




# ISA Contract for Exploration Public Information Template

	Type of resource: Polymetallic Nodules
	Name of Contractor: Marawa Research and Exploration Ltd.
	Contract Start: January 19, 2015
Sponsoring State: Republic of Nauru	Contract End: January 19, 2030
	Location: 3 Areas in the Clarion-Clipperton Zone of the Pacific Ocean

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## Introduction

The information contained in this ISA Contract for Exploration – Public Information Template is made available to the public in response to the request by the Council of the ISA to make contracts publicly available, subject to restrictions on confidential information, industrial secrets and proprietary data.

The content of the present template is in accordance with the Regulations on Prospecting and Exploration for [Polymetallic Nodules in the Area] [ISBA/19/C/17] (the “Regulations”).

## 1. Contract Information

Annex III of the Regulations.

<b>Type of resource</b>	Polymetallic Nodules
<b>Name of Contractor</b>	Marawa Research and Exploration Ltd.
<b>Contract Start</b>	January 19, 2015
<b>Contract End</b>	January 19, 2030
<b>Location</b>	3 Areas in the Clarion-Clipperton Zone of the Pacific Ocean
<b>Contract Area (km<sup>2</sup>)</b>	74,990



## 2. Coordinates and Illustrative Chart of the Exploration Area

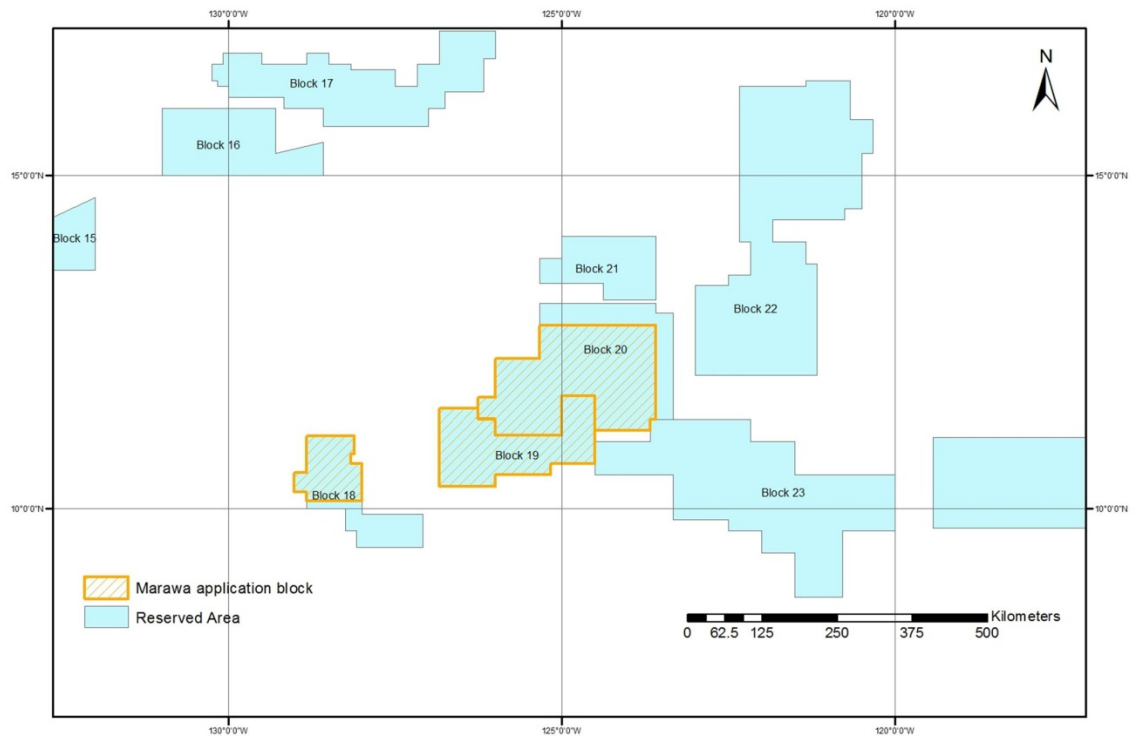
Schedule 1 of Annex III of the Regulations.

Exploration area located between

<i>Longitude West (decimal degrees)</i>	<i>Latitude North (decimal degrees)</i>
128.117	10.8135
128.167	10.8135
128.167	10.6667
128	10.6667
128	10.1088
128.833	10.1088
128.833	10.25
129.01	10.25
129.01	10.5387
128.833	10.5387
128.833	11.0833
128.117	11.0833
126.25	11.5
126.25	11.3333
126	11.3333
126	11.1
125	11.1
125	11.6833
124.5	11.6833
124.5	10.6667
125.167	10.6667
125.167	10.5
126	10.5
126	10.3333
126.833	10.3333
126.833	11.5
126	11.6667
126	12.25
125.333	12.25
125.333	12.75
123.583	12.75
123.583	11.3333



<i>Longitude West (decimal degrees)</i>	<i>Latitude North (decimal degrees)</i>
123.667	11.3333
123.667	11.1667
124.5	11.1667
124.5	11.6833
125	11.6833
125	11.1
126	11.1
126	11.3422
126.25	11.3422
126.25	11.6667



### 3. Plan of Work (approved by Council)

Summary of Plan of Work for Exploration including the Programme of Activities for the first and/or the current 5-year period (Regulation 18).

#### **PROGRAMME OF ACTIVITIES FOR 2020 - 2024**

The proposed programme of activities and estimated schedule below is to be considered indicative and subject to change. The scale, composition and timing of the proposed programme of activities for the second five-year period will depend upon, amongst other things, economic, technical and commercial circumstances. The programme will be reviewed periodically and changes in the programme required by the Contractor will be made depending upon such circumstances as well as the results of the work. Marawa will inform the Secretariat and Commission of any changes to its proposed work programme through its annual reports and will make itself available to discuss the changes and the rationale should either the Secretariat or Commission require further rationale for the changes.

#### **2020 – AU\$1 MILLION**

**Analyse and Report on Results From 2019 Cruise to the Marawa Area**



Polymetallic nodule samples were collected from the Marawa Area during the November - December 2019 cruise. To ensure a full chemical characterisation, the nodule samples will be analysed for:

- Moisture determination at 105 degrees c
- LOI determination
- Major elements by fusion XRF
- Minor and trace elements by fusion ICP – MS analysis
- Specific deleterious elements by Mixed acid digest
- Specific deleterious elements by trace level ICP – MS analysis

Geotechnical studies will also be carried out on box core samples collected from the Marawa Area. The laboratory program will likely include the following tests:

- Soil classification and description;
- Moisture content and unit weight / bulk density measurements;
- Miniature vane (MV) tests on undisturbed and remolded specimens;
- Atterberg limits (liquid limits and plastic limits);
- Hydrometer;
- Carbonate content (gasometric method); and
- Organic content.

### **Refine the Geological Model and Marawa Scoping Study Based Upon the Results of the 2019 Cruise**

Once the results of the 2019 cruise have been analysed, the data will be used to update the Marawa Area Geological Model.

