

GENERAL SPECIFICATION

Geoinformation

GS EP GIN 308

Indexing and storing physical well and field samples

02	05/2016	Addition of the Unique identifier of a field sample (update of Definitions, Rules 11 and 16 and Appendix 9, 10 and 13) and new Managing entity name
01	06/2015	Organisation change – January 2015
00	11/2013	First issue
Rev.	Date	Purpose of the revision

Owning entity: EXPLO/GTS	Managing entity: EXPLO/GTS/IGEO
Other Approving entity(ies):	

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1. Scope

This document defines the procedures for the receipt, packaging, indexing and storage of physical well and field samples, except for hydrocarbons and under pressure fluids.

Its objective is to guarantee that Head offices and affiliates index and store physical samples in the same way "according to the rules of the art", to ensure that such unique data, impossible to acquire a second time, are durably preserved.

This document is intended for Head offices and affiliates ensuring locally the preservation of their samples.

2. Reference documents

The reference documents listed below form an integral part of this General Specification.

External Documents

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published at the effective date of this document.

Reference	Title
ISO 3170	Petroleum liquids - Manual sampling§ 5.5

Total General Specifications

Unless otherwise stipulated, the applicable version of these documents, including relevant appendices and addendums, is the latest revision published.

Reference	Title
GS EP RES 302	Instructions for expedition of fluid samples at atmospheric conditions and in small tank volumes
GS EP GSR 004	Instructions for shipment of well and field samples (core, cuttings, sidewall cores, plugs, outcrops)

3. Definitions

The following definitions serve for the purposes of this document only.

Box number: number of a box out of the total number of boxes (from 1/40 to 40/40, for example).

Containment tank: large sized tank used to store containers holding liquids. The containment tank confines any liquid that may leak out of one (or more) container(s) and thus avoids any pollution.

Database: set of data, generally structured in fields, organized to be used by software with specific applications (management, searching, sorting, mapping, etc.). Structured data groups

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are managed by a Database Management System (DBMS) to facilitate the independent upgrade of data and software.

Data operations manager (DOM): information and data professional who manages the well and field samples records in the well and field samples database.

Field: description zone containing a particular category of data of the same nature, consistent and homogeneous.

"Field Sample Generalities" reference database: central database, located at headquarters, containing all the generalities for Group samples and field campaigns. It is managed by the geoinformation entity responsible for managing the well data.

Manager of the physical storage facility (MPSF): person in charge of managing the core warehouse.

Physical samples: samples of rock, fluid (mud and water) and tubes of gas at atmospheric conditions *.

- Cores (preserved or not).
- Sidewall cores.
- Cuttings (washed or not).
- Plugs.
- Thin section residues.
- Residues of lab analyses (geochemical powders, residues of biostratigraphic washing, for example).
- Field samples (rock samples taken from an outcrop for example, or in a mine).
- Fluid samples (water, mud).
- "Vacutainer" tubes of gas at atmospheric conditions.

* The samples of hydrocarbons and fluids under pressure are not treated in this document.

Reference and master data manager: information and data professional who manages the database. E.g. this person updates the lists of values to be used when entering data in the fields.

Site: location where physical well and field samples are received and stored (e.g. Boussens Core Warehouse, France).

Tool: term referring to the software used to manage the well and field samples database.

USOI (Unique Sample Outcrop Identifier): Unique identifier of a field sample.

UWI: Unique Well Identifier.

Well: structure characterized by a point of entry on the surface and a single, unique trajectory. The different branches (or drains) drilled are considered here to be distinct wells.

"Well header" reference database: central database, located in Head offices, containing all Group "well header" data. It is managed by the geoinformation entity responsible for managing the well data.

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4. Roles and responsibilities

The entity in charge of shipping the samples, in compliance with **GS EP GSR 004**, is responsible for:

- Informing the reception and storage site of the sample shipment.
- Shipping the samples to the site address.
- Transmitting the required documents.

