

Integrated Ocean Drilling Program

Sample, Data, and Obligations

Policy

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CTS Appendix

Integrated Ocean Drilling Program Sample, Data, and Obligations Policy

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1. Policy Overview

This document outlines the policy for distributing Integrated Ocean Drilling Program (IODP), Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) samples and data to research scientists (Science Party members and postmoratorium researchers), educators, museums, and outreach institutions and the obligations that recipients of these samples or data incur.¹

The specific objectives of the IODP policy are to

- Ensure availability of samples and data to Science Party members so they can fulfill the objectives of the drilling project and their responsibilities to IODP;
- Encourage scientific analyses over a wide range of research disciplines by providing samples to the scientific community;
- Ensure that dissemination of the scientific findings of all IODP drilling projects/expeditions are planned so as to gain maximum scientific and public exposure;
- Preserve core material as an archive for future description and observations, nondestructive analyses, and sampling;
- Disseminate “Expedition Research Results” papers published in the *Proceedings of the Integrated Ocean Drilling Program* from drilling project-related research; and
- Support education and outreach related to the drilling program by providing core materials to educators, museums, and outreach institutions.

There are three categories of policy users: (1) Science Party members, (2) postmoratorium researchers, and (3) educators, museums, and outreach institutions. Section 2, “Policy Guidelines,” provides details for these users on how to submit sample requests and the specific reporting obligations that sample and data recipients incur.

2. Policy Guidelines

2.1. Guidelines for Science Party Members

2.1.a. Definition of Science Party

The Science Party includes all invited shipboard and shore-based expedition scientists plus other scientists who have been approved by the Sample Allocation Committee (SAC; see Appendix C for contact information) for working on expedition material during the moratorium period and publishing their research results. By program decision, two or more thematically linked expedition cruises can be designated as a single IODP project with a joint Science Party and a common moratorium period. In this case, expedition results are published in a single *Proceedings of the Integrated Ocean Drilling Program* volume.

2.1.b. Submitting Sample Requests

Science Party members may submit sample requests to IODP prior to the pre-expedition planning meeting; however, sample requests will also be considered during the expedition and within the moratorium period. The IODP Sample Request Form is available at www.iodp.org/access-data/ (see Appendix D.4. for guidelines to estimating sample volumes).

The SAC (see Appendix C for contact information) will review the sample requests, and approval will be based on compatibility with the Sampling Strategy (see Appendix D.1.). The sample requester may choose to appeal any decision by the SAC or the IODP Curator to the Curatorial Advisory Board (CAB; see Appendix C for contact information). If a conflict arises over the allocation of samples during the moratorium period, expedition participants will have priority over those who did not participate in the expedition.

¹ Obligations incurred during ODP will be carried forward into IODP.

2.1.c. Accessing Data

The Science Party may access expedition data online at a password-protected Web site during the moratorium period (see www.iodp.org/access-data/).

2.1.d. Obligation

All Science Party members are obligated to conduct research and publish the results of their work. To fulfill the obligation, papers must be published in a peer-reviewed scientific journal or book that publishes in English, or as a peer-reviewed data report in the *Proceedings of the Integrated Ocean Drilling Program*. To fulfill the obligation, manuscripts must be submitted within 20 months postmoratorium.

Following completion of sample investigations, or in the event that research is discontinued, nondestroyed sample material must be returned maximum 36 month post sample receipt at the investigator's expense to the IODP core repository where the core materials are stored (see Appendix D.5. for sample distribution information).

If Science Party members are unable to fulfill their obligation because appropriate samples or data were not retrieved during the expedition, or because data could not be obtained during post-expedition analyses, a letter of explanation must be submitted to the Platform Curator with a copy to IODP Management International IODP-MI; see Appendix C for contact information). The letter must provide specific reasons for not fulfilling obligations such as lack of conclusive analytical results (quality or quantity), personal reasons or external factors. Pending the situation an extension of the obligation period up to one year can be requested. The request will need to justify the reasons for the extension and document the plan for releasing data obtained from IODP samples within the extension period. The request will be considered by repository curator and, if required, the CAB and IODP-MI. Scientists who do not meet IODP their obligations may be restricted from obtaining future samples and data and from participating in future IODP expeditions.

2.1.d.i. Submitting Manuscripts during the Moratorium Period

Science Party members who wish to submit manuscripts or abstracts for publication before the moratorium period has expired must comply with the following guidelines:

- Receive prior written approval by a majority of the expedition scientists. This approval will be coordinated by the IODP Staff Scientist associated with the expedition. The Staff Scientist will circulate the manuscript among the expedition participants, tabulate the responses, and notify the author of the expedition participants' decision.
- Comply with all written collaborative agreements identified in the expedition sampling strategy (see Appendix D.1.).
- Use the authorship "Expedition ### Scientists" (where ### is the expedition number).
- Include the words "Integrated Ocean Drilling Program" or "IODP" in the abstract.
- Acknowledge IODP using the following wording: "This research used samples and/or data provided by the Integrated Ocean Drilling Program (IODP). Funding for this research was provided by _____."
- Provide the following key words, as appropriate, to the manuscript publisher: "Integrated Ocean Drilling Program," "name of drilling platform," Expedition ##," "expedition title," and/or "Site ###" (where ### is the expedition or site identifier).
- Notify the Editorial Review Board (ERB) of manuscript acceptance and submit complete citation information to IODP-MI (see Appendix C for contact information).

