

“Hydrocarbons” has the meaning assigned to it in paragraph 1 of article 1 of the Hydrocarbons Law.

“Hydrocarbon Exploitation” has the meaning assigned to it in paragraph 5 of article 1 of the Hydrocarbons Law.

“Hydrocarbon Exploration” has the meaning assigned to it in paragraph 4 of article 1 of the Hydrocarbons Law.

“Hydrocarbons Law” means Law No. 2289/95 "Prospecting, Exploration and Exploitation of Hydrocarbons, and other provisions" as in force.

“Hydrocarbons Reservoir” means a discrete accumulation of Hydrocarbons in the subsoil.

“Independent Third Party” has the meaning assigned to it in paragraph 10 of article 1 the Hydrocarbons Law.

“Law” means any law, rule, regulation, decree, statute, order, enactment, act or resolution of a Governmental Authority having effect within the State.

“Minimum Expenditure Obligation” means the amounts set out at the end of, respectively the First Phase, the Second Phase and the Third Phase in Article 3 (Lessee's Exploration Work Commitments).

“Minimum Work Programme” means the work to be performed in, respectively the First Phase, the Second Phase and the Third Phase pursuant to Article 3 (Lessee's Exploration Work Commitment).

“Minister” means the Minister of Environment, Energy and Climate Change of Greece.

“Month” means a calendar month.

“Natural Gas” means Hydrocarbons in gaseous form including, but not limited to, wet mineral gas, dry mineral gas, casinghead gas and residue gas remaining after the extraction or separation of liquid Hydrocarbons from wet gas and other valuable non Hydrocarbon gas.

“Operator” means the entity designated as the “Operator” under a joint operating agreement or other similar document to be concluded by the Co-Lessees, being the party that implements the collective will of the Co-Lessees and is responsible for the day to day operations. The Co-Lessees hereby designate as “Operator” one of the Co-Lessees namely ENERGEAN OIL & GAS S.A.

“Phase” means any, or all, of the First Phase, the Second Phase or the Third Phase, as the context requires.

“Party” means either the Lessor or the Lessee and **“Parties”** means the Lessor and the Lessee unless in

either case this Agreement provides otherwise.

"Petroleum Operations" means Exploration Operations or Exploitation Operations.

"Presidential Decree" means the Presidential Decree No.127/96 "Lease terms of the right for exploration and exploitation of hydrocarbons".

"Proceedings" means any suit, action or proceedings arising out of, or in connection with this Agreement.

"Produced and Saved" means produced in an Exploitation Area but does not include any Hydrocarbons used in the course of production or lost, other than Hydrocarbons lost by reason of the negligence of the Lessee or the Lessee's failure to observe Good Oilfield Practice.

"Proper Application" has the meaning assigned to it in Article 27.6.

"Proprietary Data" means any interpretative and derivative data, including internal memoranda, reports, analyses, interpretations and evaluations prepared by the Lessee in respect of the Petroleum Operations.

"Response" means a written notification from a relevant Government Authority to the Lessee, that a Proper Application for a Consent is approved or rejected, with or without conditions.

"Second Phase" means the second phase of the Basic Exploration Stage described in Article 2.1(a) of this Agreement.

"Service Document" means a writ, application, claim, summons, petition, order, award, judgment or other document relating to any Proceedings.

"Sole Expert" means a member from:

- (a) **the Energy Institute of London;**
- (b) **the American Petroleum Institute; or**
- (c) **the French Institute of Petroleum (IFP),**

provided that, if there is a conflict of interests with all of the aforementioned institutes, the Lessor shall be entitled to appoint an independent, reputable petroleum institute of another member state of the European Union in which Hydrocarbons are produced.

"State" or **"Greece"** means the Hellenic Republic.

"State Data" means any and all geological, geophysical, drilling, well production data, well location maps and other information held or developed by the Lessor in any form in relation to the Contract Area as well as any data acquired and/or produced under the non exclusive marine seismic data acquisition and

services commenced on the 26th of October 2012, in any form in relation to the Contract Area.

“Third Phase” means the third phase of the Basic Exploration Stage described in Article 2.1(a) of this Agreement.

INTERPRETATION

In this Agreement, subject to any express contrary indication:

- (a) any reference to an Article shall be construed as a reference to an article of this Agreement and any reference to an Annex shall be to an annexure to this Agreement;
- (b) any reference to a person shall be construed as including:
 - (i) any person, firm, company, Governmental Authority, corporation, society, trust, foundation, government, state or agency of a state or any association or partnership (in each case whether or not having separate legal personality) of two or more of these;
 - (ii) a reference to the successors, permitted transferees and permitted assignees of any of the persons referred to in sub-paragraph (i) above;
- (c) any reference to this Agreement or any other agreement or document shall be construed as a reference to that agreement or document as it may have been, or may from time to time be, amended, varied, novated, replaced or supplemented;
- (d) any reference to a Law shall be construed as a reference to it as it may have been, or may from time to time be (with or without modification) amended or re-enacted and any subordinate legislation made, or thing done, or may from time to time be done.
- (e) capitalised terms used in this Agreement shall have the meaning ascribed to them in the Definitions section or elsewhere in the Agreement.

ARTICLE 1 - SCOPE OF THE AGREEMENT

- 1.1 This Agreement is a lease agreement under which, pursuant to paragraph 10 of article 2 of the Hydrocarbons Law, the State, as the Lessor, grants to the Lessee, in accordance with the terms and conditions hereof, exclusive rights to carry on Petroleum Operations in the Contract Area.
- 1.2 The Lessee undertakes in accordance with the terms and conditions set out herein to carry on Petroleum Operations in the Contract Area, always in accordance with the Law.
- 1.3 The cost and risk of carrying on Petroleum Operations shall be borne exclusively by the Lessee and the Lessee will have no right to recover such costs, or any part thereof, except as hereinafter provided in this Agreement.

1.4 Each Co-Lessee shall

- (a) be jointly and severally liable in respect of the Lessee's and the other Co-Lessees' obligations arising under this Agreement against the Lessor.
- (b) hold an undivided interest in all of the rights under this Agreement as per Article 1.5.

For the purposes of this Agreement, any reference to the term "Joint Venture" in the Hydrocarbons Law means the contractual co-operation of the Co-Lessees under a joint operating agreement, without creating or implying or having the intention to create any de jure or de facto partnership or entity with or without a separate legal personality.

1.5 The interest of each person constituting the Lessee in the Lease Agreement is as follows:

ENERGEAN OIL & GAS S.A.	80 %
PETRA PETROELUM INC.	20%

1.6 The Lessor and the Lessee hereby expressly and unconditionally agree and accept that:

- a) any contract to which the Lessor is not a contracting party, which contains terms or provisions defining the relations between the Lessee and/or the Co-Lessees and/or third parties shall not create any claim against the Lessor or amend this Agreement or regulate this Agreement in a different way;
- b) any contract to which the Lessee or each Co-Lessee is not a contracting party, which contains terms or provisions defining the relations between the Lessor and third parties shall not create any claim against the Lessor or amend this Agreement or regulate this Agreement in a different way;
- c) the terms and provisions of the afore-mentioned contracts cannot be used as a means of interpreting this Agreement nor may they be considered to prevail in any way, either in part or in whole, over this Agreement;
- d) both the Lessor and the Lessee hereby simultaneously waive every right to contest, cancel and/or challenge the validity and enforceability of this clause.

ARTICLE 2 - EXPLORATION DURATION OF THE EXPLORATION STAGE

The Exploration Stage shall commence on the Effective Date and, unless this Agreement is sooner terminated in accordance with its terms, shall subsist for the periods described in this Article 2.

