITY	*varchar2*	IN	
		HOLD	*varchar2*	IN	

6.3. Packages

6.3.1. CATQUERY_PACKAGE

Owners	RMSMAN,RMSAUTO

Name	Type	Returns	Arguments			
			Name	Type	In/Out	Default
GET_ANTHRO	Procedure		ACT_P	*number*	IN	
			FISS_P	*number*	IN	
			ANTHRO	*number*	IN	
			START_DTG	*varchar2*	IN	
			STOP_DTG	*varchar2*	IN	
			ST_CODE	*varchar2*	IN	
			REQUEST_ID	*number*	IN	
GET_CAT	Procedure		PARAM1	*varchar2*	IN	
			PARAM2	*varchar2*	IN	
			PARAM3	*varchar2*	IN	
			PARAM4	*varchar2*	IN	
			REQUEST_ID	*number*	IN	
GET_CATOUTPUT	Function	*number*	SIDVALUE	*pl/sql table*	IN/OUT	
			NUM_SAMP	*number*	IN	
			REQUEST_ID	*number*	IN	

6.3.2. FUNCTS

Owners	RMSMAN,RMSAUTO

Name	Type	Returns	Arguments			
			Name	Type	In/Out	Default
MEDIAN	Function	*number*	COU	*number*	IN	
			NUM_TABLE	*pl/sql table*	IN	

6.3.3. NID_CATEGORIZE

Owners	RMSMAN,RMSAUTO

Name	Type	Returns	Arguments			
			Name	Type	In/Out	Default
	Function	*pl/sql*	NUCL_NAME	*varchar2*	IN	

Name	Type	Returns	Arguments			
GETNICDATA		*record*	STAT_ID	*number*	IN	
			DET_ID	*number*	IN	
			DTG_BEGIN	*date*	IN	
			DTG_END	*date*	IN	
			ALPHA	*number*	IN	
			GAMMA	*number*	IN	
			XFORM	*number*	IN	
			TSTAT	*number*	IN	
			OUTDATA	*ref cursor*	IN/OUT	
			(SESSION_ID)	*number*	IN/OUT	
			(DATE_VALUE)	*date*	IN/OUT	
			(NUM_VALUE1)	*number*	IN/OUT	
			(NUM_VALUE2)	*number*	IN/OUT	
			(NUM_VALUE3)	*number*	IN/OUT	
			(NUM_VALUE4)	*number*	IN/OUT	
			(DATESTR)	*varchar2*	IN/OUT	
NIC_INIT	Procedure		NUCL_NAME	*varchar2*	IN	
			STAT_CODE	*varchar2*	IN	
			DET_CODE	*varchar2*	IN	
			DTG_BEGIN	*date*	IN	
			DTG_END	*date*	IN	
			ALPHA	*number*	IN	
			GAMMA	*number*	IN	
			XFORM	*number*	IN	
			TSTAT	*number*	IN	
			COMMENTS	*varchar2*	IN	
UPDATE_NIC_REC	Function	*varchar2*	STAT_ID	*number*	IN	
			NUCL_NAME	*pl/sql table*	IN	
			ACTIV	*pl/sql table*	IN	
			HOLD	*pl/sql table*	IN	