2.1.d.ii. Submitting Manuscripts that Subject Key Findings from the Expedition to the Conditions of a temporary Publication Embargo

When electing, during the moratorium period, to publish the key scientific findings from an expedition in a journal that requires a temporary embargo on publication of IODP reports, news releases, and/or publications, the expedition Staff Scientist on behalf of the Science Party must provide notification to the IODP MI (VP-SP with CC to Director of Communications and Publications Manager) of their

intent before the end of the expedition. The expedition Staff Scientist is responsible for coordinating and completing the notification process including communication to the IO media staff and the entity that prepares the Preliminary Report for publication. IODP-MI approval to postpone publication of the Preliminary Report and expedition news release must be requested by the expedition Staff Scientist no later than two weeks post-expedition. The manuscript must be submitted to a journal with copy to IODP-MI within two months post-expedition. If this deadline is missed, the Preliminary Report and news release will automatically be published without further delay. All of the requirements in 2.1.d.i will apply. Re-submission to the original journal (or submission to a second journal) requires notification to IODP-MI. However, publication of the Preliminary Report and the news release will not be held back in case of submission to a second journal, if this takes place more than two month post-expedition. A status report to IODP-MI is due at six months post-expedition.

2.1.d.iii. Submitting Manuscripts after the Moratorium Period

Science Party members who submit manuscripts for publication after the moratorium period has expired must comply with the following guidelines:

- Comply with all written collaborative agreements identified in the expedition sampling strategy.
- Submit to the Editorial Review Board at the time of the second postcruise meeting the planned titles for all papers that fulfill their IODP obligations and any supplementary publications that they intend to publish.
- Submit manuscripts for publication by 20 months postmoratorium.
- Include the words “Integrated Ocean Drilling Program” or “IODP” in the abstract.
- Acknowledge IODP using the following wording: “This research used samples and/or data provided by the Integrated Ocean Drilling Program (IODP). Funding for this research was provided by _____.”
- Provide the following key words, as appropriate, to the manuscript publisher: “Integrated Ocean Drilling Program,” “name of drilling platform,” Expedition ###,” “expedition title,” and/or “Site ####” (where ### is the expedition or site identifier).
- Notify the Editorial Review Board (ERB) of manuscript acceptance and submit complete citation information to IODP-MI (see Appendix C for contact information).

2.2. Guidelines for Postmoratorium Researchers

2.2.a. Definition of Postmoratorium Researchers

Postmoratorium researchers are researchers who request samples after the moratorium period has ended.

2.2.b. Submitting Sample Requests

Scientists who wish to conduct research on DSDP, ODP, and/or IODP core materials may submit sample requests after the moratorium period has expired. The IODP Sample Request Form is available at www.iodp.org/access-data/ (see Appendix D.4. for guidelines to estimating sample volumes).

2.2.c. Accessing Data

Expedition data are available online (see www.iodp.org/access-data/).

2.2.d. Obligation

Scientists who use core for research (destructive sampling or nondestructive analyses) after the moratorium period are obligated to publish the results of their work. To fulfill the obligation, papers must be published in a peer-reviewed scientific journal or book that publishes in English, or as a peer-reviewed data report either in the open literature or in a relevant issue of Proceedings of the Integrated Ocean Drilling Program. If investigators are unable to fulfill this requirement within 36 months after receipt of samples, a letter of explanation must be submitted to the Repository Curator(s) with a copy to IODP Management International IODP-MI; see Appendix C for contact information). The letter must provide specific reasons for not fulfilling obligations such as lack of

conclusive analytical results (quality or quantity), personal reasons or external factors. Pending the situation an extension of the obligation period up to one year can be requested. The request will need to justify the reasons for the extension and document the plan for releasing data obtained from IODP samples within the extension period. The request will be considered by the repository curator and, if required, the CAB and IODP-MI. Failure to comply with this procedure will automatically require that unused samples and samples requested for non-destructive analysis must be returned to the relevant IODP core repository and may result in future requests for IODP samples or expedition participation being denied. Following completion of sample investigations, or in the event that research is discontinued, non-destroyed sample material must be returned at the investigator's expense to the IODP core repository where the core materials are stored (see Appendix D.5. for sample distribution information).

2.2.d.i. Submitting Manuscripts based on Postmoratorium Sample Requests

Postmoratorium researchers must comply with the following guidelines:

- Submit a manuscript for publication within 36 month after receiving samples.
- Include the words “Integrated Ocean Drilling Program” or “IODP” in the abstract.
- Acknowledge IODP in all publications that result from the data collected from samples received using the following wording: “This research used samples and/or data provided by the Integrated Ocean Drilling Program (IODP). Funding for this research was provided by _____.”
- Provide the following key words, as appropriate, to the manuscript publisher: “Integrated Ocean Drilling Program,” “Ocean Drilling Program,” or “Deep Sea Drilling Program,” “name of drilling platform,” Expedition or Leg ####,” “expedition or leg title,” and/or “Site ####” (where #### is the cruise or site identifier).
- Notify the Repository Curator and copy IODP-MI of manuscript acceptance and submit complete citation information to the Repository Curator (see Appendix C for contact information).

