

Feedback on the Joint Proposal submitted by Germany, Belgium and China during the first part of the 30<sup>th</sup> Session of the ISA Council, March 2025

Submitted on behalf of Germany, Belgium, and China

27 June 2025

This list pertains to the Virtual Meeting of the Intersessional Working Group on Test Mining, co-organized by Germany, Belgium and China on 18 June 2025. Prior to the meeting and, again, after the meeting all participating parties had been invited to provide written feedback to the joint proposal. This list collates the feedback received by the co-hosts email until C.O.B. 27 June 2025. Submissions are listed in order of the date of their receipt. Most submissions were provided as separate documents which are attached to this email.

1. Comments by Kris van Nijen, DEME Group, received 4 June 2025

The definition of mandatory Test Mining cannot be confined to a fully integrated test, when Pilot Mining is mandatory. Under the proposed scenario, contractors need to perform an integrated Test & Pilot mine under exploration and exploitation.

As such we propose a new definition of Test Mining:

*“Test Mining means (a) the in situ use and testing of recovery systems and equipment and the component parts of a mining system, including seafloor collectors, riser systems and equipment and discharge systems and equipment, and (b) the use and testing of a fully integrated and functional mining system including collection systems and water discharge systems.”*

[Combination of Test Mining definition and Testing of mining components from [ISBA/25/LTC/6/Rev.3](#)]

2. Comments by China Minmetals Corporation on Test Mining and Pilot Mining (see attached document: 20250609 Comments from China Minmetals Corporation on Test Mining and Pilot Mining.pdf)
3. Comments by BPC (see attached document: 20250609 General Comments of BPC on the Provisions for Test.pdf)
4. Comments by Japan (see attached document: 20250610 Comments on the joint proposal\_Japan\_Jun2025.pdf)
5. Comments by COMRA (see attached document: 20250610 COMRA comments on Test Mining and Pilot Mining.docx)
6. Comment and proposal by the Advisory Committee on Protection of the Sea (ACOPS) (see attached documents: 20250625 ACOPS Comment IWG Test Mining 25-06-2025.pdf)

and  
ACOPS-DR48ter.pdf)

7. Proposal made by France: 20250626 Regulation 48 ter\_FR proposal  
(see attached document: 20250626 Regulation 48 ter\_FR proposal.docx)
8. Comments by the UK  
(see attached document: 20250627 UK comments - IWG Test Mining webinar.docx)

## **Comments from China Minmetals Corporation on Test Mining and Pilot Mining**

China Minmetals Corporation (CMC) maintains that the Exploitation Regulations should establish provisions for test mining and pilot mining. Specifically, full-system test mining should be conducted prior to applying for an exploitation contract, while pilot mining should be undertaken after the contractor signs the exploitation contract with the International Seabed Authority (ISA) and before commencing commercial production. Detailed comments are as follows:

1. Full-system test mining—including the collection system, lifting system, and dewatering system—must be conducted before applying for an exploitation contract. This comprehensive testing constitutes a necessary and sufficient condition for the application. The scale of test mining should be substantial enough to validate the environmental impact of the entire mining system, but not excessively large.
2. Pilot mining—conducted after the contractor executes an exploitation contract with the ISA but before commercial production—should reach 60% of the designed production scale. After sustained operation over a defined period, the contractor must submit operational results, particularly environmental impact data, to the ISA to obtain final approval for commercial production.
3. Both test mining and pilot mining operations must comply with all relevant environmental requirements stipulated in the Exploitation Regulations.
4. It is recommended that the development of environmental thresholds be integrated with the implementation of test mining and pilot mining activities to establish scientifically sound and reasonable thresholds.

# **General Comments of BPC on the Provisions for Test Mining and Pilot Mining**

Submitted by BPC

June 9, 2025

## **1. Necessity of Setting Two Stages: Test Mining and Pilot Mining**

Regarding the provisions for test mining and pilot mining, Beijing Pioneer Hi-Tech Development Co., Ltd. (BPC) deems it is necessary to establish two experimental stages: test mining and pilot mining.

Under the current regulatory framework of the International Seabed Authority (ISA), the threshold for submitting the plan of work for exploitation is too low. According to the *Regulations on Polymetallic Nodule Exploration*, test mining is non-mandatory during the exploration phase, and contractors may opt not to conduct it. The Legal and Technical Commission (LTC), in its *Recommendations to Guide Contractors in Assessing the Possible Environmental Impacts of Exploration Activities for Marine Minerals in the Area* (ISBA/25/LTC/6/Rev.), defines “Test Mining” as “the use and testing of a fully integrated and functional mining system including collection systems and water discharge systems.” It is important to note that LTC’s recommendations are not legally binding.