Name	Type	Returns	Arguments			
			NUM_NICS	*number*	IN	

6.3.4. QCPLOTS_PACKAGE

Owners	RMSMAN,RMSAUTO

Name	Type	Returns	Arguments			
			Name	**Type**	**In/Out**	**Default**
GETDECAYAREA	Function	*pl/sql record*	DTID	*number*	IN/OUT	
			START_DATE	*date*	IN	
			END_DATE	*date*	IN	
			REF_ENERGY	*number*	IN	
			OUTDATA	*ref cursor*	IN/OUT	
			(SESSION_ID)	*number*	IN/OUT	
			(DATE_VALUE)	*date*	IN/OUT	
			(NUM_VALUE1)	*number*	IN/OUT	
			(NUM_VALUE2)	*number*	IN/OUT	
			(NUM_VALUE3)	*number*	IN/OUT	
			(NUM_VALUE4)	*number*	IN/OUT	
			(DATESTR)	*varchar2*	IN/OUT	
GETGAINTEST	Function	*pl/sql record*	DTID	*number*	IN/OUT	
			START_DATE	*date*	IN	
			END_DATE	*date*	IN	
			OUTDATA	*ref cursor*	IN/OUT	
			(SESSION_ID)	*number*	IN/OUT	
			(DATE_VALUE)	*date*	IN/OUT	
			(NUM_VALUE1)	*number*	IN/OUT	
			(NUM_VALUE2)	*number*	IN/OUT	
			(NUM_VALUE3)	*number*	IN/OUT	
			(NUM_VALUE4)	*number*	IN/OUT	
			(DATESTR)	*varchar2*	IN/OUT	
GETLOCATIONTEST	Function	*pl/sql record*	DTID	*number*	IN/OUT	
			START_DATE	*date*	IN	

Name	Type	Returns	Arguments			
			END_DATE	*date*	IN	
			OUTDATA	*ref cursor*	IN/OUT	
			(SESSION_ID)	*number*	IN/OUT	
			(DATE_VALUE)	*date*	IN/OUT	
			(NUM_VALUE1)	*number*	IN/OUT	
			(NUM_VALUE2)	*number*	IN/OUT	
			(NUM_VALUE3)	*number*	IN/OUT	
			(NUM_VALUE4)	*number*	IN/OUT	
			(DATESTR)	*varchar2*	IN/OUT	

6.3.5. QC_PACKAGE

Owners	RMSMAN,RMSAUTO

Name	Type	Returns	Arguments			
			Name	**Type**	**In/Out**	**Default**
FIND_COMPARE_MRP_SAMPLE	Function	*number*	SAMPLEID	*number*	IN	
			S_TYPE	*char*	IN	
			D_TYPE	*char*	IN	
			S_QUAL	*varchar2*	IN	
			DET_ID	*number*	IN	
FIND_MRP_SAMPLE	Function	*number*	SAMPLEID	*number*	IN	
			S_TYPE	*char*	IN	
			D_TYPE	*char*	IN	
			S_QUAL	*varchar2*	IN	
			DET_ID	*number*	IN	
GETGAINDATA	Function	*pl/sql record*	STID	*number*	IN	
			DTID	*number*	IN/OUT	
			START_DATE	*date*	IN	
			END_DATE	*date*	IN	
			OUTDATA	*ref cursor*	IN/OUT	
			(SESSION_ID)	*number*	IN/OUT	
			(DATE_VALUE)	*date*	IN/OUT	

Name	Type	Returns	Arguments			
			(NUM_VALUE1)	*number*	IN/OUT	
			(NUM_VALUE2)	*number*	IN/OUT	
			(NUM_VALUE3)	*number*	IN/OUT	
			(NUM_VALUE4)	*number*	IN/OUT	
			(DATESTR)	*varchar2*	IN/OUT	
GET_BLANK	Procedure		IN_SAMPLEID	*number*	IN	
			OUT_SAMPLEID	*number*	OUT	
GET_CLOSEST_SAMPLE	Procedure		IN_SAMPLEID	*number*	IN	
			WINDOW	*number*	IN	
			FLOW	*number*	IN	
			SAMPLETIME	*number*	IN	
			DECAYTIME	*number*	IN	
			COUNTTIME	*number*	IN	
			PB212	*number*	IN	
			OUT_SAMPLEID	*number*	OUT	
GET_COMPARE_MRP_SID	Procedure		SAMPLEID	*number*	IN	
			MRP_SAMPLEID	*number*	OUT	
GET_DETID_AND_MRP_SID	Procedure		SAMPLEID	*number*	IN	
			DET_ID	*number*	IN/OUT	
			MRP_SAMPLEID	*number*	IN/OUT	
GET_PREL	Procedure		IN_SAMPLEID	*number*	IN	
			OUT_SAMPLEID	*number*	OUT	
PERFORM_EFFICIENCY_QC	Function	*number*	SAMPLEID	*number*	IN	
			DET_ID	*number*	IN	
			REF_PEAK	*pl/sql table*	IN	
			NUM	*number*	IN	
			AREA	*pl/sql table*	IN	
			MU_AREA	*pl/sql table*	IN	
			AREA_ADJ	*number*	IN	
			CHI_AREASUM	*number*	IN/OUT	
			AREA_LIM	*number*	IN/OUT	