2.2.d.ii. Submitting Manuscripts based on Postmoratorium Data

Postmoratorium researchers who use IODP, ODP, or DSDP data after the moratorium period do not incur obligations to publish their results. However, if they do publish papers based on these data, they are required to comply with the following guidelines:

- Include the words “Integrated Ocean Drilling Program” or “IODP” in the abstract.
- Acknowledge IODP, ODP, and/or DSDP, as appropriate in all publications that result from the data using the following wording: “This research used samples and/or data provided by IODP. Funding for this research was provided by _____.”
- Provide the following key words, as appropriate, to the manuscript publisher: “Integrated Ocean Drilling Program,” “Ocean Drilling Program” or “Deep Sea Drilling Program,” “name of drilling platform,” “Expedition or Leg ####,” “expedition title,” and/or “Site ####” (where #### is the cruise or site identifier).
- Notify IODP-MI of manuscript acceptance and submit complete citation information (see Appendix C for contact information).

2.3. Guidelines for Educators, Museums, and Outreach Institutions

2.3.a. Submitting Requests

After the moratorium period has expired, core materials can be used for the following purposes:

- Viewing and describing for teaching and educational purposes,
- Sampling by educators (if core materials are abundant in the collection, and thus not in demand for research purposes), and
- Public display, such as in museums or at professional meetings.

To request materials, submit a sample request to IODP. The IODP Sample Request Form is available at www.iodp.org/access-data/ (see Appendix D.4. for guidelines to estimating sample volumes).

Upon receipt, an IODP Curator will contact the requestor to discuss the request and identify the most

suitable core materials. For museum loans, an IODP Curator will consult with the CAB for approval.

Requestors are responsible for paying for shipping materials to and from their institutions.

2.3.b. Obligations

Educators, museums, and outreach institutions who receive samples for educational or display purposes incur the following obligations to IODP:

- All recipients are required to submit a report at the conclusion of the loan period (or other time frame designated by the Repository Curator) that documents (a) how the core materials were used, (b) how many students/visitors were impacted, and (c) the activities that were organized related to the loan.
- All public displays of IODP material must properly credit IODP using the following wording: “This project used samples and/or data provided by the Integrated Ocean Drilling Program (IODP).”

Appendix: Definitions and Procedures

Appendix A. Terms and Definitions

A.1. Archive and Working Halves

Cores are split into halves for shipboard analysis to uniquely identify split-core halves for measurements and sampling. The halves are referred to as the “working half” and “archive half.” The entire working half is available for sampling. The concept and definition of an archive half is designed to enhance scientific flexibility and to enable greater access to important material. In certain circumstances the archive is available for sampling.

A.2. Composite Splice

Paleoceanographic cruises typically recover sediment cores from multiple holes cored side by side at a given site using an advanced hydraulic piston corer (APC) and/or an extended core barrel (XCB). A composite stratigraphic depth section is constructed by establishing correlations between adjacent drill holes, using the variations in properties measured on cores by nondestructive sensors. A composite depth table describes the resulting (delta) depth offsets between holes. These offsets represent the difference between the meters below seafloor (mbsf; i.e., cored depth) and the meters composite depth (mcd) values that are derived from these correlations. Another data table describes the unique intervals in specific holes at a given site that have been used to construct the “ideal” section, also known as the “composite splice.” The purpose of a composite splice is to describe the most complete sedimentary section at a given site, without gaps in core recovery (i.e., missing sediment), which then can be used for developing high-resolution sampling strategies and analyzing time series. Scientists often prefer to sample using the composite splice as a guide, rather than to sample down a single hole at a given site, because of gaps in recovery between cores in a single hole.

A.3. Critical Intervals

Critical intervals are lithologic spans of such scientific interest that there is extremely high sampling demand for them. These intervals may vary from thin, discrete horizons to thick units extending over an entire core or more. Examples include, but are not limited to, décollements, sediment-basement contacts, igneous contacts, impact/tektite horizons, gas hydrates, marker ash horizons, scaly fabric, magnetic reversals, and particular biostratigraphic levels. The Sample Allocation Committee (SAC; see Appendix C for contact information) is responsible for anticipating the recovery of critical intervals and for developing a strategy for sampling and/or conserving them. For postmoratorium sampling, the Integrated Ocean Drilling Program (IODP) Curator at the appropriate repository will work with investigators to ensure that previously defined critical intervals are sampled only when necessary.

A.4. Educators, Museums, and Outreach Institutions

Grade school through university educators, museum educators, curators of museum exhibits and collections, and professional conducting outreach related to the program.

A.5. Drilling Project

A single expedition or multiple expeditions that are defined as one project during the expedition scheduling phase.

A.6. Implementing Organization

The organization that provides drilling and support operations for a drilling platform. Three Implementing Organizations (IOs), in Japan, the United States, and Europe, serve as science operators of the riser vessel, riserless vessel, and mission-specific platforms, respectively.

A.7. Moratorium Period

The moratorium period is one year long and begins either (1) after the conclusion of an expedition cruise if the majority of the sampling occurred during the cruise or (2) after the conclusion of the expedition onshore sampling party (onshore science party in case of the mission-specific platform).

During the moratorium period, the only researchers permitted to receive expedition core materials and data are members of the Science Party. After the moratorium period ends, samples are given or loaned to persons whose requests have been approved by an IODP Curator. Project data are also publicly available (www.iodp.org/access-data/).

A.8. Nondestructive Analyses

Requests to perform nondestructive analyses on cores (e.g., descriptions, imaging, X-rays) should be submitted to the IODP Curator at the appropriate repository after the completion of the IODP Sample Request Form (www.iodp.org/access-data/). Investigators who conduct nondestructive analyses incur the same obligations as scientists who request samples.