In turn, the updated Geological Model will be used to inform an updated Scoping Study for the Marawa Area. The Scoping Study will provide an economic assessment of:

- (i) offshore harvesting;
- (ii) nodule transportation; and
- (iii) treatment of nodules at an onshore mineral processing facility.

### **Engineering Studies**

This work will focus on the design and fabrication of a test harvester for polymetallic nodule mining.

### **Onshore Metallurgical Studies**

This work will involve developing a mass and energy balance model for the following purposes:

- A repository of all process design information;
- Preparation for piloting and a useful tool during piloting;
- Rapid process scenario evaluation (e.g. small scale, different products);
- Rapid assessment of assumptions and changes on process, e.g. emissions, product specs, etc...;



- Required for Prefeasibility Engineering.

### **2021 – AU\$2 MILLION**

#### **Exploration Cruise to the Marawa Area (Geological)**

Subject to the results of the updated Geological Model and Scoping Study, the Contractor plans to carry out further geological work to identify and select first generation mine sites where nodule distribution, abundance and metal content meet selected cut-off grades, the dimensions of the nodule field are sufficiently large, and the seafloor topography, morphology and sediment properties are suitable for mining.

To achieve this goal the exploration work will be aimed at carrying out acoustic survey, nodule sampling and geotechnical studies, particularly with the aim of acquiring more detailed information of a selected mine site, including acquiring additional detailed high-resolution bathymetric data.

The higher resolution data will be required to confirm operational suitability, particularly regarding defining small scale topographic features and confirming appropriate geological substrate required for effective collection operations.

With respect to geological sampling, this will be done using box core samplers to collect nodule abundance and composition data and confirm the nature of domains defined by the optical traverses and the MBES and side scan surveys and to increase confidence in the Marawa Area.

It is proposed to survey areas using a suitable AUV supported sensor package. The survey strategy would be to survey high-nodule abundance potential target extents with several grid-lines of sonar and camera first. This box coring, possibly in conjunction with ground-truthing, will be used to rank the most favourable target areas in terms of nodule-occurrence and operational seafloor conditions. The best target would then be surveyed for MBES data. This would be further processed and interpreted at sea to determine if there are any significant topographic features that would render parts of the selected site unsuitable for collector testing. Based on this outcome additional target areas may need to be surveyed to increase the amount of suitable ground ahead of collector testing.

Data collected from this work is anticipated to include:

- High resolution MBES data (bathymetry and Backscatter data);
- Side Scan Sonar imagery;
- Photographic imagery of the seafloor; and
- Sub-bottom profiler data (if required).

Deliverables from this work are anticipated to be:



- Identification of enough suitable ground for a Collector Test (significant nodule distribution identified and mapped, plus detailed topographic mapping to identify areas conducive to Collector System design constraints);
- Provision of sufficient geological and geotechnical detail to ensure future sampling and Collector Test activities recovery efficiencies can be measured, and that sampling and mining test programmes are appropriately designed;
- Provide appropriate seafloor maps to assist with selection of suitable environmental monitoring sites; and
- Identification and surveying of two, smaller environmental baseline reference zones.

Initially bathymetric traverses are planned to be completed across identified areas. These will be used to plan follow-up low altitude traverses with combined optical and side scan acquisition to confirm nodule abundances and determine that there are not obvious topographic features which would render the areas unsuitable.

Low altitude optical mapping and side scan traverses of the seafloor in potential preservation reference zones are planned to be completed to confirm similarity to the Seafloor Polymetallic Nodule Collector Test Study Area and to select sub-areas of for detailed bathymetric and sidescan surveying. These low-altitude traverses will also require precursor bathymetric traverses for mission planning purposes.

In Parallel with the survey scope box core sampling will be completed. This work is planned to be completed around AUV operations. The current assumption is that a box core deployment will take a cycle time of 4 hours allowing 4 to 5 samples to be collected a day.

The box core samples will be treated to maximise the amount of data that can be extracted from the samples, with high resolution imagery collected of the seafloor from each box core deployment. Additional instruments are anticipated to be deployed during box core deployment to collect water column data (CTD) during the transit of the core from the surface to the seafloor and back.

It is also planned to acquire 0.25 meter<sup>2</sup> box cores (0.50 x 0.50 x 0.60m). The geotechnical scope of work would take place in a single mobilization at the conclusion of the AUV program.

### **Engineering Studies**

Engineering work will continue with the aim of finalising the design of an integrated polymetallic nodule mining system. The programme will be aimed at designing the most efficient mining system applicable to the polymetallic nodule deposit in Marawa's licence area.

### **2022 – AU\$1 MILLION**

#### **Analyse and Report on Results From 2021 Cruise to the Marawa Area**





The results of the 2021 cruise will be analysed, with the aim of updating the Geological Model and then feeding into a Preliminary Economic Assessment.

### **Produce A Preliminary Economic Assessment**

To refine estimated project capital and operating costs as well as revenues, a Preliminary Economic Assessment (PEA) will be carried out. This will provide a conceptual study of the potential viability of the Marawa Area resource, and indicate whether the Marawa Area is potentially technically and economically viable, taking in to account the preliminary nature of some aspects of project planning and design, and the untested nature of the specific mining production systems at a commercial scale, economic viability has not yet been demonstrated.

### **Onshore Metallurgical Studies**

A Pilot campaign is proposed, with the following objectives:

- Demonstration of the process to provide confidence for all stakeholders;
- Generate data and information for equipment design and regulators;
- Produce products for assessment by the market; and
- Identify scope requiring further work before commercialization (if required).

The scale of the pilot campaign will be determined by the following factors:

- Availability of nodules;
- Requirements for downstream piloting;
- Availability of piloting equipment at a given scale;
- Quantity of product available for market assessments.

### **2023 – AU\$3 MILLION**

#### **Environmental Baseline Study Cruise to the Marawa Area – Met Ocean Studies and Biological Sampling**

For the Met Ocean Studies, and to define the existing background conditions, moorings will be installed, with the aim of deploying equipment such as:

- 1) ADCP – water current meters;
- 2) Sediment traps; and
- 3) Hydrophones.

Data deliverables from this program will become available on subsequent campaigns required to service and download data. This data will be used for modelling purposes.

In addition to deployment of the instruments supported by the moorings, the following surveys will also be completed: CTD Profiling and Water Sampling.



Marawa will also look to carry out some of the following studies of biological communities, including benthic and pelagic fauna, with such studies as:

- Survey of a range of faunal types; from mega-epifauna down to meiofauna, and infauna;
- Species distribution and abundance; and
- Stratification by topography/habitat.

Geographic Information System mapping tools will be used to place habitat and sample information in spatial contexts.

Where practicable, colour photographic documentation of organisms will be carried out.

Samples and sample derivatives (e.g. photographs, preserved material, gene sequences) will be linked to relevant collection information (date, time, method of sampling, latitude, longitude, depth etc.).

Identification and enumeration of samples at sea and in the laboratory may be complemented by molecular and isotopic analyses, as appropriate.

#### *Megafauna*

Data on megafauna abundance, biomass, species structure and diversity may be based on photographic transects.