Name	Type	Returns	Arguments			
			E_TEST	*number*	IN/OUT	
PERFORM_ENERGY_QC	Procedure		SAMPLEID	*number*	IN	
			DET_ID	*number*	IN/OUT	
			GAIN	*number*	IN/OUT	
			DELTA_GAIN	*number*	IN/OUT	
			GCHNG_LIM	*number*	IN/OUT	
			DELTA_LOC	*number*	IN/OUT	
			LCHNG_LIM	*number*	IN/OUT	
			ITEST	*number*	IN/OUT	
PERFORM_RES_AND_EFF_QC	Function	*number*	SAMPLEID	*number*	IN	
			DET_ID	*number*	IN/OUT	
			CHI_WIDTHSUM	*number*	IN/OUT	
			WIDTH_LIM	*number*	IN/OUT	
			CHI_AREASUM	*number*	IN/OUT	
			AREA_LIM	*number*	IN/OUT	
			AREA	*pl/sql table*	IN/OUT	
			WIDTH	*pl/sql table*	IN/OUT	
			PEAK	*pl/sql table*	IN/OUT	
			POS	*number*	IN/OUT	
			TEST	*number*	IN/OUT	
RETURN_ENERGY_AND_LOCATION	Procedure		FLAG	*binary_integer*	IN	
			SAMP_ID	*number*	IN	
			DET_ID	*number*	IN	
			ENERGY	*number*	IN/OUT	
			LOCATION	*number*	IN/OUT	

7. DATABASE DOCUMENTATION CHANGES

7.1. SHI Schema Object Changes

This section shows list of changed tables, views and triggers since 02-12-2008.

Object type	Object name	Change date
TABLE	AMPLITUDE	29-JAN-2009
TABLE	WFDISC	29-JAN-2009
TABLE	CLF	28-JAN-2009
TABLE	STAMAG	07-JAN-2009
TABLE	STAMAG	07-JAN-2009
TABLE	STAMAG	07-JAN-2009
TRIGGER	WFDISC_ENDTIME	12-DEC-2008

7.2. Radionuclide Schema Objects Changes

There are no objects changes as of 02-12-2008.

8. REFERENCES

The following sources supplement or are referenced in this document:

[And90a]
Anderson, J., Farrell, W., Garcia, K., Given, J., and Swanger, H., *CSS Version 3 Database: Schema Reference Manual*, Science Applications International Corporation, 1990.

[Car97]
Carter, J., and Bowman, J. R., *IDC Database Schema*, CMR-97/28, 1997.

[Fli74]
Flinn, E. A., Engdhal, E. R., and Hill, A. R., "Seismic and Geographical Regionalization," *Bulletin of the Seismological Society of America*, Volume 64, No. 3, Part ii, pp. 771-992, 1974.

[Gan79]
Gane, C., and Sarson, T., *Structured Systems Analysis: Tools and Techniques*, Prentice-Hall, Inc., Englewood Cliffs, NJ, 1979.

[IDC3.4.2Rev0.1] *Formats and Protocols for Continuous Data CD-1.0*

[IDC3.4.3Rev0.3] *Formats and Protocols for Continuous Data CD-1.1*

[IDC5.1.1]
Science Applications International Corporation, Pacific-Sierra Research, Inc., *Database Schema (Part 1 and Part 2)*, SAIC-98/3009, PSR-98/TN1127, 1998.