A.9. Permanent Archive

A “minimum permanent archive” is established for each IODP drill site. Archive core earmarked “permanent” is material that is initially preserved unsampled and is conserved in the core repositories for subsequent nondestructive examination and analysis. In “unique intervals,” this minimum permanent archive consists of at least one half of each core, excluding whole-round samples that require more than the working half (e.g., for interstitial pore water analysis). If so desired, the SAC (see Appendix C for contact information) may choose to designate more, but not less, than this amount as the permanent archive. In “non-unique intervals,” the permanent archive will consist of at least one half of one set of cores that span the entire drilled sequence, again, excluding whole-round samples. The permanent archive is intended for science needs that may arise five years or more after drilling is completed.

In practice, if holes are cored continuously, the minimum permanent archive may consist of one half of each core taken from the deepest hole drilled at a site. As such, the archive halves of cores from additional holes drilled to equal or shallower depths that contain replicate copies of stratigraphic intervals constituting the minimum permanent archive need not be designated as permanent archive, but can be, if so desired by the SAC. If not deemed permanent archive, these cores are “temporary archive.” If a composite splice section is constructed and the sampling demand exceeds the working half, an alternative curatorial strategy may be required to ensure that all samples can be taken from the spliced section. In this case, the permanent archive can be defined from cores that are not part of the splice (e.g., from cores from different holes). Sampling of the permanent archive is feasible five years postcruise if the working and/or temporary archive halves of the core have been depleted.

A.10. Postmoratorium Researchers

Researchers who request samples after the moratorium period has ended.

A.11. *Proceedings of the Integrated Ocean Drilling Program*

An IODP serial publication published by IODP-MI that contains a detailed summary of expedition technical operations and scientific results and related peer-reviewed data reports and synthesis papers that cover post-expedition research.

A “data report” is a short report of useful data that mainly consists of data sets and does not contain interpretation of results.

An expedition “synthesis paper” summarizes in a review-type fashion the findings related to the key goals and themes of the drilling project and links to the broader and global theme(s) addressed. While this is primarily based on the scientific papers and data reports resulting from the expedition, it is not a synopsis of all papers and data reports in all fields of observations. The style should be close to that

of a thematic review paper for the open literature, though obviously tied closely to the actual expedition(s). An expedition could have more than one synthesis paper, if the diversity of science and findings would be best served by that. Likewise, synthesis papers from drilling projects with multiple expeditions, joint scientific party membership, and a common moratorium period would not normally be broken down according to specific expeditions, but would be presented as a single manuscript.

Each *Proceedings* volume will be completed at 36 months post moratorium.

A.12. Science Party

The Science Party includes all invited shipboard and shore-based expedition participants plus scientists who have been approved by the SAC (see Appendix C for contact information) for working on expedition material during the moratorium period and publishing their results.

A.13. Temporary Archive

Cores taken from non-unique intervals that are not part of the “minimum permanent archive” will be considered “temporary archives” unless stipulated otherwise by the SAC in the Sample Strategy. If required for special shore-based analysis, some cores may be left unsplit on the platform and shipped to the designated IODP core repository or laboratory as whole-core sections. If split (the common scenario), the temporary archive may be sampled just as the working halves are when (a) either the working halves have been depleted by sampling or (b) when pristine, undisturbed material is needed for special sampling needs, such as taking U-channels or slab samples.

A.14. Unique and Non-unique Intervals

A cored interval is designated “unique” if it has been recovered only once at a drill site. The most common occurrence of a unique interval is one that results when only one hole is drilled at a site. If the cored interval is recovered from two or more holes, then the interval is considered “non-unique.” A critical exception to this definition occurs when drilling into igneous basement rocks, metamorphic rocks, or metalliferous deposits. Every hole drilled into these lithologies is considered unique because of their inherent lateral heterogeneity. Lithostratigraphic analysis of advanced piston cores from multiple holes drilled at one site may reveal that short sedimentary intervals (generally less than 2 m) are commonly missing between successive cores from any one drill hole, even where nominal recovery approaches 100%. These missing intervals can be ignored when considering whether or not an interval is unique.

A.15. Whole Round

Whole rounds are collected for special analysis (e.g. interstitial water analysis) and pre-defined purposes (e.g. "community" whole round). Intervals of whole rounds depend on the pre-defined purposes of sampling and type of special analyses applied. The Sample Allocation Committee (SAC; see Appendix C for contact information) is responsible for developing a strategy for whole round sampling in the early stage of expedition planning and for including a clear description of the whole round sampling strategy in the IODP Scientific Prospectus.

A.15.1. “Community” Whole Round

“Community” whole rounds are collected in order to preserve an “archive” of unsplit material for future tests for a variety of purposes. Science party members with common research interests decide some intervals of cores to be treated as "Community" whole rounds under agreement with SAC. “Community” Whole Rounds are treated as “special” archives and are made available to science party members after approval of their sample requests by the Sample Allocation Committee (SAC). In the Post-moratorium period, these whole rounds are available to any requester after approval of his/her sample request by the Curatorial Advisory Board (CAB). If necessary, the CAB can seek advice from other experts on specific sample requests.

Appendix B. Roles and Responsibilities

B.1. IODP Curators

There are three Integrated Ocean Drilling Program (IODP) Curators who are responsible for (1) curation and sampling of core during an IODP drilling project and (2) oversight and use of IODP, Ocean Drilling Program (ODP), and Deep Sea Drilling Project (DSDP) core collections that are stored in the IODP repositories (see Appendix C for contact information and repository locations).