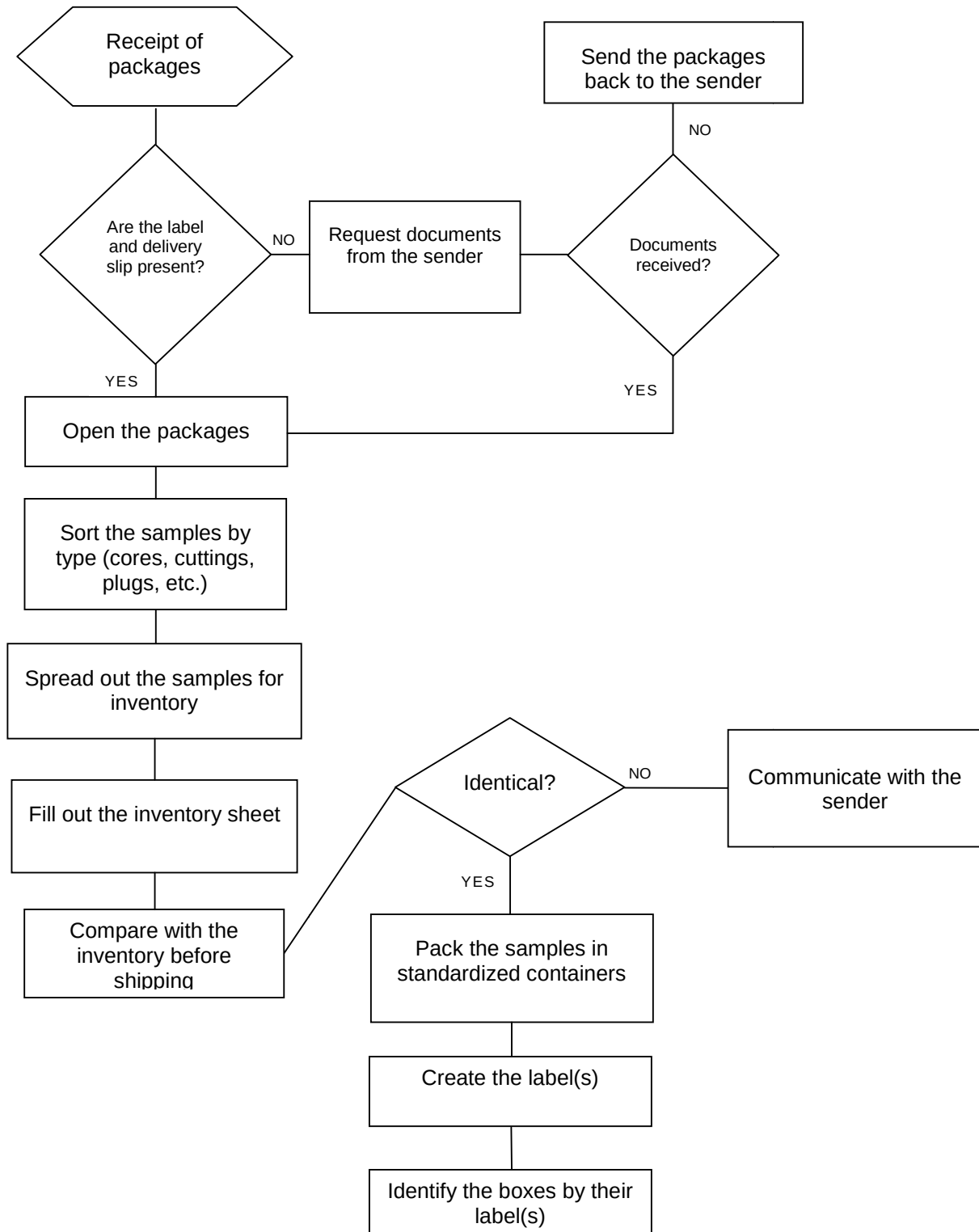
The **MPSF** is responsible for:

- Supervising receipt of the packages.
- Checking the compliance of associated documents and taking any necessary action.
- Enforcing the application of the existing and applicable laws or the internal rules, if they are more binding, regarding the storage.
- Supervising the indexing of samples in the site database.
- Validating the quality control.
- Regularly reporting on these activities.

The **DOM** is responsible for:

- Checking the compliance of data and information received.
- Requesting the unique identifier of a field sample or a well from the entity in charge of the reference database concerned.
- Capturing the indexation attributes.
- Loading the data in the database.
- Controlling the indexing quality.