[IDC5.1.1Rev1]
Science Applications International Corporation, Pacific-Sierra Research Corporation, *Database Schema (Parts 1, 2, and 3)*, Revision 1, SAIC-99/3009, PSR-99/TN1142, 1999.

[IDC5.1.1Rev5]
Science Applications International Corporation, Veridian Systems, *Database Schema, (Part 1, Part 2, and Part 3)*, Revision 5, TN2924, October 2002.

[IDC5.1.2]
Science Applications International Corporation, Pacific-Sierra Research Corporation, *Database Tutorial*, SAIC-99/3022, PSR-99/TN1145, 1999.

[IDC5.1.3Rev0.1]
Science Applications International Corporation, Veridian Pacific- Sierra Research, *Configuration of PIDC Databases, Revision 0.1*, SAIC-01/3022, PSR-99/TN1114, 2001.

[IDC7.1.1]
Science Applications International Corporation, *Detection and Feature Extraction (DFX)–Scheme Files*, SAIC-01/3000, 2001.

[IDC7.1.3]
Science Applications International Corporation, *Surface Wave Identification and Measurement*, SAIC-01/3008, 2001.

[IDC7.1.4]
Science Applications International Corporation, *Global Association (GA) Subsystem*, SAIC-01/3009, 2001.

[IDC7.1.5]

Science Applications International Corporation, *Event Location Software*, SAIC-01/3010, 2001.

[IDC7.1.6]
Science Applications International Corporation, *Event Magnitude Software*, SAIC-01/3011, 2001.

[IDC7.1.10Rev3]
Veridian Systems, *Radionuclide Software Design, Revision 3*, TN2927, October 2002.

[IDC7.1.11]
Science Applications International Corporation, *WaveExpert*, SAIC- 00/3029, 2000.

[IDC7.1.12]
Science Applications International Corporation, *Station Processing (StaPro)*, SAIC-00/3013, 2000.

[IDC7.3.1]
Science Applications International Corporation, *Distributed Application Control System (DACS)*, SAIC-01/3001, 2001.

[IDC7.4.1]
Science Applications International Corporation, *Continuous Data Subsystem CD–1.1*, SAIC-01/3012, 2001.

[IDC7.4.2]
Science Applications International Corporation, Pacific-Sierra Research Corporation, *Message Subsystem*, SAIC-98/3003, 1998.

[IDC7.4.3]
Science Applications International Corporation, *Retrieve Subsystem*, SAIC-01/3024, 2001.

[IDC7.4.4]
Science Applications International Corporation, *Subscription Subsystem*, SAIC-98/3001, 1998.

[IDC7.5.1]
Science Applications International Corporation, *Archiving Subsystem*, SAIC-01/3013, 2001.

[IDC/CD Tools/SUG]
CD Tools Software User Guide, 31-Jan-2008, CTBTO, Vienna

[Swa91]
Swanger, H., Given, J., and Anderson, J., *IMS Extensions to the Center Version 3 Database*, Science Applications International Corporation, SAIC-91/1138, 1991.

[Swa93]
Swanger, H., Anderson, J., Sereno, T., Given, J., and Williams, D., *Extensions to the Center Version 3 Database, Revision 1*, Science Applications International Corporation, SAIC-93/1123, 1993.