B.1.a. Platform Curator

Each Curator serves as the Platform Curator to oversee all curation tasks from the preplanning stage through the arrival of the core after an expedition at the repository where the core material will be stored. The Platform Curator has responsibility to oversee use of the core materials through the end of the moratorium period.

B.1.b. Repository Curator

Each Curator serves as the Repository Curator with responsibility for the preservation of the core once it arrives at the repository where the core material will be stored. The Repository Curator has responsibility to oversee the use of core material after the moratorium period ends.

All Curators maintain records of all distributed samples, both from the platform and from the repositories. Sample records include the names of the recipients, the nature of the proposed research, the volume of samples taken, and the status of the request. This information is available to investigators upon request through the Repository Curator.

B.2. Curatorial Advisory Board

The Curatorial Advisory Board (CAB) is a standing body that consists of two IODP senior managers and three members of the scientific community (selected by the IODP Scientific Technology Panel) who serve overlapping four-year terms. Every effort will be made to ensure that CAB membership represents a variety of scientific disciplines.

The CAB has two main roles:

- Act as an appeals board vested with the authority to make final decisions regarding sample distribution if and when conflicts or differences of opinion arise among any combination of the sample requester, IODP Curator at the repository of interest, and the SAC.
- Review and approve requests to sample the permanent archive and requests for loans of core material for outreach and education.

A person appealing to the CAB may contact any member of the Board directly (see Appendix C for contact information).

B.3. Editorial Review Board

The Editorial Review Board (ERB) is established for every drilling project and comprised of the Co-Chief Scientist(s) for the drilling project and the IODP Staff Scientist assigned to the expedition. These individuals may select external scientists/specialists to serve with them. The need for external ERB members will be determined based on the Co-Chief Scientists' and Staff Scientist's workloads and expertise. An ERB remains active for 36 months postmoratorium (See Appendix C for contact information.)

The ERB has four main roles:

- Coordinate the writing of the drilling project results;
- Monitor all post-drilling project research and associated publication of results;
- Make decisions on issues relating to the publication of research related to the drilling project to fulfill IODP obligations; and
- Monitor obligation fulfillment by the Science Party.

The members of the ERB hold the following specific responsibilities:

	All ERB Members	Staff Scientist	Co-Chief Scientists
Coordinate the writing of the Expedition Reports section of the <i>Proceedings of the Integrated Ocean Drilling Program</i> , attend the first postcruise meeting, and review the Expedition Reports section galleys.	X		
Ensure that all manuscripts published in the “Expedition Research Results” section of the <i>Proceedings of the Integrated Ocean Drilling Program</i> are complete and of reviewable quality before they are sent out for review. Manuscripts that do not meet IODP’s standards will be returned to the author and will not go through the review process unless they are revised to meet IODP standards before the submission deadline.		X	
Collect all proposed publication titles related to the expedition (papers published in the <i>Proceedings of the Integrated Ocean Drilling Program</i> volume and journals or books).	X		
Approve all papers that fulfill IODP obligations.	X		
Approve the final table of contents for the <i>Proceedings of the Integrated Ocean Drilling Program</i> volume.	X		
Check each journal or book manuscript submission, within three months of receipt, for proper citation of site summaries and site chapters and for proper use of data and conclusions from other members of the Science Party.	X		
Implement the peer-review process for data reports and synthesis papers submitted to the <i>Proceedings of the Integrated Ocean Drilling Program</i> as soon as the Staff Scientist approves each one as being of “reviewable quality.”	X		
Write or coordinate a drilling project synthesis paper to be published in the <i>Proceedings of the Integrated Ocean Drilling Program</i> or a journal.			X
Submit synthesis paper by 26 months postmoratorium.			X
Coordinate the peer-review process for synthesis paper if submitted to the <i>Proceedings of the Integrated Ocean Drilling Program</i> .		X	
Document the status of the Science Party members’ actions to fulfill their obligations requirements.	X		
Regularly provide updates to the Expedition-Related Bibliography that is part of each <i>Proceedings</i> volume published by IODP-MI (http://www.iodp.org).	X		

B.4. IODP Management International (IODP-MI)

IODP Management International (IODP-MI) has offices in Washington, D.C. and Sapporo, Japan and is responsible for program-wide science planning, and oversight of engineering development, publications, education and outreach, site survey data management, and core sample repositories for the Integrated Ocean Drilling Program.

The IODP-MI Publications Manager is responsible for monitoring obligation fulfillment by the Science Party.

B.5. Sample Allocation Committee

The Sample Allocation Committee (SAC), which is established for each drilling project, consists of the Co-Chief Scientist(s), IODP Staff Scientist, and Platform Curator. During the drilling project, the Platform Curator designates authority and responsibilities to the drilling project Curatorial

Representative (see Appendix C for contact information).

The SAC establishes a project-specific sampling strategy and makes decisions on project-specific sample requests received before the drilling project, during the drilling project, and during the moratorium period. In the event of an evenly divided vote, the Platform Curator at the repository associated with the expedition will make a decision. The sample requester may choose to appeal the SAC's or Platform Curator's decision to the CAB.

