

Intercalibration Procedures

Data generators/analysts affiliated with GEOTRACES cruises are required to follow the intercalibration procedures below. More detailed information is available on the [GEOTRACES Cookbook](#).

There are two intercalibration procedures:

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Procedures for GEOTRACES Cruises with Crossover Stations

These actions are required by all data generators/analysts affiliated with GEOTRACES Cruises before data are considered intercalibrated and can be part of GEOTRACES data products. Exceptions to these policies require approval of the GEOTRACES Standards and Intercalibration Committee.

1. Contact corresponding data generator/analyst on the cruise that crosses your cruise track, the crossover station (seek name from Chief Scientist if you do not know the analyst; a list of all cruises and chief scientists is available on the GEOTRACES Data Assembly Centre website, <http://www.bodc.ac.uk/geotraces/>
2. Analysts will exchange data and details of analytical protocols with one another for the crossover station. Exchange of data for other nearby stations would also be helpful.
3. At the same time, data for at least the crossover stations will be sent to the GEOTRACES Data Assembly Centre, geotraces.dac@bodc.ac.uk.
4. Log onto the GEOTRACES DOoR (<https://geotraces-portal.sedoo.fr/pi/>) and download the intercalibration report template which includes a unique dataset ID(s) which will be used to identify and track each dataset through the intercalibration and data submission process
5. This report will guide you through the process and an example template is available here: <http://www.geotraces.org/sic/intercalibrate-data/intercal-report> . Please note that all intercalibration must be submitted using the GEOTRACES DOoR.

The Standards & Intercalibration (S&I) Committee [will review](#) your report and contact you in case they have questions or if revisions are needed. Please respond to all e-mails from the S&I committee so that it is aware of progress with intercalibration.

As soon as your report has been approved by the S&I committee an approval notification e-mail will be sent to you. In this e-mail you will be requested to give permission for your data to be released as part of IDP using GEOTRACES DOoR. Please note you do not have to release your data as part of IDP.

In addition, data generators/analysts are recommended to:

1. Sample at least 3 depths in replicate at 2 different stations, at least for all key parameters (defined in Table 2 of the GEOTRACES Science Plan), and samples from these intercalibration depths must be distributed to at least one other laboratory for TEI determinations. Where two labs share the analyses for a parameter on a cruise, this requirement can be satisfied by alternating samples between labs. Exceptions to this requirement can be made if an alternative method to demonstrate intercalibration can be provided and approved by the Standards and Intercalibration Committee. Replicate sampling is recommended for other parameters as well.

2. The primary analysts for each TEI(s) should arrange for other independent laboratories to conduct the analyses of replicate samples. The database of analysts maintained on the GEOTRACES web site (<http://www.geotraces.org/science/geotraces-researchers-analytical-expertise-database>) provides information about qualified analysts.
3. Examine replicate data taking into account (i) Certified Reference Materials (CRM's) data for the two labs involved (e.g. SAFe and /or GEOTRACES, GoShip protocols for nutrient CRMs) and (ii) the use of isotope double spikes where appropriate.

Procedures for GEOTRACES Cruises **without Crossover Stations**

These actions are required by all data generators/analysts affiliated with GEOTRACES Cruises before data are considered intercalibrated and can be part of GEOTRACES data products. Exceptions to these policies require approval of the GEOTRACES Standards and Intercalibration Committee.

1. Sample at least 3 depths in replicate at 2 different stations, at least for all key parameters (defined in Table 2 of the GEOTRACES Science Plan), and samples from these intercalibration depths must be distributed to at least one other laboratory for TEI determinations. Where two labs share the analyses for a parameter on a cruise, this requirement can be satisfied by alternating samples between labs. Exceptions to this requirement can be made if an alternative method to demonstrate intercalibration can be provided and approved by the Standards and Intercalibration Committee. Replicate sampling is recommended for other parameters as well.
2. The primary analysts for each TEI(s) should arrange for other independent laboratories to conduct the analyses of replicate samples. The database of analysts maintained on the GEOTRACES web site (<http://www.geotraces.org/science/geotraces-researchers-analytical-expertise-database>) provides information about qualified analysts.
3. Examine replicate data taking into account (i) Certified Reference Materials (CRM's) data for the two labs involved (e.g. SAFE and /or GEOTRACES, GoShip protocols for nutrient CRMs) and (ii) the use of isotope double spikes where appropriate.
4. Log onto GEOTRACES DOoR (<https://geotraces-portal.sedoo.fr/pi/>) and download the intercalibration report template which includes a unique dataset ID(s) which will be used to identify and track each dataset through the intercalibration and data submission process
5. This report will guide you through the process and an example template is available here: <http://www.geotraces.org/sic/intercalibrate-data/intercal-report>

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