[WikiOrdinal] http://en.wikipedia.org/wiki/ISO_8601#Ordinal_dates

[WikiJulian] http://en.wikipedia.org/wiki/Julian_day

9. GLOSSARY

2-D	Two-dimensional.
3-C	Three-component.
abundance	RN: Fraction of a decay event that results in the radiation(s) or interest (for example, a gamma line at a specific energy or a beta-gamma coincidence pair). Intensity is sometimes used to mean abundance.
activation products	RN: Nuclides produced from the absorption of a neutron by a nucleus.
activity	RN: Decay rate of a radionuclide; usually expressed in becquerels (disintegrations per second), Bq.
amp	Amplitude.
amplitude	SHI: Zero-to-peak height of a waveform in nanometres.
array	SHI: Collection of sensors distributed over a finite area (usually in a cross or concentric pattern) and referred to as a single station.
arrival	SHI: Signal that has been associated to an event. First, the Global Association (GA) software associates the signal to an event. Later during interactive processing, many arrivals are confirmed and improved by visual inspection
ASCII	American Standard Code for Information Interchange. Standard, unformatted 256-character set of letters and numbers.
attribute	(1) A database column. SHI: (2) Characteristic of an item; specifically, a quantitative measure of a SHI arrival such as azimuth, slowness, period, and amplitude.
authentication signature	Series of bytes that are unique to a set of data and that are used to verify the authenticity of the data.
b	RN: Beta particle.
background	RN: Contribution to a spectrum from naturally occurring radionuclides as well as interactions between radiation and materials in the vicinity of the detector.
baseline	RN: Contribution to a spectrum from the partial energy deposition of a gamma-ray in a detector.
beta particle	RN: Electron that is produced from a nuclear decay. May also refer to other electron radiations, for example, a conversion electron.
beta-gamma coincidence event	RN: Nuclear decay that produces both a gamma ray and a beta particle within a very short time scale. May also refer to other photon-electron coincidence events such as an X-ray with a conversion electron.
blank subtraction	RN: Process of removing counts from a sample spectrum or a region of interest within a sample spectrum originating from the air filter.
BLANKPHD	RN: Blank Pulse Height Data; ASCII data message containing the pulse height data of an unexposed air filter, as well as other information, in an IDC-approved format.
CALIBPHD	RN: Calibration Pulse Height Data; ASCII data message containing the pulse height data of a certified standard source, as well as other information, in an IDC-approved format. The data in a CALIBPHD are used to determine the ECR, EER, and RER.
calibration coefficients	RN: Numbers that define the energy, resolution, and efficiency equations.
centroid	RN: Energy (in keV) or channel number at the centre of a fitted peak.
channel	RN: Energy window (in keV) representing a differential increment of pulse height.

	SHI: Component of motion or distinct stream of data.
cm	Centimetre.
coherent	SHI: Quality of having a fixed phase relationship; as signals from a wavefront detected on numerous seismic or infrasonic array station elements.
concentration	RN: Activity per unit volume of air.
cosmogenic nuclides	RN: Nuclides produced by the interaction of cosmic-rays with matter.
counts	RN: Number of pulses observed within a spectrum channel.
	SHI: Units of digital waveform data.
critical level/limit	RN: Minimum net counts that must be contained in an ROI for nuclide identification (lc).
CSCI	Computer Software Configuration Item.
CSS	Center for Seismic Studies.
CTBT	Comprehensive Nuclear-Test-Ban Treaty (the Treaty).
DB	Database.
dB	Decibel.
defining	SHI: Arrival attribute, such as arrival time, azimuth, or slowness, which is used in calculating the event's location or magnitude.
defining phase	SHI: Associated phase for which features are used in the estimation of the location and origin time of an SHI event.
DETBKPHD	RN: Detector Background Pulse Height Data; ASCII data message containing the pulse height data from a background count, as well as other information, in an IDC- approved format.
detection limit	RN: The smallest amount of activity that can be reliably detected and quantified in a spectrum. This quantity is used to determine the MDC.
ECR	RN: Energy versus Channel Regression; an equation providing the initial detector-specific relationship between channel number and energy. The equation contains calibration coefficients and is estimated from a transmitted calibration dataset.
ECRU	RN: Energy versus Channel Regression Update; an equation providing the final detector-specific relationship between channel number and energy.
EER	RN: Efficiency versus Energy Regression; an equation providing the detector-specific relationship between efficiency and energy.
energy	RN: Usually refers to the measured kinetic energy of radiation quanta deposited in a detector. The unit most appropriate for such measurements is keV.
epoch(al) time	Number of seconds after January 1, 1970 00:00:00.0. Conventionally used to 1-second resolution, but extended in the context of the IDC Database Schema to a resolution of *one millisecond.*
event	RN: Occurrence that displays characteristics indicative of a possible nuclear weapons test.
	SHI: Unique source of seismic, hydroacoustic, or infrasonic wave energy that is limited in both time and space.
EWMA	RN: Exponentially Weighted Moving Average; statistical filter that recursively generates a prediction interval using past observations weighted in an exponential fashion. This filter is useful for determining anomalous radionuclide concentrations for categorization purposes.
f-k	SHI: Frequency versus wavenumber (k) analysis that maps phase power from an array as a function of azimuth and slowness.
FFT	Fast Fourier Transform.
fission (G)	RN: Gases created in a fission event.
fission (P)	RN: Particulates created in a fission event.