In the current Consolidated Text of the Exploitation Regulations

(ISBA/30/C/CRP.1), Article 48 ter allows contractors to apply for an exploitation contract and commence commercial production after conducting test mining before submitting the plan of work for exploitation. Under Article 48 ter Alt, contractors can apply for an exploitation contract without test mining, and after obtaining the contract and conducting pilot mining, they may proceed to commercial production.

The low threshold for contractors to transition to the exploitation phase under the current draft regulations may lead to situations where contractors obtain exploitation contracts without undergoing test mining or only conducting small-scale test mining. Applicants who obtain exploitation contracts through low thresholds may lack the willingness or the corresponding financial and technical capabilities for commercial mining, and may instead use the contracts as a means to raise funds or transfer mining rights for profit.

Therefore, the BPC supports the recent joint proposal by China, Germany, and Belgium on test mining and pilot mining, which establishes two stages—test mining and pilot mining—to raise the threshold for commercial exploitation. This would screen out contractors with genuine willingness, financial strength, and technical capabilities, promote the research and development of more environmentally friendly and higher-capacity technologies, balance deep-sea resource exploitation with

environmental protection, guide orderly competition and management, and facilitate the responsible and sustainable utilization of resources in the “Area”.

## **2. Flexible Exemption Provisions Based on the Two-Stage Framework**

While setting the two-stage threshold for test mining and pilot mining, considering that the primary objectives of these stages are to verify technical reliability and assess environmental impacts, there may be practical scenarios where identical or similar technical solutions are adopted. Therefore, if an applicant for a plan of work for exploitation uses internationally mature mining technology (e.g., technology already reviewed and approved by the ISA) and such technology has already undergone test mining to verify its technical reliability and environmental impacts, test mining may be waived. However, the applicant shall submit relevant research results as part of the application and provide sufficient evidence demonstrating that these results are adequate to exempt test mining.

For the wording of the exemption provisions, reference can be made to Paragraph 4 of Article 48 ter in the Consolidated Text (ISBA/30/C/CRP.1): “Test Mining does not have to be undertaken if the necessary information has been provided through other Test Mining

undertaken by the Applicant, Contractor, by other contractors, or in the context of another approved Plan of Work for Exploration or Exploitation. Where the Applicant or Contractor relies on such information it shall compile the information in its Test Mining report and explain why this information is sufficient evidence for not undertaking Test Mining.”

In conclusion, BPC supports the establishment of the two-stage framework for test mining and pilot mining, while also advocating for exemption provisions for the test mining stage to ensure flexibility in the practical application of these provisions.

**Beijing Pioneer Hi-Tech Development Co., Ltd.**

**June 9, 2025**

June 2025

### **Comments from Japan on the Joint Proposal by Germany, Belgium, and China**

Japan would like to thank Germany, Belgium and China for all their efforts in the Joint Proposal and coordinating the Intersessional Working Group on Test Mining.

#### **Comments:**

Japan welcomes the Joint Proposal as constructive and intends to consider it positively. However, we believe that the following points need to be improved.

- Japan believes that it is important to accurately assess the environmental impact prior to commercial production, and considers the Pilot Mining to be highly significant as it will enable the environmental impact to be assessed close to commercial production levels.
- We also agree that an EIA and the Test Mining Report for the EIA. On the other hand, it is difficult to confirm a detailed environmental impact assessment solely through the Pilot Mining, and it should be verified through the Pilot Mining.
- Japan believes that sustainable deep-sea mining development is required under the ISA. Therefore, while we agree that it is necessary to give sufficient consideration to the environment in the development process, we also believe that overly restrictive barriers to entry should not be imposed on Contractors.
- From this perspective, while we agree with the implementation of an EIA for the PoW and the associated the Test Mining Report, considering matters related to the Enterprise and cooperation between Contractors, it should be noted that applicant is expected to utilize existing technologies held by other Contractors or so. In case where the test mining has already been conducted by other Contractors and proven technologies are being utilized, the applicant should be exempt from conducting its own test mining. Of course, the Test Mining Reports required for the PoW should be based on the test mining conducted by any party.
- Furthermore, if the Test Mining is conducted in the same sea area and on the same scale as the Pilot Mining, should the Pilot Mining be exempted?