Appendix C. Contact Information

Title	Name	Contact Information
IODP Curator for riserless drilling platform and East Coast Repository (ECR; Columbia University), Gulf Coast Repository (GCR; Texas A&M University), and West Coast Repository (WCR; Scripps Institution of Oceanography)	Dr. John Firth	E-mail: firth@iodp.tamu.edu Phone: 001 979 845 0507 Fax: 001 979 845 1303 Mailing address: Integrated Ocean Drilling Program Texas A&M University 1000 Discovery Drive College Station TX 77845, USA
IODP Curator for mission-specific drilling platforms and Bremen Core Repository (BCR; Bremen University)	Dr. Ursula Röhl	E-mail: uroehl@marum.de Phone: 49 421 218 65560 Fax: 49 421 218 98 65560 Mailing address: ESO Curation Manager Bremen Core Repository (BCR) MARUM building Bremen University Leobener Strasse 28334 Bremen, Germany
IODP Curator for riser drilling platform and Kochi Core Center (KCC; Kochi University)	Dr. Lallan P. Gupta	E-mail: gupta@jamstec.go.jp Phone: 81 88 878 2241 Fax: 81 88 878 2192 Mailing address: Kochi Institute for Core Sample Research, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), 200 Monobe-otsu Nankoku Kochi 783-8502 Japan
Sample Allocation Committee (SAC)	For each drilling project, this committee comprises the Co-Chief Scientist(s), IODP Staff Scientist, and IODP Curator.	Contact information for the Co-Chief Scientist(s) and Staff Scientist of each project can be found in the <i>Scientific Prospectus</i> or the <i>Preliminary Report</i> (http://www.iodp.org). See also IODP Curator contact information.
Curatorial Advisory Board (CAB)	Jamus Collier, IT and Publications Manager IODP-Management International, Inc.	E-mail: jcollier@iodp.org Phone: 81 3 6701 3182 Fax: 81 3 6701 3189 Mailing address: Tokyo University of Marine Science and Technology Office of Liaison and Cooperative Research, 3rd Floor 2-1-6, Etchujima, Koto-ku, 135-8533, Tokyo, Japan
	TBD, IODP-Management International, Inc.	E-mail: Phone: Fax: 81 3 6701 3189 Mailing address: Tokyo University of Marine Science and Technology Office of Liaison and Cooperative Research, 3rd Floor 2-1-6, Etchujima, Koto-ku, 135-8533, Tokyo, Japan

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	Dr. Heinrich Villinger	E-mail: vill@uni-bremen.de Phone: 49 421 218 4509 Fax: 49 421 218 6173 Mailing address: FB Geowissenschaften Universität Bremen Postfach 330 440 D-28334 Bremen, Germany
	Dr. Noritoshi Suzuki	E mail: suzuki.noritoshi@nifty.com Phone: 81-22-217-6623 Fax: 81-22-217-6634 Mailing address: Institute of Geology and Paleontology, Graduate School of Tohoku University, Sendai, Miyagi, 980-8578 Japan.
	Dr. David C. Smith	E-mail: dcsmith@gso.uri.edu Phone: 1 401 874 6172 Fax: 1 401-874-6889 Mailing address: Graduate School of Oceanography, University of Rhode Island, Narragansett, RI 02882, USA
Editorial Review Board (ERB)	For each drilling project, this board comprises the Co-Chief Scientist(s), IODP Staff Scientist, and one external scientist (optional).	Contact information for the Co-Chief Scientist(s) and Staff Scientist of each project can be found in the <i>Scientific Prospectus</i> or the <i>Preliminary Report</i> (http://www.iodp.org).
IODP Management International (IODP)	TBN	Phone: 81 3 6701 3185 Fax: 81 3 6701 3189 Mailing address: Tokyo University of Marine Science and Technology Office of Liaison and Cooperative Research, 3rd Floor 2-1-6, Etchujima, Koto-ku, 135-8533, Tokyo, Japan

Appendix D. Curatorial Procedures

D.1. Sampling Strategy

To ensure the best possible use of the core and distribution of samples, a sampling strategy is developed by the Sample Allocation Committee (SAC) for each drilling project during pre-expedition planning. The strategy will integrate and coordinate the programs for drilling, sampling, and downhole measurement to best meet the drilling project's objectives and the scientific needs of the Science Party. The strategy may evolve during the expedition and the moratorium period.

D.2. Expedition-Specific Sampling Strategy Guidelines

Once a proposal has been scheduled for drilling and the Co-Chief Scientists have been selected, the SAC will write a formal expedition-specific sampling strategy that meets the specific objectives of the expedition and define the minimum permanent archive and any supplements that the SAC deems necessary. The strategy will be published in the Integrated Ocean Drilling Program (IODP) *Scientific Prospectus* series. The Sampling Strategy becomes the basis of the sampling plan used during the drilling project and the moratorium period.

A successful sampling strategy will

- Define the amount of core material available to the Science Party for sampling by deciding if and when more than a minimum permanent archive is needed;
- Anticipate and possibly define limits on the volume and frequency of shipboard sampling for routine analyses, pilot studies, and low-resolution studies;
- Estimate the sampling volume and frequency that is needed to meet the objectives of the expedition, as per scientific subdiscipline and request type;
- Anticipate the recovery of critical intervals and develop a protocol for sampling and/or preserving them;
- Propose where and when sampling will occur;
- Determine special sampling methods and needs (e.g., Pressure Core Sampler, microbiology, whole rounds);
- Consider any special core storage or shipping needs (e.g., plastic wrap, freezing sections); and
- Identify disciplines/personnel needed for shore-based sampling.

The Sampling Strategy should be formatted using the following categories.

- Needs
- Critical intervals
- Sampling timetable
- Permanent archive
- Temporary archive
- General sampling procedures

For examples, review expedition-specific sampling strategies from previous expeditions in the *Scientific Prospectus* series (www.iodp.org/scientificpublications/).