FPID	RN: Fission Product Identification.
FTP	File Transfer Protocol; protocol for transferring files between computers.
FULL SPHD	RN: Full Sample Pulse Height Data; ASCII data message containing the pulse height data of a sample acquired for a complete collection interval, as well as other information, in an IDC-approved format.
FWHM	RN: Full Width at Half-Maximum; metric of detector resolution and equivalent to the width of a photopeak (in keV) taken at the peak height equal to half the maximum peak counts.
g	RN: Gamma particle.
g	Gram.
GA	SHI: Global Association application. GA associates SHI phases to events.
gamma	RN: Gamma-ray.
gamma ray	RN: Photon that is produced from a nuclear transition; may also imply other photon radiations, for example, an X-ray.
GARDS	RN: Global Atmospheric Radionuclide Detection System; the network of radionuclide monitoring stations that meet CTBT requirements and transmit radionuclide data to the IDC with coordination by the IDC.
GASBKPHD	RN: Gas Background Pulse Height Data. Data type sent by noble gas monitoring systems that observe a memory effect during sample acquisition due to atoms from the previous sample adsorbed onto the walls of the gas cell. The counts from the memory effect must be subtracted from the sample counts for accurate activity quantification.
GMT	Greenwich Mean Time.
GSETT-3	SHI: Group of Scientific Experts Third Technical Test.
hydroacoustic	SHI: Pertaining to sound in the ocean.
IDC	International Data Centre.
IEEE	Institute for Electrical and Electronic Engineers.
IIR	Infinite Impulse Response (filters also referred to as recursive filters).
IMS	International Monitoring System.
infrasonic	SHI: Pertaining to low-frequency (sub-audible) sound in the atmosphere.
Internet	World-wide network of computers linked by means of the IP protocol.
IP	Internet protocol.
KB	Kilobyte. 1,024 bytes.
keV	RN: kilo electron volts; a metric of kinetic energy.
keyline	RN: Photon with the highest detection probability.
lc	RN: Critical level.
local	SHI: (1) (distance) Source to seismometer separations of a few degrees or less. (2) (event) Recorded at distances where the first P and S waves from shallow events have travelled along direct paths within the crust.
m	(1) Metre(s). (2) Megabyte(s); 1,024 kilobytes. (3) Month(s). (4) Minute(s).
m_b	SHI: Magnitude of a seismic body wave.
mbar	Millibar.
mbmle	SHI: Magnitude of an event based on maximum likelihood estimation using seismic body waves.
mBq	RN: microbecquerels

MDA	RN: Minimum Detectable Activity.
MDC	RN: Minimum Detectable Concentration.
minimum detectable concentration	RN: Activity concentration of a given radionuclide that is indistinguishable from the measurement process noise level.
ML	SHI: Magnitude based on waves measured near the source.
mm	Millimetre.
monitoring system	See IMS and RMS.
mPa	SHI: micropascals
M_s	SHI: Magnitude of seismic surface waves.
Msmle	SHI: Magnitude of an event based on maximum likelihood estimation using surface waves.
multiplet	RN: Spectral region of interest comprised of more than one photopeak.
NA	Not Applicable.
NDC	National Data Centre.
NID	Nuclide Identification.
nm	Nanometre.
non defining	SHI: Arrival attribute, such as arrival time, azimuth, or slowness, which is associated, but not used in calculating the event's location or magnitude.
non defining phase	SHI: Associated phase for which features are not used in the estimating the location and origin time of an SHI event.
NSE	Noise Spectrum Equalization.
nuclide	RN: One of many combinations of nucleons that may comprise an atomic nucleus. Because all nuclides of interest with respect to CTBT compliance verification are radioactive, this term is often used to refer specifically to radionuclides.
Operations Manuals	Treaty-specified, formal documents that describe how to provide data, receive IDC products, access the IDC database, and evaluate the performance of the IDC.
Oracle	Abbreviation for the Oracle Corporation, producers and vendors of the RDBMS Oracle Database, currently used by the IDC.
origin	SHI: Hypothesized time and location of a seismic, hydroacoustic, or infrasonic event. Any event may have many origins. Characteristics such as magnitudes and error estimates may be associated with an origin.
parameter (par) file	ASCII file containing values for parameters of a program. Par files are used to replace command line arguments. The files are formatted as a list of `[token=value]` strings.
peak	RN: Statistically significant increase in counts above a spectrum baseline at an energy associated with a gamma line of a particular radionuclide or other phenomenon.
PHD	RN: Pulse Height Data; a format for spectral data messages. Possible PHD data message types include BLANKPHD, CALIBPHD, DETBKPHD, GASBKPHD, QCPHD, and SAMPLEPHD.
PIDC	The (former) Prototype International Data Center, Arlington, Virginia
polarization	SHI: Form of three-component analysis used to derive azimuth and slowness information from non-array stations.
PREL SPHD	RN: Preliminary Sample Pulse Height Data; ASCII data message containing the pulse height data of a sample acquired for less than a complete collection interval, as well as other information.
primary seismic	SHI: IMS seismic station(s) or data that is (are) part of the detection network.
PS	RN: Peak Search.

QC	Quality Control.
QCPHD	RN: Quality Control Pulse Height Data; ASCII data message containing the pulse height data of a certified source as well as other information. Information in the QCPHD, along with other data, is used to check a detector's state of health.
quefrency	SHI: Time-delay axis with units of seconds for a cepstrum.
R	RN: Radionuclide.
radioactivity	RN: See "activity".
radionuclide	RN: Nuclide that has an unstable nucleus, that is, a radioactive nuclide.
REB	SHI: Reviewed Event Bulletin; the bulletin formed of all SHI events that have passed analyst inspection and quality assurance review.
region of interest	RN: Region of a radionuclide spectrum or histogram that corresponds to a particular radionuclide.
regional	SHI: (1) (distance) Source to seismometer separations between a few degrees and 20 degrees. (2) (event) Recorded at distances where the first P and S waves from shallow events have travelled along paths through the uppermost mantle.
RER	RN: Resolution (versus) Energy Regression; an equation providing the initial detector- specific relationship between resolution and energy. This equation contains calibration coefficients and is interpolated from a transmitted calibration spectrum.
residual	SHI: Difference in time, azimuth, or slowness between a calculated attribute and its corresponding theoretical value.
RLR	RN: Radionuclide Lab Report; report containing sample analysis results from a certified radionuclide laboratory.
RMS	RN: Radionuclide Monitoring System; the part of the IMS that monitors the atmosphere for radionuclides.
RNPS	RN: Radionuclide Network Product Summary; daily report containing a summary of the Radionuclide Network for a three-day period, including the data received, their products, and any relevant nuclides.
ROI	RN: Region of interest.
RRR	RN: Reviewed Radionuclide Report. Electronic file containing the final results of the interactive review of the automated radionuclide processing. It contains sections on sample information, measurement categorization, measured radionuclide quantities, MDCs, radionuclide identification, analyst editing, processing parameters, data quality flags, event screening flags, calibration equations, and field of regard.
sample	Any physical entity counted on a detector.
SAMPLEPHD	RN: Sample Pulse Height Data; ASCII data message containing pulse height data acquired by counting a gas or particulate sample with a detector system.
SHI	SHI: Seismic, hydroacoustic, and infrasonic.
SID	RN: Sample ID; unique alphanumeric string assigned to a sample during the automated processing for identification and accounting purposes.
singlet	RN: Spectrum photopeak consisting of counts from one mono-energetic gamma- ray; photopeak containing counts from multiple photons, but fit as if it is comprised of counts from only one because contributions from the individual radiations cannot be separated, as in a multiplet.
SLSD	SHI: Standard List of Signal Detections.
SOH	State of Health; indicator of a system's operability.
spectrum	RN: Plot of the differential number of pulses (in counts) per differential pulse height (in channels or keV).