#### *Macrofauna*

Marawa will collect data on macrofauna abundance, species structure, biomass, diversity and sediment depth distribution.

#### *Meiofauna*

Data on meiofauna abundance, biomass, and species structure and depth distribution will likely be based on cores.

#### *Microfauna*

Microbial metabolic activity may be determined using adenosine triphosphate or other standard assay for 0-1 cm intervals of cores.

#### *Nodule fauna*

Abundance, biomass and species structure of the fauna attached to the nodules will likely be determined from selected nodules taken from the top of box corers.

#### *Pelagic communities*

The pelagic community structure around the depth of the plume and in the benthic boundary layer will be assessed. Measurements will likely be made of phytoplankton composition, biomass and production, zooplankton composition, and biomass and bacterial plankton biomass and productivity.



#### *Bioturbation*

Marawa will study bioturbation to collect the natural data, including natural variability to model and to value the effects of the activities (e.g. bottom plume). Rates of bioturbation will likely be measured to analyse the importance of biological activity prior to a mining disturbance by evaluating profiles of excess Pb-210 activity from cores, taking into account the variability in the sediment. Rates and depth of bioturbation may be evaluated by standard advection or direct diffusion models.

#### *Chemical oceanography*

Marawa will collect information on the water column chemistry, including the water overlaying the nodules. This will be used for assessing the possible influence of the modification of the water composition by the mining tests of collecting systems on the biological activity. The water overlying the nodules will be characterized chemically to evaluate processes of chemical exchange between the sediment and the water column in order to assess background conditions prior to any discharge in the water.

#### *Sediment properties*

The basic properties of the sediment will be sampled and determined, including measurement of soil mechanics, to adequately characterize the surficial sediment deposits which are the potential source of deep-water plume. These studies of sediment properties will be undertaken in order to predict the behaviour of any discharge plume and the effect of test mining activity on sediment composition and structure. Natural sedimentation rates will be measured as well as the spatial variability over the proposed mining area. Data will likely be obtained from subsamples using a box core sampler.

### **2024 – AU\$2 MILLION**

**Analyse and report on results from 2023 Environmental Baseline Study Cruise to the Marawa Area**

**Continue engineering studies for the offshore production system**

**Onshore Metallurgical Studies – Site Selection**

#### **TRAINING PROGRAMME:**

In 2020-2024, 5-year period of its exploration programme, Marawa plans to provide up to ten training opportunities, including: training on cruises, participation in the International Foundation for the Law of the Sea (IFLOS) Summer Academy and providing support for study at the University of the South Pacific.

Marawa, will also provide two additional training opportunities to compensate for the missed environmental science training opportunities in the previous 5-year period.



In addition to the above training opportunities, Marawa will collaborate with Kiribati to develop a training or capacity building programme designed to provide Kiribati nationals with the opportunity to gain knowledge and experience relevant to the seafloor minerals industry.

The proposed plan is indicative and is subject to change based on new opportunities that may arise over the course of the next 5-year period.

Marawa will continue to keep the ISA informed of its training plans and progress through the submission of annual training plans.

#### **Training on Cruises**

Marawa plans to provide the opportunity for three candidates from developing states to participate in a seafloor mineral exploration cruise. This will include, making up for the opportunity lost in 2019 due to VISA issues.

Marawa will cover the costs associated with completing any required training, medical testing, the purchase of personal protective equipment, VISA fees and travel costs to and from the port of departure. The qualifications required will be dependent on the cruise objectives and will be defined in collaboration with the ISA.

#### **International Foundation for the Law of the Sea (IFLOS)**

Marawa plans to support six developing state nationals (including one from Kiribati) with the opportunity to participate in the IFLOS's four-week Summer Academy devoted to matters relating to both international law of the sea and maritime law.

The selection of candidates will be a collaborative process between the LTC and the IFLOS selection committee.

#### **Support for study at the University of the South Pacific**

Marawa plans to support two developing state nationals pursue a degree relevant to the seafloor minerals industry, including but not limited to engineering, law, marine science or geology. Marawa will cover the student's tuition, return airfare, accommodations and required textbooks.

<b>Training Initiatives</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
Offshore Cruises	2	2			
International Foundation for the Law of the Sea	2	1	1	1	1
University of South Pacific degree programme			1	1	

- Note: Marawa is awaiting confirmation from the Secretariat that its proposed offshore training in 2020 can be delivered in partnership with NORI to compensate for the missed Environmental



training opportunities missed in 2019. Marawa believes that this would add greater value than the environmental workshop previously committed to in its last 5 Yr training plan.

## 4. Programme of Activities and Exploration Expenditure

Section 4.1 of Annex IV of the Regulations and Schedule 2 of Annex III of the Regulations.

### I. Agreed 5-year Programme of Activities

5-year Programme of Activities	First	Second	Third	Extension
General Objectives	Objective		Description	
	Exploration Work		<p>Mapping of bathymetry and seafloor topography in the exploration area to determine areas that are suitable for nodule occurrence and potential future mining operations</p> <p>High resolution acoustic imaging to ascertain nodule coverage and deposit density</p> <p>Polymetallic nodule sampling to determine grade, confirm nodule abundance, and obtain sufficient quantities for mineral processing studies</p> <p>Geotechnical studies</p> <p>Resource calculation</p>	
	Environmental Studies		Environmental baseline studies	
	Onshore Engineering		Mineral processing and metallurgical studies	
	Offshore Engineering		Engineering design for mining and processing technology	
	Economic Assessment		Scoping Study to indicate the potential economic viability of the project	



**II. Results achieved during reported year [#]: [year]**

Annual objectives and activities			
Year	No.	Agreed Objectives	Objective: Completed, Modified, Postponed or Replaced
2015	Year 1	<p>Carry out initial engineering studies for polymetallic nodule mining and metallurgical processing</p> <p>Environmental Work</p>	<p>Design and costing work for an integrated polymetallic nodule mining system was carried out. This work involved a team of deep sea and offshore professional engineers carrying out concept design of deep water mining systems, as well as a cost estimate and timeline for the offshore system. Additional input for marine transportation was provided by one of the world's largest ship broker organizations specializing in large technical vessels and the energy sector.</p> <p>Key environmental planning activities in 2015 included:</p> <ul style="list-style-type: none"> <li>• Literature review of environmental work carried out in the CCZ;</li> <li>• Development of a preliminary environmental baseline study cruise plan, environmental schedule and cashflow forecast for studies moving forward (including designing studies including oceanography program, obtaining quotes from potential vendors for equipment required to conduct the studies etc.);</li> <li>• Participation in engineering workshops, ensuring environmental input into engineering design early on;</li> <li>• Conducting initial stakeholder mapping;</li> <li>• Refinement of the Environmental Programme;</li> </ul>
2016	Year 2	Scoping Study	<p>A key early component of any resource project involves carrying out a Scoping Study. The purpose of a Scoping Study is to indicate the potential economic viability of a project based on a reasonable set of assumptions. Based on the results of the Scoping Study, it is then possible to determine the best path forward for the project.</p> <p>A Scoping Study for Marawa Block 3 was carried out in 2016, which included an economic assessment of:</p> <p>(i) offshore harvesting;</p>



			<p>(ii) nodule transportation; and (iii) treatment of nodules at an onshore mineral processing facility.</p> <p>Based on the results of the Scoping Study, the work program was changed to focus on engineering studies pertaining to the onshore processing plant, with a particular focus on: (i) reducing Capital and Operating Costs; (ii) reducing technological risk; and (iii) increasing revenues from the processing plant.</p>
2017	Year 3	Work in 2017 was to focus on the engineering studies pertaining to the onshore processing plant, which represents the largest Capital and Operating Cost for the project. Further engineering work on the onshore processing plant was also planned to target reducing technological risk as well as increasing the potential to maximize project revenues.	In 2017 a Capital and Operating Risk Comparison study was carried out to identify alternative flow sheets with potentially lower capital and operating costs.
2018	Year 4	Metallurgical Processing Work	<p>In 2018 significant work was carried out on the metallurgical assessment of various flow sheets to outline the optimal flow sheet that would ideally reduce project capital expenditure and project risk. This work was successful in identifying and assessing the viability of alternatives to the Base Case flow sheet.</p> <p>During this assessment, an alternative pyrometallurgical flow sheet was identified. This flowsheet met all of the project objectives with significantly less technical, execution, start-up and operations risk.</p>



			<p>A concept study was commissioned on this alternative pyrometallurgical alternative flow sheet. The key findings of the study were:</p> <ul style="list-style-type: none"> <li>• Commercial scale operations precedence exists for all major unit operations;</li> <li>• The solid 'waste' product is ideal for aggregate and other infrastructure uses and this material is commonly used as a by-product;</li> <li>• The indicative capital and operating cost estimates were less than that previously estimated for the Base Case;</li> <li>• The intermediate sulfide products are similar to the Base Case, and similar refining technology can be employed for both with the same final product options; and</li> <li>• The manganese product is saleable with less marketing risk than the Base Case.</li> </ul>
2019	Year 5	<u>Update Scoping Study</u>	<p>An updated Scoping Study was carried out, which included a combined pyrometallurgical and hydrometallurgical process as the basis for the recovery of nickel, manganese, cobalt, and copper from polymetallic nodules.</p>
		<u>Exploration Cruise to Marawa Area</u>	<p>The environmental programme, collected 997 seafloor biological and 78 chemistry samples at 18 locations within Marawa Block 3 that, following analysis and interpretation, will provide valuable baseline data for the project. Additionally, surface observations of marine fauna were made during the time spent at Marawa Block 3 and while transiting to and from the site.</p> <p>Geological and geotechnical sampling was also conducted within the Marawa Block 3. The sampling programme was comprised of the collection and processing of 20 box cores. The sampling plan for each site was designed based on the Pioneer sampling results and carried out in such a way that the highest priority sites based on requirements for the resource estimation were sampled first and lower priority sites were sampled last.</p>





**III. Actual and direct exploration expenditures during reported year [#]: [year]**

	<b>Anticipated annual expenditure</b>	<b>Actual and direct exploration expenditures</b>	<b>Comments</b>
<b>Year 1</b>	1 million	US\$1,108,580	A key development in 2015 was the continued decline in metal prices, which had a negative impact throughout the mining industry. Many operators in the mining industry responded to the decline in metal prices by focussing on decreasing their operating costs and improving production efficiencies. Marawa focussed its efforts on key engineering studies for the offshore mining system, with such studies aimed at increasing efficiencies of the system and bringing costs down
<b>Year 2</b>	4 million	US\$2,164,177	Based on the Scoping Study results the work plan changed to focus on the onshore processing plant engineering
<b>Year 3</b>	2 million	US\$776,132	Work focussed on onshore processing plant engineering
<b>Year 4</b>	4 million	US\$2,551,275	Significant work was conducted on the metallurgical



			processing work and a concept study was commissioned. It was decided to carry out the cruise in Year 5 rather than Year 4
<b>Year 5</b>	2 million	US\$2,650,946	Exploration and environmental cruise to Marawa Area

## 5. Training Programme

Schedule 3 of Annex III of the Regulations.

### I. 2015-2019 Training Programme

Type of training	At-sea training opportunity (3 opportunities)	Engineering training opportunity (2 opportunities)	Environmental science training opportunity (2 opportunities)	Capacity Building Opportunities (3 opportunities)
<b>Institutions</b>	Training opportunity will be provided by Marawa and its contractors	Attend a deepsea mining engineering workshop	Attend a deep-sea environmental science workshop focusing on biology and environmental impact assessment	Attend a short course or conference relevant to the deep-sea minerals industry
<b>Duration</b>	Dependent on at-sea cruise length	Dependent on workshop/conference	Dependent on workshop/conference	Dependent on the course
<b>Scope</b>	Geological exploration, geophysical survey or environmental baseline studies	Gain knowledge of deepsea mining industry, subsea engineering and have the opportunity to engage with offshore expert	Increase trainees knowledge of marine environment and marine environmental issues	Oceanography, geology, engineering, legal aspects and or the environment
<b>Fields</b>	Marine geology, geophysics, marine environment, oceanography	Engineering, geology	Environmental and marine science	Oceanography, geology, engineering, legal aspects and or the



				environment
<b>Qualification required</b>	Undergraduate or Masters degree in a relevant degree such as marine geology, geophysics, marine environment, oceanography	Undergraduate or Masters degree in a relevant degree such as engineering, marine geology or geophysics	Bachelor degree in science marine, biology/ecology/environment or an equivalent education	Undergraduate or Masters degree in a relevant degree such as law, marine geology, geophysics, marine environment or oceanography
<b>Financing</b>	Marawa will cover all costs associated with the training opportunity	Marawa will cover all costs associated with the training opportunity	Marawa will cover all costs associated with the training opportunity	Marawa will cover all costs associated with the training opportunity

#### **I. Trainings conducted up to 2019**

<b>Start year</b>	<b>End Year</b>	<b>Name of Trainee</b>	<b>Nationality</b>	<b>Gender</b>	<b>Type of Programme</b>	<b>Details</b>	<b>Duration</b>
2018	2018	Tokabai Bauro	Kiribati	Female	Capacity Building	6th Sustainable Ocean Summit in Hong Kong.	14-16 November
2019	2019	Mekhala Rathnamali	Sri Lanka	Female	At-sea	Exploration & biological cruise – box core and gravity cores	12 November – 22 December
2019	2019	Hank Hedge	Jamaica	Male	Engineering Conference	2019 Underwater Mining Conference – Hainan, China	22-26 September
2019	2019	Joyce Uan	Kiribati	Female	Engineering Conference	2019 Underwater Mining Conference – Hainan, China	22-26 September
2019	2019	Javiera Calisto	Chile	Female	Capacity Building	International Foundation for the Law of the Sea (IFLOS) Summer Academy	21 July – 16 August
2019	2019	Mialisoa Rakotomanana	Madagascar	Female	Capacity Building	International Foundation for the Law of the Sea (IFLOS) Summer Academy	21 July – 16 August



## Training Notes:

- Marawa is awaiting confirmation from the Secretariat that its proposed offshore training in 2020 can be delivered in partnership with NORI to compensate for the missed Environmental training opportunities missed in 2019. Marawa believes that this would add greater value than the environmental workshop previously committed to in its last 5 Yr training plan.

## II. Completed Trainings per Year

	At-sea training opportunity	Engineering training opportunity	Environmental science training opportunity	Capacity Building Opportunities
2018				2 training opportunities offered (only 1 was utilized due to VISA issues)
2019	2 training opportunities offered (only 1 was utilized due to VISA issues)	2 training opportunities offered (2019 Underwater Mining Conference)		2 training opportunities offered (International Foundation for the Law of the Sea Summer Academy)

## 6. Standard clauses

Annex IV of the Regulations.

## STANDARD CLAUSES FOR EXPLORATION CONTRACT

### Section 1

### Definitions

#### 1.1 In the following clauses:



(a) “Exploration area” means that part of the Area allocated to the Contractor for exploration, described in schedule 1 hereto, as the same may be reduced from time to time in accordance with this contract and the Regulations;

(b) “Programme of activities” means the programme of activities which is set out in schedule 2 hereto as the same may be adjusted from time to time in accordance with sections 4.3 and 4.4 hereof;

(c) “Regulations” means the Regulations on Prospecting and Exploration for Polymetallic Nodules in the Area, adopted by the Authority.

1.2 Terms and phrases defined in the Regulations shall have the same meaning in these standard clauses.

1.3 In accordance with the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, its provisions and Part XI of the Convention are to be interpreted and applied together as a single instrument; this contract and references in this contract to the Convention are to be interpreted and applied accordingly.

1.4 This contract includes the schedules to this contract, which shall be an integral part hereof.

## Section 2

### Security of tenure

2.1 The Contractor shall have security of tenure and this contract shall not be suspended, terminated or revised except in accordance with sections 20, 21 and 24 hereof.

2.2 The Contractor shall have the exclusive right to explore for polymetallic nodules in the exploration area in accordance with the terms and conditions of this contract. The Authority shall ensure that no other entity operates in the exploration area for a different category of resources in a manner that might unreasonably interfere with the operations of the Contractor.

2.3 The Contractor, by notice to the Authority, shall have the right at any time to renounce without penalty the whole or part of its rights in the exploration area, provided that the Contractor shall remain liable for all obligations accrued prior to the date of such renunciation in respect of the area renounced.

2.4 Nothing in this contract shall be deemed to confer any right on the Contractor other than those rights expressly granted herein. The Authority reserves the right to enter into contracts with respect to resources other than polymetallic nodules with third parties in the area covered by this contract.

## Section 3

### Contract term

3.1 This contract shall enter into force on signature by both parties and shall remain in force for a period of fifteen years thereafter unless:

(a) The Contractor obtains a contract for exploitation in the exploration area which enters into force before the expiration of such period of fifteen years; or



(b) The contract is sooner terminated, provided that the term of the contract may be extended in accordance with sections 3.2 and 17.2 hereof.

3.2 Upon application by the Contractor, not later than six months before the expiration of this contract, this contract may be extended for periods of not more than five years each on such terms and conditions as the Authority and the Contractor may then agree in accordance with the Regulations. Such extensions shall be approved if the Contractor has made efforts in good faith to comply with the requirements of this contract but for reasons beyond the Contractor's control has been unable to complete the necessary preparatory work for proceeding to the exploitation stage or if the prevailing economic circumstances do not justify proceeding to the exploitation stage.

3.3 Notwithstanding the expiration of this contract in accordance with section 3.1 hereof, if the Contractor has, at least 90 days prior to the date of expiration, applied for a contract for exploitation, the Contractor's rights and obligations under this contract shall continue until such time as the application has been considered and a contract for exploitation has been issued or refused.

## Section 4

### Exploration

4.1 The Contractor shall commence exploration in accordance with the time schedule stipulated in the programme of activities set out in schedule 2 hereto and shall adhere to such time periods or any modification thereto as provided for by this contract.

4.2 The Contractor shall carry out the programme of activities set out in schedule 2 hereto. In carrying out such activities the Contractor shall spend in each contract year not less than the amount specified in such programme, or any agreed review thereof, in actual and direct exploration expenditures.

4.3 The Contractor, with the consent of the Authority, which consent shall not be unreasonably withheld, may from time to time make such changes in the programme of activities and the expenditures specified therein as may be necessary and prudent in accordance with good mining industry practice, and taking into account the market conditions for the metals contained in polymetallic nodules and other relevant global economic conditions.

4.4 Not later than 90 days prior to the expiration of each five-year period from the date on which this contract enters into force in accordance with section 3 hereof, the Contractor and the Secretary-General shall jointly undertake a review of the implementation of the plan of work for exploration under this contract. The Secretary-General may require the Contractor to submit such additional data and information as may be necessary for the purposes of the review. In the light of the review, the Contractor shall make such adjustments to its plan of work as are necessary and shall indicate its programme of activities for the following five-year period, including a revised schedule of anticipated yearly expenditures. Schedule 2 hereto shall be adjusted accordingly.



## Section 5

### Environmental monitoring

5.1 The Contractor shall take necessary measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area as far as reasonably possible applying a precautionary approach and best environmental practices.

5.2 Prior to the commencement of exploration activities, the Contractor shall submit to the Authority:

(a) An impact assessment of the potential effects on the marine environment of the proposed activities;

(b) A proposal for a monitoring programme to determine the potential effect on the marine environment of the proposed activities; and

(c) Data that could be used to establish an environmental baseline against which to assess the effect of the proposed activities.

5.3 The Contractor shall, in accordance with the Regulations, gather environmental baseline data as exploration activities progress and develop and shall establish environmental baselines against which to assess the likely effects of the Contractor's activities on the marine environment.

5.4 The Contractor shall, in accordance with the Regulations, establish and carry out a programme to monitor and report on such effects on the marine environment. The Contractor shall cooperate with the Authority in the implementation of such monitoring.

5.5 The Contractor shall, within 90 days of the end of each calendar year, report to the Secretary-General on the implementation and results of the monitoring programme referred to in section 5.4 hereof and shall submit data and information in accordance with the Regulations.

## Section 6

### Contingency plans and emergencies

6.1 The Contractor shall, prior to the commencement of its programme of activities under this contract, submit to the Secretary-General a contingency plan to respond effectively to incidents that are likely to cause serious harm or a threat of serious harm to the marine environment arising from the Contractor's activities at sea in the exploration area. Such contingency plan shall establish special procedures and provide for adequate and appropriate equipment to deal with such incidents and, in particular, shall include arrangements for:

(a) The immediate raising of a general alarm in the area of the exploration activities;

(b) Immediate notification to the Secretary-General;

(c) The warning of ships which might be about to enter the immediate vicinity;

(d) A continuing flow of full information to the Secretary-General relating to particulars of the contingency measures already taken and further actions required;

(e) The removal, as appropriate, of polluting substances;

(f) The reduction and, so far as reasonably possible, prevention of serious harm to the marine environment, as well as mitigation of such effects;



(g) As appropriate, cooperation with other contractors with the Authority to respond to an emergency; and

(h) Periodic emergency response exercises.

6.2 The Contractor shall promptly report to the Secretary-General any incident arising from its activities that has caused, is causing or poses a threat of serious harm to the marine environment. Each such report shall contain the details of such incident, including, inter alia:

(a) The coordinates of the area affected or which can reasonably be anticipated to be affected;

(b) The description of the action being taken by the Contractor to prevent, contain, minimize and repair the serious harm or threat of serious harm to the marine environment;

(c) A description of the action being taken by the Contractor to monitor the effects of the incident on the marine environment; and

(d) Such supplementary information as may reasonably be required by the Secretary-General.

6.3 The Contractor shall comply with emergency orders issued by the Council and immediate measures of a temporary nature issued by the Secretary-General in accordance with the Regulations, to prevent, contain, minimize or repair serious harm or the threat of serious harm to the marine environment, which may include orders to the Contractor to immediately suspend or adjust any activities in the exploration area.

6.4 If the Contractor does not promptly comply with such emergency orders or immediate measures of a temporary nature, the Council may take such reasonable measures as are necessary to prevent, contain, minimize or repair any such serious harm or the threat of serious harm to the marine environment at the Contractor's expense. The Contractor shall promptly reimburse the Authority the amount of such expenses. Such expenses shall be in addition to any monetary penalties which may be imposed on the Contractor pursuant to the terms of this contract or the Regulations.

## Section 7

### Human remains and objects and sites of an archaeological or historical nature

The Contractor shall immediately notify the Secretary-General in writing of any finding in the exploration area of any human remains of an archaeological or historical nature, or any object or site of a similar nature and its location, including the preservation and protection measures taken. The Secretary-General shall transmit such information to the Director General of the United Nations Educational, Scientific and Cultural Organization and any other competent international organization. Following the finding of any such human remains, object or site in the exploration area, and in order to avoid disturbing such human remains, object or site, no further prospecting or exploration shall take place, within a reasonable radius, until such time as the Council decides otherwise after taking account of the views of the Director General of the United Nations Educational, Scientific and Cultural Organization or any other competent international organization.





## Section 8

### Training

8.1 In accordance with the Regulations, the Contractor shall, prior to the commencement of exploration under this contract, submit to the Authority for approval proposed training programmes for the training of personnel of the Authority and developing States, including the participation of such personnel in all of the Contractor's activities under this contract.

8.2 The scope and financing of the training programme shall be subject to negotiation between the Contractor, the Authority and the sponsoring State or States.

8.3 The Contractor shall conduct training programmes in accordance with the specific programme for the training of personnel referred to in section 8.1 hereof approved by the Authority in accordance with the Regulations, which programme, as revised and developed from time to time, shall become a part of this contract as schedule 3.

## Section 9

### Books and records

The Contractor shall keep a complete and proper set of books, accounts and financial records, consistent with internationally accepted accounting principles. Such books, accounts and financial records shall include information which will fully disclose the actual and direct expenditures for exploration and such other information as will facilitate an effective audit of such expenditures.

## Section 10

### Annual reports

10.1 The Contractor shall, within 90 days of the end of each calendar year, submit a report to the Secretary-General in such format as may be recommended from time to time by the Legal and Technical Commission covering its programme of activities in the exploration area and containing, as applicable, information in sufficient detail on:

- (a) The exploration work carried out during the calendar year, including maps, charts and graphs illustrating the work that has been done and the results obtained;
- (b) The equipment used to carry out the exploration work, including the results of tests conducted of proposed mining technologies, but not equipment design data; and
- (c) The implementation of training programmes, including any proposed revisions to or developments of such programmes.

10.2 Such reports shall also contain:

- (a) The results obtained from environmental monitoring programmes, including observations, measurements, evaluations and analyses of environmental parameters;
- (b) A statement of the quantity of polymetallic nodules recovered as samples or for the purpose of testing;



(c) A statement, in conformity with internationally accepted accounting principles and certified by a duly qualified firm of public accountants, or, where the Contractor is a State or a State enterprise, by the sponsoring State, of the actual and direct exploration expenditures of the Contractor in carrying out the programme of activities during the Contractor's accounting year. Such expenditures may be claimed by the contractor as part of the contractor's development costs incurred prior to the commencement of commercial production; and

(d) Details of any proposed adjustments to the programme of activities and the reasons for such adjustments.

10.3 The Contractor shall also submit such additional information to supplement the reports referred to in sections 10.1 and 10.2 hereof as the Secretary-General may from time to time reasonably require in order to carry out the Authority's functions under the Convention, the Regulations and this contract.

10.4 The Contractor shall keep, in good condition, a representative portion of samples of the polymetallic nodules obtained in the course of exploration until the expiration of this contract. The Authority may request the Contractor in writing to deliver to it for analysis a portion of any such sample obtained during the course of exploration.

10.5 The contractor shall pay at the time of submission of the annual report an annual overhead charge of \$47,000 (or such sum as may be fixed in accordance with section 10.6 hereof) to cover the Authority's costs of the administration and supervision of this contract and of reviewing the reports submitted in accordance with section 10.1 hereof.

10.6 The amount of the annual overhead charge may be revised by the Authority to reflect its costs actually and reasonably incurred.

## Section 11

### Data and information to be submitted on expiration of the contract

11.1 The Contractor shall transfer to the Authority all data and information that are both necessary for and relevant to the effective exercise of the powers and functions of the Authority in respect of the exploration area in accordance with the provisions of this section.

11.2 Upon expiration or termination of this contract the Contractor, if it has not already done so, shall submit the following data and information to the Secretary-General:

(a) Copies of geological, environmental, geochemical and geophysical data acquired by the Contractor in the course of carrying out the programme of activities that are necessary for and relevant to the effective exercise of the powers and functions of the Authority in respect of the exploration area;

(b) The estimation of mineable areas, when such areas have been identified, which shall include details of the grade and quantity of the proven, probable and possible polymetallic nodule reserves and the anticipated mining conditions;

(c) Copies of geological, technical, financial and economic reports made by or for the Contractor that are necessary for and relevant to the effective exercise of the powers and functions of the Authority in respect of the exploration area;



(d) Information in sufficient detail on the equipment used to carry out the exploration work, including the results of tests conducted of proposed mining technologies, but not equipment design data;

(e) A statement of the quantity of polymetallic nodules recovered as samples or for the purpose of testing; and

(f) A statement on how and where samples are archived and their availability to the Authority.

11.3 The data and information referred to in section 11.2 hereof shall also be submitted to the Secretary-General if, prior to the expiration of this contract, the Contractor applies for approval of a plan of work for exploitation or if the Contractor renounces its rights in the exploration area to the extent that such data and information relates to the renounced area.

## Section 12

### Confidentiality

Data and information transferred to the Authority in accordance with this contract shall be treated as confidential in accordance with the provisions of the Regulations.

## Section 13

### Undertakings

13.1 The Contractor shall carry out exploration in accordance with the terms and conditions of this contract, the Regulations, Part XI of the Convention, the Agreement and other rules of international law not incompatible with the Convention.

13.2 The Contractor undertakes:

(a) To accept as enforceable and comply with the terms of this contract;

(b) To comply with the applicable obligations created by the provisions of the Convention, the rules, regulations and procedures of the Authority and the decisions of the relevant organs of the Authority;

(c) To accept control by the Authority of activities in the Area as authorized by the Convention;

(d) To fulfil its obligations under this contract in good faith; and

(e) To observe, as far as reasonably practicable, any recommendations which may be issued from time to time by the Legal and Technical Commission.

13.3 The Contractor shall actively carry out the programme of activities:

(a) With due diligence, efficiency and economy;

(b) With due regard to the impact of its activities on the marine environment; and

(c) With reasonable regard for other activities in the marine environment.

13.4 The Authority undertakes to fulfil in good faith its powers and functions under the Convention and the Agreement in accordance with article 157 of the Convention.

## Section 14



## Inspection

14.1 The Contractor shall permit the Authority to send its inspectors on board vessels and installations used by the Contractor to carry out activities in the exploration area to:

(a) Monitor the Contractor's compliance with the terms and conditions of this contract and the Regulations; and

(b) Monitor the effects of such activities on the marine environment.

14.2 The Secretary-General shall give reasonable notice to the Contractor of the projected time and duration of inspections, the name of the inspectors and any activities the inspectors are to perform that are likely to require the availability of special equipment or special assistance from personnel of the Contractor.

14.3 Such inspectors shall have the authority to inspect any vessel or installation, including its log, equipment, records, facilities, all other recorded data and any relevant documents which are necessary to monitor the Contractor's compliance.

14.4 The Contractor, its agents and employees shall assist the inspectors in the performance of their duties and shall:

(a) Accept and facilitate prompt and safe boarding of vessels and installations by inspectors;

(b) Cooperate with and assist in the inspection of any vessel or installation conducted pursuant to these procedures;

(c) Provide access to all relevant equipment, facilities and personnel on vessels and installations at all reasonable times;

(d) Not obstruct, intimidate or interfere with inspectors in the performance of their duties;

(e) Provide reasonable facilities, including, where appropriate, food and accommodation, to inspectors; and

(f) Facilitate safe disembarkation by inspectors.

14.5 Inspectors shall avoid interference with the safe and normal operations on board vessels and installations used by the Contractor to carry out activities in the area visited and shall act in accordance with the Regulations and the measures adopted to protect confidentiality of data and information.

14.6 The Secretary-General and any duly authorized representatives of the Secretary-General, shall have access, for purposes of audit and examination, to any books, documents, papers and records of the Contractor which are necessary and directly pertinent to verify the expenditures referred to in section 10.2 (c).

14.7 The Secretary-General shall provide relevant information contained in the reports of inspectors to the Contractor and its sponsoring State or States where action is necessary.

14.8 If for any reason the Contractor does not pursue exploration and does not request a contract for exploitation, it shall, before withdrawing from the exploration area, notify the Secretary-General in writing in order to permit the Authority, if it so decides, to carry out an inspection pursuant to this section.

## Section 15

### Safety, labour and health standards



15.1 The Contractor shall comply with the generally accepted international rules and standards established by competent international organizations or general diplomatic conferences concerning the safety of life at sea, and the prevention of collisions and such rules, regulations and procedures as may be adopted by the Authority relating to safety at sea. Each vessel used for carrying out activities in the Area shall possess current valid certificates required by and issued pursuant to such international rules and standards.

15.2 The Contractor shall, in carrying out exploration under this contract, observe and comply with such rules, regulations and procedures as may be adopted by the Authority relating to protection against discrimination in employment, occupational safety and health, labour relations, social security, employment security and living conditions at the work site. Such rules, regulations and procedures shall take into account conventions and recommendations of the International Labour Organization and other competent international organizations.

## Section 16

### Responsibility and liability

16.1 The Contractor shall be liable for the actual amount of any damage, including damage to the marine environment, arising out of its wrongful acts or omissions, and those of its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this contract, including the costs of reasonable measures to prevent or limit damage to the marine environment, account being taken of any contributory acts or omissions by the Authority.

16.2 The Contractor shall indemnify the Authority, its employees, subcontractors and agents against all claims and liabilities of any third party arising out of any wrongful acts or omissions of the Contractor and its employees, agents and subcontractors, and all persons engaged in working or acting for them in the conduct of its operations under this contract.

16.3 The Authority shall be liable for the actual amount of any damage to the Contractor arising out of its wrongful acts in the exercise of its powers and functions, including violations under article 168 (2) of the Convention, account being taken of contributory acts or omissions by the Contractor, its employees, agents and subcontractors, and all persons engaged in working or acting for them in the conduct of its operations under this contract.

16.4 The Authority shall indemnify the Contractor, its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this contract, against all claims and liabilities of any third party arising out of any wrongful acts or omissions in the exercise of its powers and functions hereunder, including violations under article 168 (2) of the Convention.

16.5 The Contractor shall maintain appropriate insurance policies with internationally recognized carriers, in accordance with generally accepted international maritime practice.

## Section 17

### Force majeure



17.1 The Contractor shall not be liable for an unavoidable delay or failure to perform any of its obligations under this contract due to force majeure. For the purposes of this contract, force majeure shall mean an event or condition that the Contractor could not reasonably be expected to prevent or control; provided that the event or condition was not caused by negligence or by a failure to observe good mining industry practice.

17.2 The Contractor shall, upon request, be granted a time extension equal to the period by which performance was delayed hereunder by force majeure and the term of this contract shall be extended accordingly.

17.3 In the event of force majeure, the Contractor shall take all reasonable measures to remove its inability to perform and comply with the terms and conditions of this contract with a minimum of delay.

17.4 The Contractor shall give notice to the Authority of the occurrence of an event of force majeure as soon as reasonably possible, and similarly give notice to the Authority of the restoration of normal conditions.

## Section 18

### Disclaimer

Neither the Contractor nor any affiliated company or subcontractor shall in any manner claim or suggest, whether expressly or by implication, that the Authority or any official thereof has, or has expressed, any opinion with respect to polymetallic nodules in the exploration area and a statement to that effect shall not be included in or endorsed on any prospectus, notice, circular, advertisement, press release or similar document issued by the Contractor, any affiliated company or any subcontractor that refers directly or indirectly to this contract. For the purposes of this section, an “affiliated company” means any person, firm or company or State-owned entity controlling, controlled by, or under common control with, the Contractor.

## Section 19

### Renunciation of rights

The Contractor, by notice to the Authority, shall have the right to renounce its rights and terminate this contract without penalty, provided that the Contractor shall remain liable for all obligations accrued prior to the date of such renunciation and those obligations required to be fulfilled after termination in accordance with the Regulations.

## Section 20

### Termination of sponsorship

20.1 If the nationality or control of the Contractor changes or the Contractor’s sponsoring State, as defined in the Regulations, terminates its sponsorship, the Contractor shall promptly notify the Authority forthwith.



20.2 In either such event, if the Contractor does not obtain another sponsor meeting the requirements prescribed in the Regulations which submits to the Authority a certificate of sponsorship for the Contractor in the prescribed form within the time specified in the Regulations, this contract shall terminate forthwith.

## Section 21

### Suspension and termination of contract and penalties

21.1 The Council may suspend or terminate this contract, without prejudice to any other rights that the Authority may have, if any of the following events should occur:

(a) If, in spite of written warnings by the Authority, the Contractor has conducted its activities in such a way as to result in serious persistent and wilful violations of the fundamental terms of this contract, Part XI of the Convention, the Agreement and the rules, regulations and procedures of the Authority; or

(b) If the Contractor has failed to comply with a final binding decision of the dispute settlement body applicable to it; or

(c) If the Contractor becomes insolvent or commits an act of bankruptcy or enters into any agreement for composition with its creditors or goes into liquidation or receivership, whether compulsory or voluntary, or petitions or applies to any tribunal for the appointment of a receiver or a trustee or receiver for itself or commences any proceedings relating to itself under any bankruptcy, insolvency or readjustment of debt law, whether now or hereafter in effect, other than for the purpose of reconstruction.

21.2 The Council may, without prejudice to section 17, after consultation with the Contractor, suspend or terminate this contract, without prejudice to any other rights that the Authority may have, if the Contractor is prevented from performing its obligations under this contract by reason of an event or condition of force majeure, as described in section 17.1, which has persisted for a continuous period exceeding two years, despite the Contractor having taken all reasonable measures to overcome its inability to perform and comply with the terms and conditions of this contract with minimum delay.

21.3 Any suspension or termination shall be by notice, through the Secretary-General, which shall include a statement of the reasons for taking such action. The suspension or termination shall be effective 60 days after such notice, unless the Contractor within such period disputes the Authority's right to suspend or terminate this contract in accordance with Part XI, section 5, of the Convention.

21.4 If the Contractor takes such action, this contract shall only be suspended or terminated in accordance with a final binding decision in accordance with Part XI, section 5, of the Convention.

21.5 If the Council has suspended this contract, the Council may by notice require the Contractor to resume its operations and comply with the terms and conditions of this contract, not later than 60 days after such notice.

21.6 In the case of any violation of this contract not covered by section 21.1 (a) hereof, or in lieu of suspension or termination under section 21.1 hereof, the Council may impose upon the Contractor monetary penalties proportionate to the seriousness of the violation.





21.7 The Council may not execute a decision involving monetary penalties until the Contractor has been accorded a reasonable opportunity to exhaust the judicial remedies available to it pursuant to Part XI, section 5, of the Convention.

21.8 In the event of termination or expiration of this contract, the Contractor shall comply with the Regulations and shall remove all installations, plant, equipment and materials in the exploration area and shall make the area safe so as not to constitute a danger to persons, shipping or to the marine environment.

## Section 22

### Transfer of rights and obligations

22.1 The rights and obligations of the Contractor under this contract may be transferred in whole or in part only with the consent of the Authority and in accordance with the Regulations.

22.2 The Authority shall not unreasonably withhold consent to the transfer if the proposed transferee is in all respects a qualified applicant in accordance with the Regulations and assumes all of the obligations of the Contractor and if the transfer does not confer to the transferee a plan of work, the approval of which would be forbidden by article 6, paragraph 3 (c), of annex III to the Convention.

22.3 The terms, undertakings and conditions of this contract shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns.

## Section 23

### No waiver

No waiver by either party of any rights pursuant to a breach of the terms and conditions of this contract to be performed by the other party shall be construed as a waiver by the party of any succeeding breach of the same or any other term or condition to be performed by the other party.

## Section 24

### Revision

24.1 When circumstances have arisen or are likely to arise which, in the opinion of the Authority or the Contractor, would render this contract inequitable or make it impracticable or impossible to achieve the objectives set out in this contract or in Part XI of the Convention or the Agreement, the parties shall enter into negotiations to revise it accordingly.

24.2 This contract may also be revised by agreement between the Contractor and the Authority to facilitate the application of any rules, regulations and procedures adopted by the Authority subsequent to the entry into force of this contract.





24.3 This contract may be revised, amended or otherwise modified only with the consent of the Contractor and the Authority by an appropriate instrument signed by the authorized representatives of the parties.

## Section 25

### Disputes

25.1 Any dispute between the parties concerning the interpretation or application of this contract shall be settled in accordance with Part XI, section 5, of the Convention.

25.2 In accordance with article 21 (2) of Annex III to the Convention, any final decision rendered by a court or tribunal having jurisdiction under the Convention relating to the rights and obligations of the Authority and of the Contractor shall be enforceable in the territory of any State party to the Convention affected thereby.

## Section 26

### Notice

26.1 Any application, request, notice, report, consent, approval, waiver, direction or instruction hereunder shall be made by the Secretary-General or by the designated representative of the Contractor, as the case may be, in writing. Service shall be by hand, or by telex, fax, registered airmail or e-mail containing an authorized signature to the Secretary-General at the headquarters of the Authority or to the designated representative. The requirement to provide any information in writing under these Regulations is satisfied by the provision of the information in an e-mail containing a digital signature.

26.2 Either party shall be entitled to change any such address to any other address by not less than ten days' notice to the other party.

26.3 Delivery by hand shall be effective when made. Delivery by telex shall be deemed to be effective on the business day following the day when the "answer back" appears on the sender's telex machine. Delivery by fax shall be effective when the "transmit confirmation report" confirming the transmission to the recipient's published fax number is received by the transmitter. Delivery by registered airmail shall be deemed to be effective 21 days after posting. An e-mail is presumed to have been received by the addressee when it enters an information system designated or used by the addressee for the purpose of receiving documents of the type sent and it is capable of being retrieved and processed by the addressee.

26.4 Notice to the designated representative of the Contractor shall constitute effective notice to the Contractor for all purposes under this contract, and the designated representative shall be the Contractor's agent for the service of process or notification in any proceeding of any court or tribunal having jurisdiction.

26.5 Notice to the Secretary-General shall constitute effective notice to the Authority for all purposes under this contract, and the Secretary-General shall be the Authority's agent for the service of process or notification in any proceeding of any court or tribunal having jurisdiction.



## Section 27

### Applicable law

27.1 This contract shall be governed by the terms of this contract, the rules, regulations and procedures of the Authority, Part XI of the Convention, the Agreement and other rules of international law not incompatible with the Convention.

27.2 The Contractor, its employees, subcontractors, agents and all persons engaged in working or acting for them in the conduct of its operations under this contract shall observe the applicable law referred to in section 27.1 hereof and shall not engage in any transaction, directly or indirectly, prohibited by the applicable law.

27.3 Nothing contained in this contract shall be deemed an exemption from the necessity of applying for and obtaining any permit or authority that may be required for any activities under this contract.

## Section 28

### Interpretation

The division of this contract into sections and subsections and the insertion of headings are for convenience of reference only and shall not affect the construction or interpretation hereof.

## Section 29

### Additional documents

Each party hereto agrees to execute and deliver all such further instruments, and to do and perform all such further acts and things as may be necessary or expedient to give effect to the provisions of this contract.