## **COMRA comments on Test Mining and Pilot Mining**

There is a growing consensus that environmental protection and mineral exploitation should be pursued in a coordinated manner. A key challenge in exploitation of international seabed mineral resources, however, is the lack of sufficient environmental knowledge. The International Seabed Authority (ISA) is formulating a series of standards and guidelines and has established an Environmental Thresholds Informal Working Group. However, due to limited practical experience, obtaining reliable and evidence-based outcomes remains a challenge. We should promote some pioneer contractors to make valuable practical experience and collect data for assessing relevant environmental impacts. We believe that the joint proposals on test mining/pilot mining put forward by Germany, Belgium, and China could, to a certain extent, provide solutions to the current environmental and technical challenges in the regulation negotiation.

1. Completing full-integrated test mining including underwater collection, lifting, and surface gathering as well as collecting environmental data during the exploration phase could verify the feasibility of mining technologies and better understand environmental impacts and risks. These technological preparation are highly necessary for applying for exploitation contracts. However, excessively high requirements should not be set for the scale and duration of mining systems.

2. Before commencing commercial mining, contractors could collect cumulative environmental impact data, verify production capacity and economic feasibility by conducting pilot mining. This will ensure that mining comply with environmental requirements and minimize the environmental impact to the greatest extent, meanwhile effectively reducing commercial investment risks.

We believe that the existing tripartite joint text is proposed based on the actual conditions of Contractors and takes into account environmental protection requirements, making it an effective attempt to resolve the current dilemma in the regulation negotiation.

## Intersessional Working Group on Test Mining: Virtual Meeting of 18 June 2025

### Comment by the Advisory Committee on Protection of the Sea (ACOPS)

25 June 2025

#### Introduction

During Part I of the 30<sup>th</sup> Session of the ISA Council in March 2025, the delegations of Germany, Belgium and China submitted a Joint Proposal on Test Mining/Pilot Mining, including on Draft Regulation 48 ter (Alt.2) (hereinafter ‘Joint Proposal’).

As announced during the side event and in Council, the Joint Proposal was presented and further discussed in a virtual meeting of the Intersessional Working Group on Test Mining (hereinafter ‘IWG/TM’) on 18 June 2025 9:00 – 10:30 a.m. CEST. The co-hosting countries of the IWG/TM, Germany, Belgium and China, extended their invitation to all State Parties, observers and contractors to attend this virtual meeting.

The Advisory Committee on Protection of the Sea (ACOPS; [www.acops.org.uk](http://www.acops.org.uk)) attended the aforesaid virtual meeting on 18 June. ACOPS appreciates the invitation extended by the IWG/TM co-hosts to participate in the meeting and to comment on the Joint Proposal and on questions arising in that meeting.

The following comment by ACOPS addresses one of those questions.

#### Comment

The question raised in the virtual meeting sought further information about the legal modalities of also addressing Test Mining, currently governed by the Exploration Regulations, in the Exploitation Regulations.

ACOPS thought it might be helpful to the IWG/TM to recall that this question also arose during the discussion of what was then Draft Regulation 48 ter on Test Mining (hereinafter: DR 48 ter) in Part II of the 29<sup>th</sup> Session of the ISA Council in July 2024. Of particular concern then was whether the Exploration Regulations and their ancillary Recommendations, Standards and Guidelines (RSG), would need to be amended, a concern that continues.

On 18 July 2024 ACOPS submitted to the ISA Secretariat a proposal based on its intervention in plenary, **wherein ACOPS offered an amendment to then DR 48 ter to avoid reopening the Exploration Regulations (and their RSG) if Test Mining is also addressed in the Exploitation Regulations.** The ACOPS proposal is available on the ISA website at: <https://www.isa.org.jm/wp-content/uploads/2024/07/ACOPS-DR48ter.pdf>.

The ACOPS proposal can easily be adjusted to fit into the current Joint Proposal: for example, as a separate paragraph after the current paragraph 1 in the Joint Proposal, under Draft Regulation 48 ter Alt.2 as set out therein.

ACOPS stands ready to discuss its proposal, and hopes it will be of use to the Parties. Thank you for the opportunity to participate in and comment on the work of the IWG/TM.

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**TEMPLATE FOR SUBMISSION OF TEXTUAL PROPOSALS DURING THE 29<sup>TH</sup> SESSION:  
COUNCIL - PART II**

*Please fill out one form for each textual proposal which your delegation(s) wish(es) to amend, add or delete and send to [council@isa.org.jm](mailto:council@isa.org.jm).*

1. Name(s) of Delegation(s) making the proposal:

**ADVISORY COMMITTEE ON PROTECTION OF THE SEA (ACOPS)**

2. Please indicate the relevant provision to which the textual proposal refers.

**DRAFT REGULATION 48 ter**

3. Kindly provide the proposed amendments to the regulation or standard or guideline in the text box below, using the “track changes” function in Microsoft Word. Please only reproduce the parts of the text that are being amended or deleted.