	SHI: Plot of the energy contained in waveforms as a function of frequency.
SPHD	RN: Sample Pulse Height Data; ASCII data message type containing the pulse height data of a sample, as well as other information. The two types of SPHDs are full and preliminary.
SQL	Structured Query Language; a language for manipulating data in a relational database.
SSREB	RN: Standard Screened Radionuclide Event Bulletin; bulletin generated by the IDC when fission or activation products are detected at a radionuclide station above normal limits. A SSREB contains information on the possible event, source location, fission products, activation products detected, any isotopic ratios calculated, and any certified laboratory results. New event information can be added to the SSREB as it arrives, therefore, multiple revisions of an SSREB are possible.
STA/LTA	SHI: Short-term average/long-term average ratio.
Sum/Natural	RN: Artificial entries in the nuclide library that enable the automated processing to identify commonly observed sum peaks in a spectrum.
taxonomy	Systematic arrangement; classification.
TCP/IP	Transmission Control Protocol/Internet Protocol.
teleseismic	SHI: (1) (distance) Source to seismometer separations of 20 degrees or more. (2) (event) Recorded at distances where the first P and S waves from shallow events have travelled paths through the mantle/core.
time series	SHI: Time ordered sequence of data samples. Typically a waveform or derived from waveforms, such as a beam.
Treaty	Comprehensive Nuclear-Test-Ban Treaty (CTBT).
Type I Error	RN: Spectral region of interest falsely identified as a peak by the automated processing.
Type II Error	RN: Peak undetected by the automated processing.

10. LIST OF FIGURES

Figure 1: Sample entity relationship....11
Figure 2: Overview of the fundamental SHI tables....13
Figure 3: Event table relationships....14
Figure 4: Detail tables related to arrival....15
Figure 5: Measurement tables relationships....16
Figure 6: Event characterization table relationships....17
Figure 7: Waveform table relationships....18
Figure 8: Referential core table relationships....19
Figure 9: Network table relationships....20
Figure 10: Channel table relationships....21
Figure 11: Relationships of tables used in Automatic Processing....22
Figure 12: Event Screening table relationships....23
Figure 13: Tables Involved in Analyst Review of Time-series Data....24
Figure 14: Map table relationships....25
Figure 15: Tables used by Distributed Processing applications....26
Figure 16: Continuous Data Subsystem Table Relationships....26
Figure 17: Message Subsystem table relationship....27
Figure 18: Subscription Subsystem table relationships....28
Figure 19: Message and Subscription Subsystem support tables....28
Figure 20: Data Archiving Subsystem tables....29
Figure 21: Tables used by System Monitoring applications....30
Figure 22: Tables used for Performance Monitoring....31
Figure 23: Tables used to support the schema....32
Figure 24: Radionuclide equipment....359
Figure 25: Raw sensor data....359
Figure 26: Raw pulse height data....359
Figure 27: Raw particulate calibration data....359
Figure 28: Raw noble gas data....359
Figure 29: Calculated particulate calibration data....359
Figure 30: Calculated particulate detection and characterization data....360
Figure 31: Particulate Parameter and Status Data....361
Figure 32: Calculated noble gas detection data....362
Figure 33: Noble gas parameter and status data....363
Figure 34: RN Analyst comment data....54
Figure 35: Multiple RN analyst review data....364