D.3. Sample Request

D.3.1. Procedures for Requesting Samples

Requests for samples should be submitted using the IODP Sample Request Form (www.iodp.org/access-data/). To assist the sample requester a Curator may provide advice and guidance to the requester when considering sample volumes and frequencies (see Appendix D.4.) as well as relevant information about previous sample requests and resultant studies on specific core intervals.

D.3.1.a. Moratorium Period Sampling

During the moratorium period, only members of the drilling project Science Party receive samples.

D.3.1.b. Postmoratorium Period Sampling

After the moratorium period has expired, samples may be provided to any researcher, educator, museum, or outreach institution with the resources to complete a scientific investigation or prepare materials for educational or curatorial purposes.

D.3.2. Sample Request Approval

D.3.2.a. Moratorium Period Sampling

The SAC will supervise moratorium period sampling. After reviewing the sample requests, approval will be based on compatibility with the Sampling Strategy. Sample requests will be approved if a majority of the SAC endorses the requests. In cases where a sample request is considered incompatible, the SAC may (1) recommend modifications to the request, (2) modify the Sampling Strategy, or (3) reject the request if the other options are inappropriate. In the event of an evenly divided vote, the Platform Curator will make a decision. The sample requester may choose to appeal any decision to the CAB. If a conflict arises over the allocation of samples during the moratorium period, expedition participants have priority over other scientists in the Science Party.

D.3.2.b. Postmoratorium Period Sampling

The Repository Curator and the CAB supervise postmoratorium sampling. The Repository Curator will evaluate postmoratorium sample requests for completeness and adherence to the provisions in this policy.

When considering a sample request, the Repository Curator will ascertain whether the requested material is available in the working half or the temporary archive half of the core (see Appendix A.1. for definitions). If the material is unavailable, the Repository Curator will consult with the requester to determine if the range of the requested interval(s) or the sample spacing within the interval(s) can be modified. If the request cannot be modified because of scientific requirements, a request to sample the permanent archive will be considered.

Approval of sample requests will be based on the availability of material and the length of time it will take the investigator to complete the proposed project. Typical studies will take two to three years, but a study of longer duration will be considered under certain circumstances. If a sample requester disagrees with the Repository Curator's final decision, the sample requester may choose to appeal any decision to the CAB.

All requests to sample permanent archive material will be reviewed by the CAB after preliminary review by the Curator. The CAB will evaluate the request based on its scientific merit and on the extent to which the working half is depleted. If necessary, the CAB may also consult with members of the original SAC who established the permanent archive being considered for sampling. The CAB will strive to maintain a representative continuous section of core material for archival purposes whenever possible.

D.4. Typical Sample Volumes

The following volumes are guidelines, not limits:

Sample type	Recommended volume
Thin section billets	10 cm ³ up to 50 cm ³ for large-grained plutonic rocks
Alkenone (U _{K37})	5 cm ³
X-ray diffraction	5 cm ³
X-ray fluorescence	20 cm ³ (sediments), 20–50 cm ³ (igneous/sulfides—varies depending on grain size and homogeneity of rock)
Carbonate	2 cm ³
Paleomagnetism	7-cm ³ cubes, 12-cm ³ minicores, 600-cm ³ U-channels
Moisture and density	10–20 cm ³
Grain size	10–20 cm ³ , depending upon coarseness
Planktonic foraminifers	10 cm ³
Benthic foraminifers	10–20 cm ³
Nannofossils	2 cm ³
Diatoms	5–10 cm ³
Radiolarians	10 cm ³
Palynology	10–15 cm ³
Organic samples	20 cm ³
Interstitial porewaters	whole rounds 5–20 cm long, based on water content
Inorganic geochemistry	10 cm ³
Organic geochemistry	10 cm ³
Sedimentology	10–20 cm ³
Slabs (for laminae studies)	25–50 cm ³ , depending on slab length
Slabs (large grained plutonics)	50–100 cm ³ , often shared by scientists for multiple analyses
Stable isotopes (C, O)	10–20 cm ³

D.5. Sample Distribution

Sample requests are processed differently depending upon whether they are shipboard, moratorium, or postmoratorium. Shipboard and moratorium sampling steps are outlined in Appendix D.3. and Appendix D.4. Postmoratorium Sample Requests are processed in order of approval. This approximates the order of submission and receipt of requests, however the review and approval process may cause certain requests to be delayed for various reasons, e.g., lack of available material causing a discussion and revision of which cores to be sampled. In addition, after approval, other factors may cause requests to be processed out of order, e.g., a request for thousands of samples may take several weeks of labor to complete, whereas requests for small numbers of samples may take only hours. When different sized requests are pending at the same time at a repository, small requests may be completed before or during the work on a large request, so that they are not all held up by the large request. Requests that are tied to visits to the repository by the requester are dependant upon the schedule of that visit. Requests for material from more than one repository are processed separately at each repository following the procedures and exceptions above. Most requests of small to moderate size and complexity may be expected to be processed within a month.

Appendix to the IODP Sample, Data, and Obligations policy.

IODP Community Thin Sections Procedures for Borrowing, Tracking, and Returning Them.

Thin sections made during DSDP, ODP, and now IODP drilling cruises (on the *DV JOIDES Resolution*, on the *DV Chikyu*, or during an Onshore Science Party of MSP Expeditions) are the property of IODP, for long term use by the science community, because they are the reference thin sections for lithologic/petrologic data gathered by expedition scientists, stored in IODP science databases, and published in the Expedition Reports (*IODP Proceedings, Initial Reports*). They are termed hereafter as 'community thin sections (CTSs)', to establish their crucial difference from personal thin sections made by scientists using personally requested samples. The responsibility of safekeeping, safe transport, inventory control, long term preservation, and lending of the CTSs rest with the IODP Curators and Repository Staff in Bremen (BCR), Texas (GCR) and Kochi (KCC).

Since DSDP, CTSs made during cruises have incurred many losses, resulting in very large gaps in the overall collection¹. To minimize future loss of this highly valuable reference material and so that the wider scientific community may have greater access to it, the IODP Curators and Repository Superintendents have agreed upon the following procedures.

Primary Conditions for Use of CTSs

CTSs, being the property of IODP, may only be loaned to requesters, with a signed loan agreement containing a predetermined loan duration of no longer than 1 year, after which they must be returned to the appropriate IODP repository. If a requester possesses CTSs from previous requests beyond their approved loan duration, he/she cannot receive additional CTSs or other IODP samples until they return the overdue CTSs to the appropriate repository. Exceptions may be considered for cases with valid scientific justification from the requester. Once CTSs have been returned to their repository, they may be requested for use by anyone, including the previous requester, for a new approved loan duration.

Moratorium Follow-up Requests for CTSs

Requests during an expedition for further Moratorium-period onshore analyses of the expedition's CTSs must contain a specified list of the CTSs to be sent to each scientist, with a predetermined loan duration for each scientist to complete their analyses. This list and loan duration, constituting a loan agreement, must be submitted to the Expedition SAC for approval. If the CTSs are made aboard the *DV JOIDES Resolution* or the *DV Chikyu*, the CTSs along with the distribution list/loan agreement will be shipped to the IODP repository in charge of the expedition's cores and CTSs. In rare cases where the *DV Chikyu* offloads small shipments of materials each month during an extended multi-month drilling project, the Kochi IODP Curator might consider making an exception to the shipping procedure. CTSs made at the University of Bremen, as part of the MSP Onshore Science Party, will already have such CTSs housed in the BCR for future distribution.

- ⤴ Under no circumstances may expedition scientists be given CTSs to hand-carry to their laboratory, to avoid the risk of loss or damage during travel, including delays or problems with customs and import controls, lost or mishandled baggage by air carriers, or having them stolen along with other luggage.
- Shipments made by the IO's using their experienced shipping staff ensure the CTSs will arrive safely at the repository. If a core shipment will only take 1-2 weeks to arrive at its designated repository, then the CTS collections will be sent with the core shipment. If the core shipment will take several weeks or more to arrive at the designated repository, then the thin sections will be sent separately by air freight, using the IO's experienced shipping staff to ensure they arrive quickly and safely at the repository.
- ⤴ A first post-expedition action item for the receiving repository will be to distribute the CTSs using typical 1-2 day air freight to the designated scientists, along with copies of the distribution list/loan agreement, containing the approved loan duration for each scientist. The repository staff will also contact each scientist before shipping to ensure they or their representative will be at their work address to receive the CTSs.
- ⤴ Under no circumstance may scientists forward CTSs directly to another scientist. Instead, they must return CTSs to the repository at the end of their approved loan duration, for inventory and for checking on the state of the CTSs (e.g., broken, complete, etc.). The repository will be responsible for quickly forwarding CTSs to other scientists.
- ⤴ As with regular sample requests for core samples, formal requests for borrowing expedition CTSs may be either added to a pre-existing sample request, or, if more appropriate, a new request should be submitted if it involves several people wanting to continue moratorium analyses on the same set of CTSs in a coordinated sharing schedule.

Post-Moratorium Requests for CTSs

- ⤴ Requests for CTSs submitted after the moratorium will be reviewed for approval by the appropriate IODP Curator or repository staff.
- ⤴ Depending on the number of CTSs requested (> 15 nos.) by one person at any time,

the number of approved CTSs first sent to the requester may only be a portion (e.g., from 25-50%) of the total approved. Return of the first portion of approved CTSs to the repository will result in the shipment of the subsequent portion or portions of the CTSs to the requester. This procedure for requests of large numbers of CTSs will help ensure that they will get returned at the end of the research project. Requests for small numbers of CTSs (e.g., <10-15) may be filled with one shipment of all CTSs. The disposition of CTSs for each request will be up to the responsible Curator and repository staff to decide on a case by case basis.

John Firth, IODP Curator: riserless drilling platform and Gulf Coast Repository (GCR)

Ursula Röhl, IODP Curator: mission-specific drilling platforms and Bremen Core Repository (BCR)

Lallan Gupta, IODP Curator: riser drilling platform and Kochi Core Center (KCC)

1 The reasons for this are manifold: the primary misconception of many scientists who receive these is that they are considered to be their own personal samples, similar to their other personal core samples. From this standpoint, many scientists have forgotten agreements and promises to return them after a year or longer. Some may have shared the thin sections with graduate students and other colleagues, and the collections got dispersed without traceable records. Repeated attempts by curatorial staff, in DSDP, ODP, and now IODP to track down and collect outstanding community thin sections have resulted in very little success. Scientists either do not know where the thin sections are, claim to be unable to send them back, or even do not reply. A very few scientists have decided to not return community thin sections that they acknowledge they have, because they say they may have future need of them for research or teaching.