*Proposed additional text to be placed either after the last sentence of DR 48 ter 3, currently ending with: “.... Article 145 of the Convention.”, or as a new numbered paragraph:*

The Exploration Regulations/Standards/Guidelines/Recommendations on Test Mining are hereby amended as set out below and in the SGR. These amendments supersede and replace the relevant Exploration RSGR on test mining. In the event of any inconsistency between the two sets of RSGR on Test Mining, the Exploitation RSGR shall prevail.  
.... provide Exploration Test Mining amendments here ....

4. Please indicate the rationale for the proposal. [150-word limit]

UNCLOS Annex III/17(2)(b)(ii) envisages that test mining may occur during exploration. Test mining is briefly addressed in the Exploration Regulations/Standards/Guidelines/Recommendations (RSGR). Nothing in UNCLOS precludes test mining during exploitation and its regulation in the Exploitation RSGR.

If the Exploration RSGR require revision for test mining during exploration, this can be done through the Exploitation Regulations, with further details as appropriate in the Exploitation SGR. The Exploration RSGR need not be reopened.

## Regulation 48 ter Alt2

1. Unless otherwise provided, nothing in this Regulation shall exempt the Applicant or Contractor, as the case may be, from conducting Test Mining before the submission of a initial Plan of Work for Exploitation
2. Subject to this Regulation and the applicable Standard, a Contractor shall conduct “Pilot Mining” before starting any Commercial Production under an Exploitation Contract and in the case of a Material Change, in accordance with paragraph 8. Information gathered through Pilot Mining shall be compiled in a Pilot Mining Report in accordance with the applicable Standard and taking into consideration the Guidelines.
3. Pilot Mining is conducted by a Contractor in its preparation for commencement of Commercial Production, and to assist the Commission in its evaluation of the Feasibility Study.
4. The purpose of the Pilot Mining is to validate that the proposed mining equipment is commercially and technically appropriate and the effects of the activity, in particular with regard to the Protection of the environment, operates as described in the Environmental Impact Statement/Plan of Work.
5. Pilot Mining requires a prior approval by the Commission and Council and shall be carried out with reasonable regard for other activities in the Marine Environment, in accordance with Articles 87 and 147 of the Convention, and in accordance with the applicable Standard and taking into consideration the Guidelines, in particular to ensure effective protection for the marine environment from harmful effects in accordance with Article 145 of the Convention.
6. The ~~A~~-validation monitoring systems as required under Regulation 50 shall be established and made operational by the Contractor and by the independent organism, in line with the Environmental Management and Monitoring Plan, in order to monitor whether the requirements of the Plan of Work are complied with. In case of non-compliance, Regulation 52 will apply.
7. Any gains from Mineral resources which have been collected during Pilot Mining shall be paid to the Environmental Compensation Fund mechanism for the sharing of benefits to be established by the Authority.
8. If a Material Change has been determined in accordance with Regulation 25 and/or 57 (2), the ~~Council shall determine whether and on which aspects any additional Pilot Mining may have to be undertaken based on the recommendations of the Commission~~

~~in order to provide sufficient information to satisfy the requirements of paragraph 32 above. In this case, paragraphs 2 and 4 above apply~~

~~Contractor shall supply a revised Plan of Work and a potential revision of the accompanying plans in accordance with Regulation 7. The [Secretary-General]/[Contractor] shall conduct a consultation process on the revised Plan of Work, with all States and Stakeholders in accordance with Regulation 93 bis and 93 ter.~~

9. After the Pilot Mining, the Contractor shall submit to the Commission a Pilot Mining Report. The Pilot Mining Report shall provide information on the findings from the Pilot Mining, in accordance with the Standards and taking into consideration the Guidelines. On this basis, the Contractor shall accordingly update its Environmental Plans. The Pilot Mining Report and the updated Environmental Impact Statement Plans shall mutatis mutandis be subject to Regulation 11 and provide the Commission with required information to review for its assessment in accordance with the provisions of regulations 12 to 16 the findings in light of the Environmental Impact Statement/Plan of Work. The Commission shall, without undue delay, review the findings of the Pilot Mining Report study and the updated Environmental Plans and make appropriate recommendations to the Council.