2.1 For a Basic Exploration Stage

- (a) Subject as hereinafter provided, the basic exploration stage (the "Basic Exploration Stage") shall subsist for 7 years. For the purposes of this Article and for the purpose of Article 3,

Exploration Stage is divided into consecutive exploration Phases defined for the Contract Area as follows:

First Phase: 3 years

Second Phase: 2 years

Third Phase: 2 years

- (b) Where the Lessee has, during the First Phase fulfilled its Minimum Work Programme and Minimum Expenditure Obligation relating to that Phase in accordance with Article 3 it will have the option, by giving notice to the Lessor, to continue its Exploration Operations during the Second Phase and shall thereupon assume and during the Second Phase discharge its Minimum Work Programme and Minimum Expenditure Obligation relating to that phase set out in Article 3.
- (c) Where the Lessee has, during the Second Phase fulfilled its Minimum Work Programme and Minimum Expenditure Obligation relating to that Phase in accordance with Article 3 it will have the option, by giving notice to the Lessor, to continue its Exploration Operations during the Third Phase and shall thereupon assume and during the Third Phase discharge its Minimum Work Programme and Minimum Expenditure Obligation relating to that phase set out in Article 3.
- (d) In the event that, before the end of the First Phase or, as the case may be, before the end of the Second Phase the Lessee has not given to the Lessor notice pursuant to Article 2.1(b) or, as the case may be, Article 2.1(c), the rights and obligations of the Lessee in respect of the Contract Area shall cease and, subject always to the obligations of the Lessee in respect of liabilities which have accrued during this Agreement, shall be deemed to have been terminated.
- (e) Upon the Lessee's duly justified and reasonable request, in order to provide the Lessee with sufficient time to drill and/or test a well and to enable the Lessee to make a decision whether to commit to the next Phase in accordance with Article 2.1(b) and (c) above, a current Phase (other than the Third Phase) may be extended by a period up to six (6) Months, provided that the well is the subject of the Minimum Work Obligation and has been spud prior to the end of the said Phase. If required, and upon the Lessee's duly justified and reasonable request, the Phase may be further extended for a reasonable time period.

- (f) In the event that a current Phase (other than the Third Phase) is extended pursuant to Article 2.1 (e) the amount of time by which the current Phase is extended shall be deducted from the period of time defined for the subsequent Phase.

2.2 For an Exploration Stage Extension

- a) The Lessee will have the option in accordance with the provisions of paragraph 3 of article 5 of the Hydrocarbons Law, to apply for an exploration stage extension (an "Exploration Stage Extension").
- b) It is understood and agreed between the Parties that a requirement for additional time to complete an Appraisal Programme, or where additional reserves must be discovered before a commercial deposit can be established, to undertake further exploration drilling, or to establish a market for Natural Gas, shall be a requirement falling within the scope of subparagraph (b) of paragraph 3 of article 5 of the Hydrocarbons Law.
- c) If an Exploration Stage Extension is granted pursuant to paragraph 3 of article 5 of the Hydrocarbons Law, the Lessee shall provide the Lessor with a Bank Guarantee on the first day of the Exploration Stage Extension for the full amount, if any, of any shortfall, being the difference between the Minimum Expenditure Obligation at the end of the Basic Exploration Stage and the Lessee's Actual Expenditure. Such Bank Guarantee will replace any existing current Bank Guarantee already provided under this Agreement. In the event that there is no such shortfall, the Lessor shall return any Bank Guarantee provided pursuant to the above promptly upon the commencement of the Exploration Stage Extension.

2.3 For a Special Exploration Stage Extension

- a) Pursuant to paragraph 4 of article 5 of the Hydrocarbons Law, a Special Exploration Stage Extension, not exceeding seven (7) years may, on the Lessee's application, be granted to the Lessee by resolution of the Council of Ministers on the recommendation of the Minister. Additional terms and conditions may be imposed in the resolution of the Council of Ministers, notwithstanding the provisions of this Agreement and, if applicable, this Agreement shall be amended accordingly.
- b) In a case where the Lessee has made a Discovery in the Contract Area of non-associated Natural Gas or a Discovery of a Hydrocarbon Reservoir which cannot be exploited commercially without the exploitation of Associated Natural Gas, the Lessor will support an application by the Lessee under article 5 paragraph 4 of the Hydrocarbons Law for a Special Exploration Stage Extension sufficient to enable the Lessee, before making a declaration of commerciality, to consider the construction and financing of the necessary infrastructure for the disposal of Natural Gas.

ARTICLE 3 - LESSEE'S EXPLORATION WORK COMMITMENTS

- 3.1 In discharge of its obligation to carry out Petroleum Operations in the Contract Area the Lessee shall commence Exploration Operations not later than six (6) Months from the Effective Date and shall carry out the work and spend not less than the sums specified in Article 3.2.
- 3.2 For the purpose of this Article the Minimum Work Programme to be performed, and the Minimum Expenditure Obligations of the Lessee in each phase of the Basic Exploration Stage, as described in Article 2, shall be as follows:

First Phase: 3 years

Work Category	Description	Minimum Expenditure
Seismic	Seismic Reprocessing New Seismic Acquisition of 300 km of 2D data Pre-drill	2.900.000 €
Well Drilling	Re-entry and deepening of Demetra-1 well, or if not technically possible, additional 2D Seismic will be acquired	4.000.000 €
Other Work	Geological Surveys Full Tensor Gravity Gradiometry and Aeromagnetic Surveys	1.000.000 €
Total Minimum Expenditure		7.900.000 €

Second Phase: 2 years

Work Category	Description	Minimum Expenditure
Seismic	---	---
Well Drilling	Drill 1st deep well (dry hole cost)	11.500.000 €
Other Work	---	---
Total Minimum Expenditure		11.500.000 €

Third Phase: 2 years

Work Category	Description	Minimum Expenditure
Seismic	---	---
Well Drilling	Drill 2nd well (dry hole cost)	11.500.000 €
Other Work	---	---
Total Minimum Expenditure		11.500.000 €

- 3.3 Subject to Article 3.4, the Minimum Expenditure Obligations set forth in Article 3.2 shall not, in respect of any phase referred to therein, be satisfied unless during that phase the total Actual Expenditure attributable to the work for that phase described in Article 3.2 equals or exceeds the amount of the Minimum Expenditure Obligation; provided, however, that if in any phase, the Lessee has, to the reasonable satisfaction of the Lessor, carried out the Minimum Work Programme for that phase, the Minimum Expenditure Obligation, notwithstanding any shortfall, shall be deemed for that phase to have been satisfied.
- 3.4 Where the Actual Expenditure incurred by the Lessee during any phase referred to in Article 3.2 exceeds the Minimum Expenditure Obligation for that phase, the amount of such excess may be carried forward and credited against the Minimum Expenditure Obligation in the next succeeding phase; provided, however that nothing in this provision shall be construed as extinguishing, postponing or modifying any obligation of the Lessee to drill an Exploration Well pursuant to this Article.
- 3.5 An Exploration Well drilled by the Lessee in accordance with Good Oilfield Practices shall be treated as discharging the obligation of the Lessee to drill an Exploration Well under this Article if:-
- (a) it has been drilled to such depth of 5,000 meters or 100 meters below the base of the Triassic Evaporites, whichever is the shallower; or
 - (b) before reaching such depth, the basement is encountered in the said well below which the geological structure does not have the properties necessary for accumulation of Hydrocarbons in commercial quantities; or
 - (c) insurmountable technical problems not caused or aggravated by the Lessee are encountered at a lesser depth in the said well which make further drilling impractical; or
 - (d) the well encounters significantly productive horizons.