5. Logic diagram

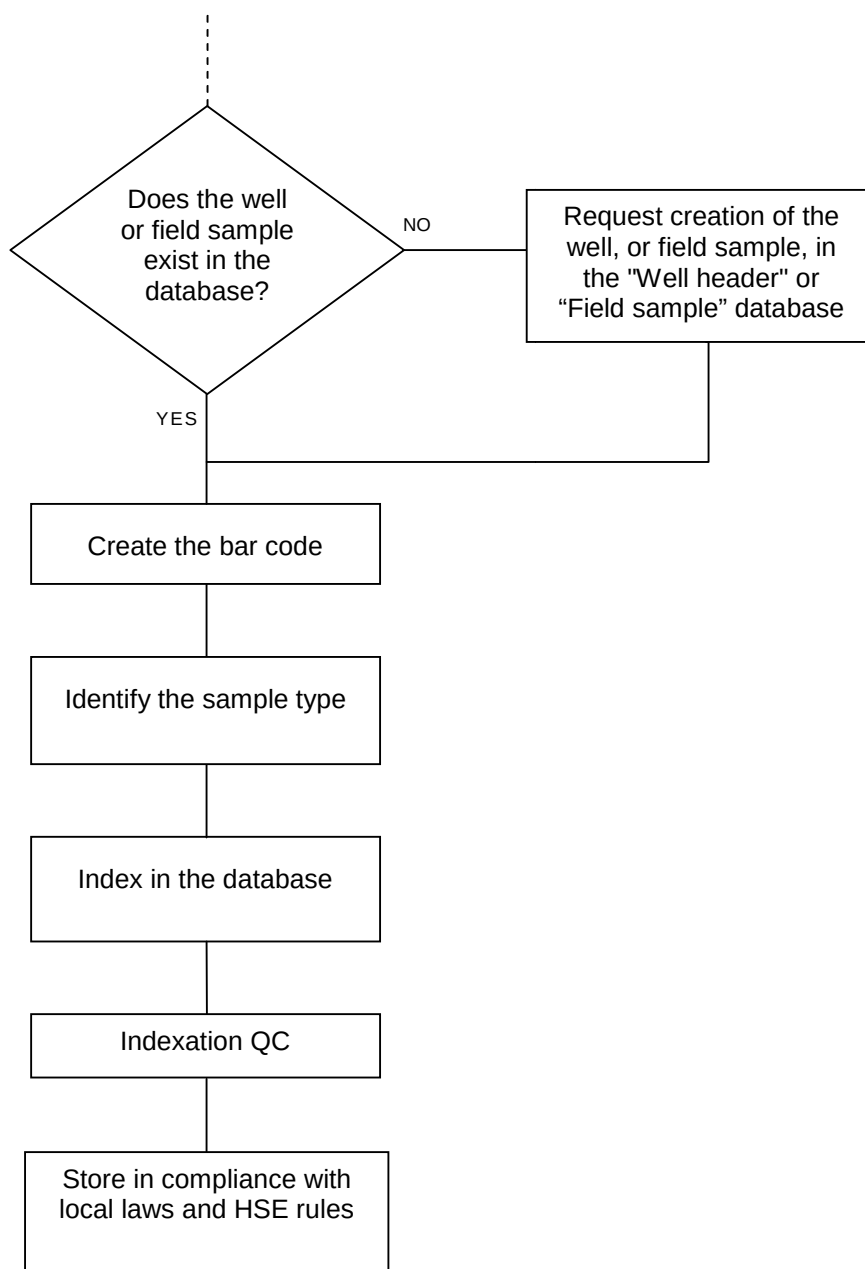


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6. Receipt

{Rule 1:

Packages opening shall be postponed if the required documents are not provided.}

The required documents are described in:

- **GS EP GSR 004** for solid well and field samples.
- **GS EP RES 302** for fluid samples at atmospheric conditions.

The MPSF is responsible for requesting the missing documents from the entity in charge of the shipment. It is accepted practice to return the package to the sender if the required documents are not received within three months.

{Rule 2:

As soon as the shipment is unpacked, the recipient shall fill out an inventory sheet and compare it with the initial inventory prepared by the sender prior to shipment.}

If a difference is noticed between the two inventories (at departure and upon arrival), the recipient of the shipment is required to inform the sender, via the site's MPSF.

An example of an inventory sheet is given in Appendix 1.

7. Packaging

It is recommended to adapt the size and material of the boxes to the type of samples to be processed.

7.1 Packaging of solid well samples

Solid samples are packed in boxes.

Tri-Ply wooden boxes are recommended. However, other materials may be used depending on local regulations.

Six different box sizes are recommended. The measurements (length, width and height) are given in mm:

- Size: 1,050/80/80
- Size: 1,050/110/110
- Size: 1,050/130/130
- Size: 1,050/150/150
- Size: 1,050/170/170
- Size: 1,050/200/140

The Tri-Ply wood is 10 mm thick.

{Rule 3:

Two identical labels shall identify the box content:

- the first label shall be stapled on the outside of the box on the side corresponding to the width, at the base of the sample.
- The second label shall be inserted inside the box.}

An example of the packaging of solid samples is given in Appendix 2.

{Rule 4:

Labels shall include at least the following information:

- Country
- Well
- Sample type
- Core number (in the case of a core)
- Top
- Bottom
- Archiving number + bar code
- Box number}

The different fields to be completed are defined in Appendix 3.

Examples of labels used in Head offices core warehouse is given in Appendix 4.

{Rule 5:

One box shall contain the solid samples from only one well.}

7.2 Packaging of fluid well samples

(Reminder: this does not concern samples of hydrocarbons and fluids under pressure).

{Rule 6:

Fluid well samples shall be kept in standardized containers.}

Refer to [ISO 3170](#) unless the regulations of the country where is the storage site are more demanding

If the containers received do not comply with the standards, it is required to transfer the fluids to standardized ones.

For water or mud samples, it is advisable to use polyethylene bottles of 500 or 1000 ml (the detailed procedure is given in Appendix 5).