10. The Council shall, without undue delay, consider the findings of the Pilot Mining Report study and the updated Environmental Impact Statement Plans based on the recommendation of the Commission and in accordance with the procedure set out in Regulation 16 in light of the Environmental Impact Statement/Plan of Work based on the recommendation of the Commission. If the findings of the Pilot Mining and the updated Environmental Impact Statement and Environmental Management and Monitoring Plans are in accordance with the criteria set out in Regulation 13, Environmental Impact Statement/Plan of Work and the requirements for any modifications under Regulation 57 are met, the Council shall make an affirmative decision and notify the Contractor through the Secretary-General. Thereafter, the Contractor may commence Commercial Production in accordance with the Exploitation Contract.

11. The provisions under regulations 12 to 16 shall apply mutatis mutandis to paragraphs 68 to 810 in this Regulation.

12. Pilot Mining shall not equate to Commercial Production as defined under Regulation 27 and in the Schedule.

#### **FR rationale :**

Regulation 48ter para 2: We believe it would be useful to precise the order in which Pilot Mining may occur: 1) Before any commercial production and 2) During the course of an Exploitation Contract when a Material Change in equipment and technology occurs. We therefore suggest an addition in para 1 : “and in the case of a Material Change, in accordance with paragraph 8”

Regulation 48ter para 6 : We agree with the German delegation's proposal for regulation 50 (Environmental Management and Monitoring Plan), i.e. the requirement for an independent monitoring programme. It would be advisable to refer in regulation

48 ter to the principle of independent monitoring of the environmental monitoring system during the pilot mining phase. The monitoring system should be in place and operational before the pilot mining phase begins.

Regulation 48ter para 8 :

We do not support Regulation 48ter para 8. As currently drafted, if a ‘material change’ occurs, the Council determines whether an additional mining pilot should be carried out. However, according to the glossary, ‘Material Change’ means a change that affects the very basis of the Work Plan approved by the Council; in the event of a ‘Material Change’, we believe that the entire process must be repeated: revised Plan of Work, new stakeholder consultation, new review and potentially new Pilot Mining.

## **UK comments following the Virtual meeting of the Intersessional Working Group on Test Mining (18 June 2025)**

We are grateful for the work of Germany, Belgium and China in putting forward the Joint Proposal on Test Mining/Pilot Mining, and for hosting the webinar ahead of July Council.

We found the webinar by the proponents helpful, and we wanted to follow up with our questions in writing – many of which we raised during the webinar – as it was mentioned that the proposal will be further refined. The queries are as follows:

1. We have read Germany's report on Test Mining in the Area<sup>1</sup> and wanted to know which elements within that report are translated into this proposal. We mentioned during the webinar that a written rationale to accompany the proposal would be valuable, and some indication of which elements of the report apply would also be useful to know.
2. It would be helpful to understand what distinction the proponents see between the scale of Test Mining versus Pilot Mining.
3. Our understanding of the proposal is that it requires Test Mining to be undertaken at the Exploration phase, ahead of an application for a Plan of Work. We would like to know the proponents' views on any legal or environmental risks that they have considered of requiring fully integrated Test Mining under an Exploration contract.
4. We would be keen to understand more on how the proponents see the development of a Standard for Test Mining, and whether that would apply to the Exploration or Exploitation Regulations, or both (Footnote 1).
5. We suggest that Paragraph 10 of DR48 ter alt.2 needs to also describe the process that would be undertaken if Council does *not* find the Pilot Mining Report and the updated Environmental Plans sufficient.
6. Have the proponents considered a two-stage contract (i.e. a pre-production contract for Pilot Mining under the Exploitation Regulations), prior to the application of a Plan of Work for Commercial Production?

As a reminder, and for your consideration, we described at March Council that in our view a full ramp-up of different scales of testing of mining systems needs to be completed prior to commercial production commencing, and as such we are considering the Joint Proposal in light of this position.

In our view, mining systems testing should comprise:

- (1) component testing (which is currently provided for in the Exploration Regulations),
- (2) full system testing (as per DR48 ter) which will require a standalone test mining contract before a Plan of Work is approved, then
- (3) full scale testing after a Plan of Work is approved (which we consider overlaps with the 'feasibility study' in DR25, and the process described in DR48 ter alt).

We are of the view that once commercial production is permitted to start there should be a 4th stage – validation monitoring, to confirm whether the predicted outcomes of the Plan of Work are as expected, much of which is provided for in the Environmental and Monitoring Plan and annual reporting requirements.

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<sup>1</sup> [Test mining in the Area: Legal, regulatory, environmental governance and scientific perspectives](#)