- 3.6 No Appraisal Well and no seismic survey carried out pursuant to an Appraisal Programme, and no-expenditure incurred in carrying out such Appraisal Programme shall be treated as discharging or contributing to the discharge of the Minimum Work Programme or Minimum Expenditure Obligations set forth in Article 3.2.
- 3.7 The Lessee shall five (5) days before the date on which this Agreement is ratified and, if the Lessee has given notices to the Lessor under Article 2.1(b) or Article 2.1(c), on the first day of the Second Phase or the first day of the Third Phase, respectively, provide, a Bank Guarantee in respect of the Minimum Expenditure Obligation (less any amount credited in accordance with Article 3.4) for the relevant Phase. The amount of the Bank Guarantee given pursuant to this Article shall be reduced at the end of every Calendar Quarter by an amount equal to the Actual Expenditure incurred by the Lessee during that Calendar Quarter. In order to facilitate the reduction of the Bank Guarantee, the Lessee shall provide the Lessor with a signed notice outlining (i) the amount of the reduction of the Bank Guarantee; and (ii) the revised amount that the bank may be liable to pay under the Bank Guarantee. The Lessor, on receipt of such notice provided by the Lessee, shall, no later than 45 days from the end of the respective Calendar Quarter, sign and release a written notice to the Bank and (unless the Lessee's notice is contested by the Lessor within the same time period) in the event that the Lessor fails to sign and release such notice, the amount of the Bank Guarantee shall nevertheless be deemed to be reduced by the amount set out in the relevant notice.
- 3.8 If, at the end of any Phase, the Lessor determines that the Actual Expenditure incurred by the Lessee during that Phase (taking account of any amount carried forward pursuant to Article 3.4) does not equal or exceed the Minimum Expenditure Obligation for that Phase, the Bank Guarantee shall provide for the payment to the Lessor of the full amount of the shortfall.
- 3.9 For the purpose of this Agreement: "**Actual Expenditure**" means expenditure incurred by the Lessee during a particular Phase of the Basic Exploration Stage, being:
- (a) expenditure solely and directly attributable to the activities of the Minimum Work Programme for that particular Phase, as described in Article 3.2 and General and Administrative Costs as defined in 2.5(a) and/or 2.5(b) of Annex C allocated to such activities; and
 - (b) under the condition that the Minimum Work Programme of that Phase has been performed, all expenditure incurred (either before or after such performance) for Exploration Operations in the approved Annual Work Programmes and Budgets for that Phase and the General and Administrative Costs as defined in Section 2.5(a) and/or 2.5(b) of Annex C allocated to such Exploration Operations.
- 3.10 The Lessee shall maintain accurate records and accounts of all Actual Expenditure and, with regard to the General and Administrative Costs (as defined in Section 2.5(a) and/or 2.5(b) of Annex C) shall maintain all documents, including invoices, records and time sheets. In order to verify that Actual Expenditure is comprised only of amounts that are required to perform the respective Exploration Operations of a particular Phase, the Lessor shall be entitled, according to Article 19.13(a), to conduct an audit in accordance with Section 1.6 of Annex C.

- 3.11 In respect of that area relinquished or surrendered under Article 6, the Lessee shall, within six (6) Months from the date of termination of any phase of the Exploration Stage, remove the installations used, plug and abandon all wells in accordance with practices customary in the international petroleum industry and restore the environment, as nearly as possible to its original condition.

ARTICLE 4 - TECHNICAL ADVISORY COMMITTEE

- 4.1 The Lessor and the Lessee shall within five (5) calendar days of the Effective Date establish a committee to be known as the Technical Advisory Committee which shall consist of:
- (a) a chairperson and two other persons appointed by the Lessor; and
 - (b) three other persons appointed by the Lessee.
- 4.2 Either the Lessor or the Lessee may appoint by notice in writing any person respectively appointed by them to act in the place of any member of the Technical Advisory Committee during his absence or incapacity to act as a member of the Technical Advisory Committee.
- 4.3 When such alternate member acts in the place of any member, he shall have the powers and perform the duties of such member.
- 4.4 Without prejudice to the rights and obligations of the Lessee in relation to the management of its operation, the functions of the Technical Advisory Committee shall be:-
- (a) to oversee the conduct of the Petroleum Operations by the Lessee;
 - (b) save where a proposed Annual Work Programme and Budget is deemed to have been approved by the Lessor pursuant to the Presidential Decree and Article 5 of this Agreement, to review the Annual Work Programme and Budget submitted by the Lessee and consider proposals for the revision of specific features thereof submitted by the Lessor;
 - (c) to review any Appraisal Programme submitted by the Lessee to the Lessor and to monitor the implementation of the work conducted thereunder;
 - (d) to review any Development and Production Programme submitted by the Lessee to the Lessor in connection with a Discovery of commercially exploitable Hydrocarbons;
 - (e) to review the estimated production schedule submitted with each Annual Work Programme and Budget relating to Exploitation Operations;
 - (f) to review the accounting of expenditure and the maintenance of operating records and reports kept in connection with the Petroleum Operations for compliance with this Agreement; and
 - (g) generally, to assist the Lessor in the exercise of its functions under this Agreement.
- 4.5 All meetings of the Technical Advisory Committee shall be held at such places, whether within or, with the prior approval in writing of the Lessor, outside Greece, and at such times, but not less than one meeting during each quarter, as may be determined unanimously by its members.

- 4.6 In addition to the scheduled meetings of the Technical Advisory Committee, either the Lessor or the Lessee shall have the right to convene a meeting of the Technical Advisory Committee within Greece in the event of an emergency or extraordinary situation by giving not less than three (3) calendar days written notice to each of the members of the Technical Advisory Committee.
- 4.7 Five members of the Technical Advisory Committee shall form a quorum for a meeting of the committee.
- 4.8 The Lessor and the Lessee shall each have the right to call any expert to any meeting of the Technical Advisory Committee to advise the committee on any matter of a technical nature requiring expert advice.
- 4.9 All decisions of the Technical Advisory Committee shall be by unanimous vote of the members present at a meeting thereof and together forming a quorum.
- 4.10 If the Technical Advisory Committee is unable to reach unanimity on any matter being considered by the committee under this Article 4, the matter shall be referred to the Lessee and the Lessor within fifteen (15) calendar days from the date of the meeting where the matter was considered. If the Parties fail to reach unanimity within thirty (30) calendar days of such referral, the matter shall be referred to a Sole Expert for final determination in accordance with Article 23. Provided however that in the case of an Annual Work Programme and Budget submitted by the Lessee prior to a Discovery by the Lessee, the proposals of the Lessee, set out in the Annual Work Programme and Budget, shall be deemed to have been accepted by the Technical Advisory Committee so long as those proposals have been devised in conformity with Article 5 and are consistent with and are intended to enable the Lessee to perform its work and expenditure obligations under Article 3.

ARTICLE 5 - ANNUAL WORK PROGRAMME AND BUDGET

- 5.1 Three (3) Months before each Calendar Year, or at such time as may be mutually agreed with the Lessor, the Lessee shall prepare and submit to the Lessor for approval a programme setting forth all works and operations, provided for under the Agreement (studies, exploration, procurement, equipment, installations, etc) with the budgeted cost for each item and in accordance with the procedure and the context set out in Section 9 of Annex C (the “**Annual Work Programme and Budget**”) which it proposes to carry out during the ensuing twelve (12) Month period (provided that if the Effective Date is different to the date of commencement of a Calendar Year, within sixty (60) calendar Days of the Effective Date the Lessee shall submit a programme for the remainder of the then current Calendar Year).
- 5.2 Within one (1) Month of its submission, the Lessor may ask for clarification of the Programme and Budget and put forward proposals for consideration by the Technical Advisory Committee for the revision of specific features thereof relating to the kind and cost of the works and operations.

In the absence of such proposals, the Annual Work Programme and Budget shall be deemed to have been approved by the Lessor.

- 5.3 Each Annual Programme and Budget and any revision or amendment thereof shall be consistent with the requirements for minimum work and expenditure for the relevant phase of the exploration stage set out in Article 3.
- 5.4 If the Lessee and Lessor fail to reach agreement on proposed revisions to the Annual Work Programme and Budget within ten (10) Business Days of the meeting scheduled to consider the matter(s) in issue, then such matter(s) shall be referred to a Sole Expert for determination.
- 5.5 The Lessor shall have the right to monitor the performance of the Annual Work Programme and Budget.
- 5.6 In the event of extraordinary circumstances not provided in the Annual Work Programme and Budget requiring immediate action, the Lessee may take all proper steps for the achievement of the objectives of the Agreement. Any resulting costs shall be included in the expenses referred to in section 3.1 of Annex C. The Lessor shall be forthwith notified of all modifications referred to above.

ARTICLE 6 - SURRENDER DURING THE EXPLORATION PERIOD - RELINQUISHMENT

- 6.1 Surrender
 - (a) Subject to the provisions of this Article, before the end of the Exploration Stage, the Lessee may at any time, by written notice which becomes effective thirty (30) Business Days after it has been served on the Lessor, surrender its exploration rights over the entire Contract Area or a part thereof consisting of one or more contiguous Elementary Blocks.
 - (b) In the event that the Lessee desires to surrender its rights to conduct Petroleum Operations in all of the Contract Area without having fulfilled all of its work and Minimum Expenditure Obligations for the then current Phase (or such work and expenditure obligations as may be agreed between the Lessee and the Lessor for any Exploration Stage Extension or Special Exploration Stage Extension) ("Additional Expenditure Obligations"), the Lessee shall pay to the Lessor, prior to the date of any surrender, a sum equal to the amount by which the Minimum Expenditure Obligation for the then current Phase and, if applicable, any Additional Expenditure Obligations exceeds the actual expenditure attributable to all work agreed in that Phase. The Lessor shall, in procuring satisfaction of such payment, be entitled to call any amount then outstanding under the Bank Guarantee.
 - (c) The Lessee may surrender its right, free of all obligations at the end of any phase of the Basic Exploration Stage provided it has fulfilled all its contractual obligations under this

Agreement (including its Work and Minimum Expenditure Obligations) up to the end of that Phase.

- (d) Without prejudice to its other liabilities and obligations under this Agreement, the Lessee's surrender shall not give rise to any claim by it against the Lessor in costs or damages.

6.2 Relinquishment

- (a) Where the Lessee has before the end of the First Phase of the Basic Exploration Stage given to the Lessor notice under Article 2.1(b), the Lessee shall, before the commencement of the Second Phase, relinquish a portion or portions of the Contract Area (providing they comprise a number of contiguous Elementary Blocks) so that the Contract Area retained is not more than seventy (70 %) of the Contract Area on the Effective Date.
- (b) Where the Lessee has before the end of the Second Phase of the Basic Exploration Stage given to the Lessor notice under Article 2.1(c), the Lessee shall before commencement of the Third Phase relinquish a portion or portions of the Contract Area (providing they comprise a number of contiguous Elementary Blocks) so that the Contract Area retained is not more than fifty (50%) of the Contract Area on the Effective Date.
- (c) When the Exploration Stage comes to an end in accordance with Article 2, the Lessee shall relinquish the entire Contract Area held by him save for any area for which, pursuant to Article 7, the Lessee has given notice to the Lessor that it will become an Exploitation Area.
- (d) When, pursuant to this Article, the Lessee surrenders or relinquishes part of the Contract Area, the remaining area or areas shall be rectangular in shape and constitute not more than two separate areas.
- (e) For the purpose of calculating the areas to be relinquished under paragraphs (a) and (b) of this Article 6.2, any area within the Exploitation Area, which has been delimited by the Parties under Article 7.6(a) of this Agreement, shall be excluded.

6.3 Clean-up

Prior to surrender or relinquishment of the Contract Area or any part of it, the Lessee shall,

- (a) in accordance with practices customary in the international petroleum industry, perform any necessary clean-up activities including removal of any facilities and equipment installed by the Lessee, in order to restore such area as nearly as possible to the original condition that existed on the Effective Date;
- (b) fulfill its obligations under Articles 9.1 and 9.2; and
- (c) take action necessary to prevent hazards to environment, human life or property.

ARTICLE 7 - DISCOVERY: EXPLOITATION STAGE

- 7.1 Where the Lessee makes a Discovery of Hydrocarbons in the Contract Area it shall inform the Lessor promptly by notice in writing and forthwith cause tests to be made in connection with the Discovery in order to determine the extent to which the Discovery is potentially of commercial interest. The results from those tests together with a technical evaluation thereof shall be submitted to the Lessor as soon as the tests and technical evaluation have been completed.
- 7.2 Where the Lessee makes a discovery of any mineral in the Contract Area which is not a Hydrocarbon, it shall inform the Lessor promptly by notice in writing.
- 7.3 Save in the event that the Lessee informs the Lessor when test results are submitted that the Discovery does not merit appraisal, or does not merit appraisal until further exploration drilling has taken place in the Contract Area, the Lessee shall, when the tests referred to in Article 7.1 are completed, prepare and submit to the Lessor for approval an Appraisal Programme relating to the Discovery. Within two (2) Months from the date on which the Appraisal Programme is submitted to the Lessor, the Lessor will approve the Appraisal Programme unless, after its review by the Technical Advisory Committee, the Lessor determines that the Appraisal Programme is unlikely to satisfy the requirements of Article 7.5 (a) to (e). In that event, if the Lessor and the Lessee are unable to agree appropriate changes to the Appraisal Programme, the matter or matters in dispute will be referred to a Sole Expert for determination in accordance with Article 23.
- 7.4 When an Appraisal Programme has been completed, the Lessee will inform the Lessor by a notice in writing whether the Discovery is commercially exploitable, and the determination of the Lessee in that regard shall be conclusive.
- 7.5 A notice in writing under Article 7.4 shall be accompanied by a report on the Discovery containing particulars of:-
- (a) The chemical composition, physical and thermodynamic properties and quality of Hydrocarbons discovered;
 - (b) The thickness and extent of the production strata;
 - (c) Petrophysical properties of the Hydrocarbon Reservoir formations;
 - (d) The Hydrocarbon Reservoir's productivity indices for the wells tested at various rates of flow;
 - (e) Permeability and porosity of the Hydrocarbon Reservoir formation;
 - (f) Estimate of the production capacity of the Hydrocarbon Reservoir;

- (g) Feasibility studies and technical and economic evaluations carried out by or for the Lessee in relation to the Discovery;
- (h) Evaluation of the Hydrocarbon Reservoir and adjoining areas; and
- (i) Additional geological data and other relevant information relating to the Discovery.

7.6 Where the Lessee by notice in writing under Article 7.4, has informed the Lessor that the Discovery is commercially exploitable:-

- (a) as soon as possible thereafter, the Lessor and the Lessee will meet and, subject to the limitations set out in paragraph 9 of article 5 of the Hydrocarbons Law, will delimit by mutual agreement the Exploitation Area in respect of the Discovery so as to include, in a single area, the Hydrocarbon reservoir in respect of which the notice was given under Article 7.4, together with a reasonable margin surrounding the periphery of that area. In the event that the Lessor and the Lessee are unable, within sixty (60) calendar days from the date of the notice under Article 7.4, to agree on the boundaries of the Exploitation Area, either the Lessor or the Lessee may refer the matter for determination by a Sole Expert in accordance with Article 23.
- (b) Without prejudice to the provisions of Article 2.3(b), the Lessee will prepare and submit to the Lessor, not later than 6 Months from the date of the notice given under Article 7.4, a Development and Production Programme in respect of the Discovery. The Development and Production Programme shall be consistent with the requirements of the Presidential Decree, be prepared on sound engineering and economic principles in accordance with Good Oilfield Practices and be designed to ensure:-
 - (i) the optimum economic recovery of Hydrocarbons by the efficient, beneficial and timely use of the hydrocarbon resources of the Exploitation Area; and
 - (ii) adequate measures for the protection of the environment in conformity with accepted standards prevailing in the international petroleum industry, and taking account of the particular characteristics of the Contract Area.
- (c) Without prejudice to the generality of the requirements set out in Article 7.6(b), the Development and Production Programme will contain the following particulars:-
 - (i) Feasible alternatives for the development and production of the Discovery, including the method for disposition of Associated Gas;
 - (ii) Proposals relating to the spacing, drilling and completion of production and injection wells, the production and storage installations and transport and delivery facilities required for the production, storage and transport of Hydrocarbons. The proposals will include the following information:-
 - (A) estimated number of production and injection wells;

- (B) particulars of production equipment and storage facilities;
 - (C) particulars of feasible alternatives for transportation of the Hydrocarbons including pipelines;
 - (D) particulars of installations and other technical equipment required for the operations;
- (1) The Production Profiles for Crude Oil and Natural Gas from the Hydrocarbon Reservoirs;
 - (2) Specific steps which the Lessee proposes to take during production in accordance with Good Oilfield Practices to prevent pollution and to restore the environment when the Exploitation Stage terminates;
 - (3) Cost estimates of capital and recurrent expenditures;
 - (4) Economic feasibility studies carried out by or for the Lessee in respect of the Discovery taking into account the location, the water depth (where applicable), meteorological conditions, cost estimates, the price of Hydrocarbons and any other relevant data; and evaluations thereof;
 - (5) Safety measures to be adopted in the course of the Exploitation Operations, including measures to deal with emergencies;
 - (6) Estimate of the time required to complete each phase of the Development and Production Programme; and
 - (7) The delivery point for the delivery of the Lessor's In-Kind Royalty.

- 7.7 At or before the time the Development and Production Programme is submitted to the Lessor, the Lessee, if so requested by the Lessor and in addition to the EIS prepared in accordance with Article 12, make available to the Lessor an environmental impact study prepared by a third party (approved by the Lessor) with expertise in the field of international environmental studies, for the purpose of assessing the effects of the proposed development on the environment, including its effect on human beings, wild life and marine life in and around the Exploitation Area. This environmental impact study shall, as a minimum, address the matters referred to in Article 12.6.
- 7.8 Within two (2) Months from the date on which the Development and Production Programme was submitted to the Lessor, the Lessor will approve the Programme unless the Lessor, after review of the Programme by the Technical Advisory Committee, determines that the Programme does not satisfy the requirements of Article 7.6(b). In that event, if the Lessor and the Lessee are unable to agree appropriate changes to the Development and Production Programme, the matter or matters in dispute will be referred to a Sole Expert in accordance with Article 23.
- 7.9 The opinion of the Sole Expert shall be binding on the parties with the effect that:-

- (a) if the Sole Expert is of the opinion that the Development and Production Programme as submitted by the Lessee meets the requirement of Article 7.6 (b), the Development and Production Programme shall be deemed to have been approved by the Lessor;
- (b) if the Sole Expert is of the opinion that the Development and Production Programme does not meet the requirements of Article 7.6(b), the Lessee shall, not later than sixty (60) calendar days from the date on which the expert has given his opinion, either re-submit the Development and Production Programme amended to take account of the opinion of the Sole Expert or surrender the Exploitation Area; and
- (c) where the Lessee has re-submitted the Development and Production Programme, amended as aforesaid, the Development and Production Programme, as so amended, shall be deemed to have been approved by the Lessor within one week after receipt by the Lessor.

ARTICLE 8 - DURATION AND EXPIRATION OF THE EXPLOITATION PERIOD

- 8.1 Subject to the possibility of an extension pursuant to paragraph 13 of article 5 of the Hydrocarbons Law, the duration of the Exploitation Stage for each Exploitation Area shall be twenty five (25) years from the date on which a notice was given by the Lessee to the Lessor under Article 7.4 (twenty five (25) plus two (2) extensions of five (5) years each).
- 8.2 The Lessee may at any time unconditionally surrender 100% of its exploitation rights over any one (1) or more or over all of the Exploitation Areas created under the terms of Article 7.6, by serving notice upon the Lessor (90) calendar days in advance. Such surrender shall give the Lessee no claim whatsoever against the Lessor in respect of costs or damages. Surrender by the Lessee of less than 100% of its exploitation rights in any Exploitation Area or surrender with conditions shall not be permitted but nothing in this paragraph shall be read or construed as prohibiting a Co-Lessee from withdrawing from the Agreement provided that its rights and obligations under this Agreement are assumed by the remaining Co-Lessees (or by a third party) according to Article 20 of this Agreement,
- 8.3 Upon the expiration of the Exploitation Stage in any Exploitation Area, the same shall revert, free and clear, to the State.
 - (a) The use of real property, which has been acquired pursuant to the provision of paragraphs 1 to 4, inclusive, of article 6 of the Hydrocarbons Law and paragraphs 1 to 5, inclusive, of article 11 of the same Law, and the ownership of moveable property, the value of which has been fully depreciated, shall be turned over to the Lessor ipso jure without the payment of any consideration.
 - (b) Real property which has not been acquired pursuant to the provision of paragraphs 1 to 4, inclusive, of article 6 of the Hydrocarbons Law and paragraphs 1 to 5, inclusive of article 11 of the same Law and movable property, the value of which has not been fully depreciated

shall be transferred to the Lessor at a fair market value, taking due account of the condition of each asset and making allowance for depreciation already recovered hereunder. In the event that agreement cannot be reached on a fair market value for any asset, the matter shall be referred for determination to a Sole Expert under Article 23.

- (c) In respect of the assets acquired by the Lessor under this Article, the Lessor shall bear no responsibility whatsoever to the lenders of the Lessee for any of the Lessee's debts and the Lessee hereby agrees to indemnify and hold harmless the Lessor against any such claims by its lenders. In the event that security has been granted in favor of any such lender, the Lessee is obliged to release the security before the property reverts to the State.
- (d) In respect of (a) and (b) above if, upon expiration of the Exploitation Stage of any Exploitation Area, any such real property and/or assets are still required by the Lessee for its Petroleum Operations in other Exploitation Area(s) in the Contract Area, the Parties shall meet to agree if, to what extent and under what conditions such transfer to the State shall occur so as to allow the Lessee to conduct its Petroleum Operations in the remaining Exploitation Area(s).

8.4 Unless the Lessor states otherwise not later than 6 Months prior to the expiration of the Exploitation Stage, the Lessee shall, in accordance with Good Oilfield Practices and Environmental Laws, be obliged to:

- (a) plug all producing wells and known water zones;
- (b) remove all installations; and
- (c) restore the environment in accordance with the proposals set out in the Development and Production Programme, the EIS and any further environmental impact study prepared pursuant to Article 12.

8.5 A committee shall be formed, in accordance with the provisions of paragraph 1 of Article 8 of the Presidential Decree, for the monitoring and coordination of work to ensure the fulfillment of the Lessee's obligations under paragraphs (b) and (c) of Article 8.4 ("The Committee for the Removal and Disposal of the Installations"). This Committee shall comprise three (3) members. One member shall be appointed by the Lessor, one by the Lessee and the third member, who shall be the President of the Committee, shall be appointed by the two already appointed members, jointly. This third member shall be selected from persons who are independent of the Lessor and the Lessee and have experience on matters of Good Oilfield Practices in the international petroleum industry. If the two members fail to agree on the third member of the Committee within thirty (30) calendar days of their appointment, either the Lessor or the Lessee shall be entitled to request the selection and the appointment of the third member by the Sole Expert.

- (a) The time when the Committee for the Removal and Disposal of the Installations shall be empowered to act shall be determined by the mutual agreement of the Lessor and the Lessee, which shall be reached upon the commencement of the Exploitation Stage.
 - (b) The Committee shall examine all technical, legal, environmental and fiscal matters related to the removal of the installations and may, at its discretion, request the assistance of specialists on such subjects.
 - (c) The Committee shall decide in accordance with the opinion of the majority of its members, and its decisions shall be binding upon the Lessor and the Lessee. The Committee's decision is subject to the approval of the Minister.
 - (d) The Committee's expenses shall be paid by the Lessee and shall be debited to the Lessee's Income and Expenditure Account.
- 8.6 The Lessee, in order to cover the expenses which will be required for the operations referred to in this Article 8, shall open a special account in a bank or banks legally operating in Greece in accordance with the provisions of Article 8.2 of the Presidential Decree. Into such account it shall annually deposit amounts so as this fund, plus any accrued interest, is developed to be the Lessee's special reserve for the fulfillment of its future obligations to remove the installations. The procedure and all relevant details for these periodic deposits shall be mutually agreed upon the commencement of the production of each Exploitation Area. If no agreement is reached, the matters in issue shall be referred to the Sole Expert for final determination.
- (a) The time when the special reserve shall be used as well as the necessary amounts and the time when the Lessee shall deposit them, shall be determined by decision of the Committee for the Removal and Disposal of the Installations.
 - (b) Any funds accumulated in the special reserve, without the relevant interest, shall be debited to the Lessee's Income and Expenditure Account.
- 8.7 The obligations to remove installations will be suspended following the consent of the Minister for whatever period of time such installations are considered necessary for the performance of the Lessee's operations in the Contract Area or in another contract area, in accordance with the provisions and the procedure laid down in paragraph 4 of Article 10 of the Hydrocarbons Law.
- 8.8 The provisions of Article 8.4 shall apply *mutatis mutandis* where the Lessee is declared to have forfeited pursuant to paragraphs 8 to 11 (inclusive) of Article 10 of the Hydrocarbons Law or where the Lessee surrenders its exploitation rights pursuant to paragraph 14 of Article 5 of the same Law and Article 8.2. The provisions of Articles 8.6 and 8.7 shall also apply, *mutatis mutandis*, if the Committee for the Removal and Disposition of Installations has not been established, where such forfeiture or surrender has taken place.

ARTICLE 9 - CONDUCT OF PETROLEUM OPERATIONS IN THE CONTRACT AREA- OBLIGATIONS OF THE LESSEE

9.1 The Lessee will carry out Petroleum Operations in the Contract Area:-

- (a) in accordance with:
 - (i) the Hydrocarbons Law and other applicable provisions of Greek Law, including but not limited to regulations made under paragraph 1 of article 12A of the Hydrocarbons Law; and
 - (ii) the Presidential Decree which in accordance with paragraph 29 of article 2 of the Hydrocarbons Law is applicable to this Lease Agreement;
- (b) diligently, in accordance with Good Oilfield Practices, and in a safe workmanlike manner and, in respect of Petroleum Operations in any Exploitation Area, in compliance with the Development and Production Programme for that area.

9.2 Without prejudice to the generality of the foregoing the Lessee, in accordance with such regulations as may be prescribed from time to time, will:-

- (a) take all reasonable measures to control the flow and to prevent loss in any form or waste of Hydrocarbons above or under the ground during drilling, producing, gathering, distributing or storage operations;
- (b) take whatever practical measures are necessary to prevent any injurious ingress of water or damage of any kind to any Hydrocarbon-bearing formation which may be encountered while drilling operations are in progress, or upon abandonment of any well and shall carefully locate and preserve any fresh water sources discovered in the course of such operations;
- (c) take all precautions against fire and any unwarranted wasting of Hydrocarbons or water;
- (d) upon completion of the drilling of a well, inform the Lessor when the well will be tested and the production rate ascertained;
- (e) except in instances where multiple producing formations in the same well can be produced economically only through a single tubing string, refrain from producing Hydrocarbon from multiple oil carrying zones through one string of tubing at the same time, except with the prior written approval of the Lessor;
- (f) if the Lessor, acting reasonably, has determined that works or installations erected by the Lessee may endanger the physical safety of third parties or their property or cause pollution or other environmental damage harmful to people, animals or vegetation, take, as may be required by the Lessor, remedial measures and repair damage to the environment;

- (g) effect and maintain for Petroleum Operations insurance coverage of the type, and in such amount as is customary in the international petroleum industry in accordance with Good Oilfield Practices, and, on request, furnish to the Lessor certificates evidencing that such coverage is in effect when such future surrender takes place. The said insurance shall, without prejudice to the generality of the foregoing cover those matters described in Annex E;
- (h) require its contractors and sub-contractors to carry insurance of the type and in such amount as is customary in the international Petroleum industry in accordance with Good Oilfield Practices; and
- (i) indemnify, defend and hold the Lessor harmless against claims, losses and damages of any nature whatsoever, including, without limitation, claims for loss or damage to property, injury or death to persons or damage to the environment caused by or resulting from Petroleum Operations conducted by or on behalf of the Lessee, provided that the Lessee shall not be held responsible to the Lessor under this provision for any loss, claim, damage or injury caused by or resulting from any negligent action or willful misconduct of personnel employed by the Lessor or from action done at the direction of the Lessor.

9.3 The Lessee shall promptly notify the Lessor of any serious events within the Contract, Area or of any serious damage to the installations capable of impeding the performance of the Annual Work Programme and Budget. If acts or omissions on the part of the Lessee its agents or servants, involve liability of the Lessor towards third parties, it shall indemnify and hold harmless the Lessor in respect of all such liability.

9.4 The Lessee shall, before drilling any exploration or Appraisal Well:

- (a) notify the Minister and also in the case of an offshore area, the Ministers of National Defence and of the Mercantile Marine:
 - (i) at least three (3) Months before the spudding of an Exploration Well: and
 - (ii) at least one (1) week before the spudding of an appraisal well;
- (b) submit to the Lessor an application for consent to drill as set forth in Annex D:
 - (i) at least three (3) Months before the spudding of an Exploration Well; and
 - (ii) at least one (1) week before the spudding of an appraisal well.

9.5 Where the Lessee has, for the purpose of implementing a Development and Production Programme relating to one or more Exploitation Areas, constructed a pipeline or pipelines, the Lessee shall on the application of the Lessor and subject always to technical compatibility and available capacity, in respect of which the Lessee shall at all times have absolute priority, make its pipeline available to transport the Hydrocarbons of the Lessor or of Independent Third Parties. The Hydrocarbons aforesaid shall be transported by the Lessee on reasonable terms and

conditions and, where agreement on such terms cannot be reached by the Lessee and the Lessor, or as the case may be, the Lessee and an Independent Third Party within one hundred and twenty (120) calendar days of the commencement of discussions, the issue or issues in dispute shall be referred to an Sole Expert for determination under Article 23.

- 9.6 Three (3) Months before the beginning of each Calendar Year, the Lessee shall submit to the Lessor a statement showing the anticipated production of Hydrocarbons and By Product(s) for the following Calendar Year and their expected values. Three (3) Months prior to the anticipated commencement of first regular production of the Hydrocarbons and By-Products, the Lessee shall submit a similar statement covering the period to the end of the then current Calendar Year.

ARTICLE 10 - CONDUCT OF PETROLEUM OPERATIONS IN THE CONTRACT AREA- RIGHTS OF THE LESSEE

- 10.1 The Lessee shall have the exclusive right to carry out Exploration and Exploitation Operations in the Contract Area and, subject to Article 4, to manage and control such operations.
- 10.2 Subject to the provisions relating to the safety of installations, representatives of the Lessee, its personnel, and the personnel of its contractors and of their sub-contractors may enter the Contract Area and have free access to all installations of the Lessee.
- 10.3 Subject to the provisions relating to joint title where royalties are taken in kind as set out in Article 13, each Co-Lessee, according to its interest in this Agreement, shall have unencumbered title at the wellhead to all Hydrocarbons Produced and Saved in the Contract Area.
- 10.4 The Lessee, its contractors and their sub-contractors shall be entitled to freely re-export any items they import into the country.
- 10.5 The Lessee shall be entitled to sell, within or outside the country, equipment, as well as materials resulting from the dismantling of installations no longer in use by notifying the Lessor within 2 Months of the objects to be sold and the asking prices thereof.
- 10.6 No Governmental Authority shall grant to any third party any Hydrocarbons prospecting license in the Contract Area (or any part of it) to collect seismic and other data with the view to assessing its oil and gas potential without the prior written consent of the Lessee.

ARTICLE 11 - UNITIZATION

- 11.1 If a Hydrocarbons Reservoir extends beyond the limits of the Contract Area of the Lessee into the contract area of another lessee, upon the invitation of the Minister the Lessee shall (jointly with the lessee of the adjoining contract area) prepare and submit to the Minister within the time specified by the Minister a unitization programme of exploration and exploitation of the Hydrocarbons Reservoir. If such a unitization programme is not submitted within the applicable timeframe, the Minister shall prepare such a programme and the Lessee shall perform and observe all the terms and conditions thereof, failing which the Lessor shall be entitled to terminate this Agreement in accordance with paragraph 15 of Article 5 of the Hydrocarbons Law.
- 11.2 If a Hydrocarbons Reservoir extends beyond the limits of the Contract Area of the Lessee into an area where the Minister has the exclusive rights of exploration and exploitation, upon invitation by the Minister, the Lessee shall prepare a joint development plan for the exploration and exploitation of the Hydrocarbons Reservoir. Following the submission of a joint development plan, the Lessor shall proceed in accordance with paragraph 15 of Article 5 of the Hydrocarbon Law.
- 11.3 As from the date when the Minister invites the Lessee to prepare a unitization program in accordance with Article 11.1, or a joint development plan in accordance with Article 11.2, the time limits set for the fulfillment by the Lessee of its contractual obligations shall be suspended only insofar as the obligations are solely and directly related to matters arising under the unitization process described in this Article 11.

ARTICLE 12 - ENVIRONMENTAL PROTECTION

- 12.1 All terms in this Article 12 will be considered according to the legislation in force, unless otherwise provided herein.
- 12.2 The Lessee shall:
- (a) conduct all Petroleum Operations in a manner which will assure the protection of environment in accordance with Good Oilfield Practices;
 - (b) carry out all Petroleum Operations in full compliance with:
 - (i) the Environmental Laws;
 - (ii) the approved Strategic Environmental Assessment (SEA);
 - (iii) the Terms of Environment (ToE) resulting from the relevant Environmental Impact Assessment (EIA) procedure; and
 - (iv) any additional Environmental Action Plan (EAP),

pursuant to this Article and Good Oilfield Practices, while ensuring that such operations are properly monitored;

- (c) employ modern and appropriate techniques in accordance with Good Oilfield Practices, for preventing any environmental damage that might be caused by the Petroleum Operations, and for minimizing the environmental impacts of the Petroleum Operations and works within the Contract Area and in adjoining or neighboring or more distant areas;
 - (d) properly and timely implement any Laws in force regarding the safety of Hydrocarbons exploration and production activities during the period of Petroleum Operations;
 - (e) procure that the documentation on environmental compliance in conducting Petroleum Operations, such as SEA, ToE or EAPs and associated documents are made available to its employees and to its contractors and their subcontractors to develop adequate and proper awareness of the measures and methods of environmental protection to be used in conducting Petroleum Operations; and
 - (f) ensure that any agreement between the Lessee and its contractors and their subcontractors relating to the Petroleum Operations shall include the terms as set out in this Article 12 and any established measures and methods for the implementation of the Lessee's obligations in relation to the environment under this Agreement.
- 12.3 The Lessee undertakes for the purposes of this Agreement to take all necessary and adequate steps:
- (a) to fully and timely fulfill all requirements of applicable Environmental Laws; and
 - (b) to prevent environmental damage to the Contract Area and neighboring or more distant areas being caused by Petroleum Operations.
- 12.4 If the Lessor has on reasonable grounds reason to believe that any works or installations erected by the Lessee or any operations carried out by the Lessee are endangering or may endanger persons or any property of any other person or are causing pollution or are harming wildlife or the environment to a degree which the Lessor deems unacceptable, the Lessee may take remedial measures within such period as may be determined by the Lessor and may repair any damage to the environment, the costs of such remedial action to be borne by the Lessee. If the Lessor deems it necessary, it may require the Lessee to discontinue Petroleum Operations in whole or in part until the Lessee has taken such remedial measures or has repaired any damage.
- 12.5 The measures and methods to be applied by the Lessee for purposes of complying with the terms of this Article 12 shall be determined in timely consultation and agreed with the Lessor prior to the commencement of the relevant Petroleum Operations, and whenever there is a significant change in the scope or method of carrying out Petroleum Operations, and the Lessee shall take into account Good Oilfield Practices as well as the relevant requirements of the ToE.

- 12.6 Pursuant to the above 12.2(a) provision, the Lessee shall prepare and submit to the competent governmental authority, an Environmental Impact Study (EIS) for the relevant Petroleum Operations in respect of which an EIA procedure is required. The EIS shall, as a minimum:
- (a) fully comply with the requirements of the EIA legislation in force;
 - (b) meet the requirements and guidelines set out by SEA; and
 - (c) be prepared by a third party with adequate expertise in the field of environmental studies, which will be appointed by the Lessee to work on its behalf.
- 12.7 Each project, work, activity or any other part of the Petroleum Operations that is subject to an EIA, shall commence only after the ToE have been approved.
- 12.8 Any modification, expansion, improvement or modernization of a project, work, activity or any other part of the Petroleum Operations with approved ToE, requires compliance with the relevant provisions of EIA legislation. The same applies for the renewal (time extension) of the ToE decision.
- 12.9 In case of activities for which an EIA is not mandatory but nevertheless it is reasonably expected that some minor environmental impacts may occur, as in particular for the case of seismic surveys, the Lessee shall prepare an EAP, to determine, assess and mitigate these impacts, focusing on prevention and minimization thereof in accordance with Good Oilfield Practices.
- 12.10 The EAP shall be submitted to the Lessor for review and must be complied with by the Lessee.
- 12.11 The Lessee shall include in each Annual Work Programme and Budget to be submitted to the Lessor, an environmental report on the work to be undertaken as provided in that document, as well as on the work undertaken in accordance with the preceding Annual Work Programme and Budget.
- 12.12 Before carrying out any drilling activities, the Lessee shall fully meet the requirements of the applicable legislation for safety, contingency (i.e. oil spill, fire, accident, emissions etc.) and major hazard management plans.
- 12.13 In the event of any emergency or accident arising from Petroleum Operations affecting the environment, the Lessee shall immediately notify the Lessor, giving details of the incident and immediately implement the relevant contingency plan. In dealing with any emergency or accident affecting the environment, the Lessee shall at all times take such action as is prudent and necessary in accordance with the Environmental Laws and Good Oilfield Practices in the circumstances.
- 12.14 The Lessee shall not be liable for any environmental condition or damage existing in the Contract Area prior to the commencement of the Lessee's operation therein and nothing in this Agreement shall be construed to hold the Lessee liable in relation to any such pre-existing condition of damage. For this purpose, a baseline report shall be prepared by the Lessee, to detail the

condition of the environmental parameters and resources at the time prior to operation commencement. The baseline report shall be submitted for review to the Lessor. If no objections will rise by the latter within twenty (20) Business Days, the report is deemed accepted.

ARTICLE 13 - ROYALTIES

- 13.1 In accordance with the Presidential Decree, the Lessee shall pay to the Lessor a Royalty on all Hydrocarbons and By Products Produced and Saved in the Contract Area. The Royalty shall be calculated and payable in accordance with the provisions of this Article 13.

For the purposes of this Article 13:

“Actual In-Kind Royalty” means, in respect of the First Period or any subsequent Calendar Quarter, the In-Kind Royalty determined in accordance with Article 13.5.(b);

“Actual Production” means, in respect of the First Period or any subsequent Calendar Quarter, the total quantity of Hydrocarbons and By Products Produced and Saved from the Contract Area during that First Period or that Calendar Quarter, as the case may be, as set out in a statement prepared by the Lessee in accordance with Article 13.7 and Section 5 of Annex C (the **“Exploitation Statement”**);

“Cash Royalty” means any Royalty the Lessor elects to take in cash in accordance with Article 13.3;

“Cash Royalty Calculation Date” means each of the following dates: (i) in respect of the First Period, and in respect of each subsequent Calendar Quarter, that date which is thirty (30) calendar days after the commencement of the next Calendar Quarter; and (ii) the date of termination of this Agreement;

“Cash Royalty Payment Date” means each of the following dates: (i) in respect of the First Period, and in respect of each subsequent Calendar Quarter, that date which is forty-five (45) calendar days after the commencement of the next Calendar Quarter, and (ii) the date of termination of this Agreement;

“Cumulative Gross Inflows” means, in respect of the First Period or any subsequent Calendar Quarter, the cumulative gross value of:

- (a) Hydrocarbons and By Products Produced and Saved (as determined under the provisions of Article 16) from the Contract Area;
- (b) sales of assets acquired for use in connection or associated with the Petroleum Operations; and
- (c) the net proceeds of the transactions described in paragraph 3.6 of Annex C, any other income in connection or associated with Petroleum Operations including, but not limited to,

tariff income derived from the construction and operation of pipelines to convey each Co-Lessee's Hydrocarbons and By-Products, whether such income is due to the Co-Lessee or its Affiliate Enterprise income derived for the generation of electrical power and income resulting from any insurance policy or indemnity, for all years from the date of first commercial production up to and including the last day of that First Period or subsequent Calendar Quarter, as the case may be. For the purposes of this definition, gross value means the value prior to the deduction of any Royalty, taxes, duties or other fiscal impositions, transportation, handling, agency or any other costs or expenses of any nature whatsoever.

"Cumulative Total Outflows" means, for the First Period and all subsequent Calendar Quarters, the cumulative sum of all Exploration Costs, Exploitation Costs, Operating Costs and other deductible costs referred to in Section 3 of Annex C for all periods from the Effective Date up to and including the last day of that First Period and each subsequent Calendar Quarter, as the case may be;

"Estimated In-Kind Royalty" means, in respect of the First Period or any subsequent Calendar Quarter, the estimate of the In-Kind Royalty for such period, as determined in accordance with Article 13.5.(a);

"Estimated In-Kind Royalty Calculation Date" means each of the following dates: (i) in respect of the First Period, such date (as agreed between the Parties) which is at least two (2) Months prior to the estimated date of first commercial production; and (ii) in respect of each subsequent Calendar Quarter, such date (as agreed between the Parties) which is at least two (2) Months prior to the first day of that Calendar Quarter;

"Estimated Production" means in respect of the First Period and each subsequent Calendar Quarter, the Lessee's estimate of the total quantity of the Hydrocarbons and By Products to be Produced and Saved from the Contract Area during such period;

"Estimated R Factor" means, in respect of: (i) the First Period and the next Calendar Quarter, the Lessee's estimate of what the R Factor will be for each such period; (ii) the second Calendar Quarter after the First Period, the R Factor for the First Period; and (iii) each subsequent Calendar Quarter, the R Factor for that Calendar Quarter which immediately preceded the immediately preceding Calendar Quarter;

"Estimated Royalty Percentage" means, in respect of the First Period and in respect of each subsequent Calendar Quarter, the Royalty Percentage for such period calculated by reference to the Estimated R Factor for that period;

"First Period" means, that period from the date of the notice sent by the Lessee to the Lessor in accordance with Article 7.4, informing the Lessor that a Discovery is commercially exploitable up to the commencement of that Calendar Quarter which immediately succeeds the date of first commercial production;

"In – Kind Royalty" means any Royalty the Lessor is deemed to elect to take in – kind in accordance with Article 13.3;

"In-Kind Royalty Calculation Date" means each of the following dates: (i) in respect of the First Period and each subsequent Calendar Quarter that date which is thirty (30) calendar days after the commencement of the next Calendar Quarter; and (ii) the date of termination of this Agreement;

"Royalty Percentage" means, in respect of the First Period and in respect of each subsequent Calendar Quarter, that percentage, calculated by reference to the R Factor, such that, if the R Factor in respect of such period is:

- a) lower than or equal to 0.5, the Royalty Percentage shall be 2%;
- b) higher than 0.5, but lower than or equal to 1, the Royalty Percentage shall be 5%;
- c) higher than 1, but lower than or equal to 1.5, the Royalty Percentage shall be 8%;
- d) higher than 1.5, but lower than or equal to 2, the Royalty Percentage shall be 11%;
- e) higher than 2, but lower than or equal to 2.5, the Royalty Percentage shall be 14%;
- f) higher than 2.5, but lower than or equal to 3, the Royalty Percentage shall be 17%;
- g) higher than 3 the Royalty Percentage shall be 20%;

"R Factor" means, in respect of the First Period and in respect of each subsequent Calendar Quarter, the product of: (i) Cumulative Gross Inflows for the First Period or that Calendar Quarter, as the case may be, divided by (ii) Cumulative Total Outflows for the First Period or that Calendar Quarter, as the case may be;

Regarding the calculation of the R factor: (i) Any amounts deposited in the special reserve for decommissioning or removal of installations and the rectification of the Contract Area (**"Abandonment"**) and if applicable, the total amount of actual expenses for Abandonment work not covered by the special reserve are considered and shall be treated as deductible costs. (ii) All costs and expenses, in relation to the loans to finance the Petroleum Operations, including but not limited to, interest and finance charges incurred by each Co-Lessee are not considered a deductible cost. (iii) Royalties are included in the denominator (Cumulative Total Outflows) of the R factor;

- 13.2 The Royalty to be paid by the Lessee to the Lessor shall be calculated as a percentage of the Hydrocarbons and By Products Produced and Saved from the Contract Area in respect of the First Period and each subsequent Calendar Quarter in accordance with the following provisions of this Article 13.
- 13.3 The Lessor may elect, in its absolute discretion, to take its Royalty in-kind (**"In-Kind Royalty"**), or in cash (**"Cash Royalty"**) or in a combination of both in respect of any Calendar Year. If the

Lessor wishes to take all or part of the Royalty as a Cash Royalty the Lessor shall advise the Lessee of its intention in writing not less than ninety (90) calendar days before the commencement of each Calendar Year (or for the first Calendar Year in which Hydrocarbons are produced, at least two (2) Months prior to the estimated date of first commercial production). The Lessor shall also specify the percentage of Royalty entitlement it intends to take as a Cash Royalty during that year (or in respect of the first Calendar Year in which Hydrocarbons are produced, during the remaining part of that Calendar Year). If the Lessor does not elect to take all or part of the Royalty as a Cash Royalty, in respect of any Calendar Year the Lessor shall be deemed to have elected to take all of the Royalty as an In-Kind Royalty in respect of that Calendar Year. That proportion of the Royalty the Lessor is to take as a Cash Royalty shall be calculated and paid in accordance with Article 13.4. The proportion of the Royalty the Lessor is to take as an In-Kind Royalty shall be calculated and delivered in accordance with Article 13.5.

13.4 If, in respect of any Calendar Year, the Lessor elects to take any part of its Royalty as a Cash Royalty, the following provisions shall apply:

- (a) The Cash Royalty (if any) in respect of the First Period and each subsequent Calendar Quarter shall be calculated on the Cash Royalty Calculation Date in respect of the First Period or that subsequent Calendar Quarter, as the case may be, and shall be paid by the Lessee to the Lessor on the Cash Royalty Payment Date in respect of the First Period or that subsequent Calendar Quarter, as the case may be.
- (b) On the Cash Royalty Calculation Date in respect of the First Period and on the Cash Royalty Calculation Date in respect of each subsequent Calendar Quarter, the Lessee shall determine the amount of the Cash Royalty for such period by:
 - (i) determining the R Factor and then the Royalty Percentage in respect of the First Period or that subsequent Calendar Quarter, as the case may be;
 - (ii) multiplying the Royalty Percentage determined in accordance with Article 13.4. b(i) above by the Actual Production for the First Period or that Calendar Quarter, as the case may be;
 - (iii) multiplying the amount determined in accordance with Article 13.4.(b) (ii) by a percentage which is equal to the percentage of the Royalty for that Calendar Year for which the Lessor has elected to take Cash Royalty in accordance with Article 13.3; and
 - (iv) calculating the cash value of the amount determined in accordance with Article 13.4.(b) in accordance with Article 16.

13.5 If, in respect of any Calendar Year, the Lessor is deemed to elect to take any part of its Royalty as an In-Kind Royalty, the following provisions shall apply:

- (a) On the Estimated In-Kind Royalty Calculation Date in respect of the First Period and each subsequent Calendar Quarter, the Lessee shall: