IUSCT Case No. 39

PHILLIPS PETROLEUM COMPANY IRAN V. THE ISLAMIC REPUBLIC OF IRAN, THE NATIONAL IRANIAN OIL COMPANY

AWARD (AWARD NO. 425-39-2)

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29 June 1989

Tribunal:
Robert Briner (President)
George H. Aldrich (Appointed by the claimant)
Seyed Khalil Khalilian (Appointed by the respondent)

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Award (Award No. 425-39-2)

1. The Claims in this Case were brought by Phillips Petroleum Company Iran, a Delaware corporation, ("the Claimant") for compensation for the alleged taking in 1979 by the Respondent Islamic Republic of Iran ("Iran") of the Claimant's rights under a 1965 contract with the Respondent National Iranian Oil Company ("NIOC") for the exploration and exploitation of the petroleum resources of a certain area offshore in the Persian Gulf ("Joint Structure Agreement" or "JSA") and for damages for the alleged breach and repudiation of the same contract, also in 1979. These two Claims are stated in the alternative, except to the extent that damages are sought for breaches allegedly occurring prior to the date of the alleged taking, which the Claimant asserts occurred on 29 September 1979. The Claimant seeks U.S. $162,716,108, plus interest and costs.

2. The Respondents have presented seven counterclaims. The first, for damages for alleged bad oil field practices, is divided into seventeen separate sub-claims. The second counterclaim is for damages for alleged breach of contract by the Claimant in the preparation and submission of commerciality reports on the two oil fields discovered in the area covered by the Joint Structure Agreement. The third counterclaim is for money allegedly owed by Phillips Petroleum Company ("Phillips"), the parent corporation of the Claimant, for crude oil purchased from NIOC under a contract dated 19 June 1979. The fourth counterclaim is for money allegedly owed by the Claimant to Iranian Marine International Oil Company ("IMINOCO"), the operating company established by the parties to the Joint Structure Agreement, in connection with the provision of services by the Claimant to IMINOCO. The fifth counterclaim is for damages for alleged breach of contract for the sale by Phillips to IMINOCO of certain goods. The sixth counterclaim is for various taxes allegedly due from the Claimant and IMINOCO and for 1978 Stated and Additional Payments allegedly due to NIOC. The seventh counterclaim is for indemnification by the Claimant of the Respondents for one-half of any amounts awarded by the Tribunal in other cases as liabilities of IMINOCO to the claimants in those cases. The total amount sought on the counterclaims is U.S. $1,221,475,954, plus interest.

I. THE FACTS

3. The history of the Claimant's investment at issue in the present Case begins with the Iranian Petroleum Act of 1957, which authorized NIOC to enter into agreements with foreign and Iranian companies for the development of Iranian petroleum resources. Pursuant to this Act, NIOC issued on 1 April 1963 a "pre-announcement" stating its intention to open to exploration, development, and exploitation certain defined areas of the Persian Gulf and, on 1 September 1964, an "announcement" opening those areas and soliciting proposals for joint structure agreements from certain firms, including Phillips, that had participated in seismic surveys and had been designated by NIOC. On 30 July 1964, Phillips entered into an agreement ("Operating Agreement") with AGIP, an Italian company, to work together to submit a proposal to NIOC for a joint structure agreement in part of that area. On 26 August 1964, that agreement was amended to add a third party, the Oil and Natural Gas Commission of India ("Commission"). The three parties submitted a proposal to

NIOC in October 1964. Negotiations ensued with NIOC, and the Joint Structure Agreement was signed on 17 January 1965 covering four blocks in the Persian Gulf.[1] As required by the Petroleum Act, the JSA was approved first by the Council of Ministers of the Iranian Government and then by the Iranian Legislature, which in February 1965 enacted a law approving the JSA, along with four other contracts between NIOC and various other companies. The JSA became effective on 13 February 1965.

4. The JSA was signed by all four parties and stated in the preamble that it was between NIOC as "First Party" and AGIP, Phillips, and the Commission, collectively referred to as "Second Party, it being expressly understood that the rights and benefits of Second Party are owned by the above entities individually in undivided interests." Each of the three companies forming the "Second Party" were required by Article 4 of the JSA to register in Iran pursuant to Iranian laws and regulations concerning the registration of companies doing business in Iran. Article 12, paragraph 2, of the JSA stated that the three entities comprising the Second Party "shall each jointly and severally be responsible for the performance of all the obligations undertaken and for the full payment of all taxes, dues, charges and all other payments under this Agreement," and Article 30 of the JSA set forth detailed provisions concerning calculation of the income tax liability of "each of the entities comprising Second Party." Except for those provisions, all rights and obligations established by the JSA were stated in terms of the First Party and the Second Party, rather than in terms of the individual companies.

5. It should be noted that, early in 1965, Phillips, with the approval of NIOC, assigned its rights and obligations under the JSA to the Claimant, which was and is Phillips' wholly-owned subsidiary, and the Commission assigned its rights and obligations to its subsidiary Hydrocarbons India Private Ltd. ("HIL"), and those subsidiaries became, along with AGIP, the entities comprising the Second Party under the JSA. Those three entities and NIOC, acting pursuant to Articles 5 and 6 of the JSA, promptly created IMINOCO as a non-profit joint stock company to carry out all operations under the JSA and registered it in Tehran on 5 May 1965. The JSA (Article 6) specified that NIOC and the Second Party would each have half of the stock of IMINOCO and the right to appoint half of the members of the Board of Directors and specified that the Chairman of the Board shall be a Director nominated by NIOC and that the Vice-Chairman and the Managing Director shall be directors nominated by the Second Party. According to Article 23 of IMINOCO's Statutes, the Managing Director was the chief executive officer of the company, supervising and conducting its day-to-day business and affairs.

6. Many provisions of the JSA are relevant to the issues in the present Case and will be examined in more detail in the discussion of those issues. However, the essence of the arrangements made by the JSA may be gleaned from the following provisions.

7. The preamble states that NIOC "desires to expand the production and export of Iranian petroleum, thereby increasing the benefits accruing to Iran, and to accomplish the said results with all possible expedition" and declared that the "Second Party has the capital, technical competence, and management skills necessary for carrying out the operations hereinafter specified, and in particular the requisite market outlets for the sale of such Petroleum as may be discovered." The

[1] NIOC entered into several other joint structure agreements with other parties, some of which were or still are at issue in other cases before the Tribunal; see Arco Exploration, Inc. (Case No. 20), Sun Company, Inc. (Case No. 21), Murphy Middle East Oil Company and National Iranian Oil Company, Award No. 272-22-1 (28 November 1986), Union Oil Company of Iran and National Iranian Oil Company, Award No. 273-23-1 (28 November 1986) and Amoco Iran Oil Company (Case No. 55).

preamble also provides that "the Parties intend that the provisions of this Agreement shall be carried out in a spirit of good faith and good will."

8. Article 29 obligates the Second Party to pay a cash bonus to NIOC of U.S. $34,000,000 within 30 days and to expend a minimum of U.S. $48,000,000 in petroleum operations under the JSA during the following twelve years. In this connection, Article 16 establishes certain minimum drilling obligations, and Article 12 makes clear that the Second Party must bear the entire cost of exploratory operations and "exert its utmost efforts to explore the Area to the maximum extent consistent with good petroleum industry practice." According to Article 2 of the 26 August 1964 Amendment to the Operating Agreement, the Claimant was responsible for one-third of all Second Party expenditures.

9. Article 3 requires periodic relinquishment of percentages of the authorized area after five and ten years and of all areas in which commercial production is not achieved within twelve years.

10. Article 15 provides that the exploration stage, in which the Second Party bears all the costs, ends with respect to a field when the Second Party reports to NIOC that it has completed the first commercial well, as defined in that Article. At that point the development and exploitation phase began, in which each Party is liable for half of the costs, although NIOC is entitled to require the Second Party to advance NIOC's share, subject to later repayment with interest, until such time as commercial production begins from that field. During the development and exploitation phase, further drilling is to be undertaken as necessary to furnish the basis for a "commerciality report" by the Second Party with respect to each field discovered. NIOC is to consider such reports and to determine whether a field was "commercial" in the sense that "the quantity of Petroleum reasonably foreseen as derivable therefrom is such that delivery of Petroleum at the seaboard shall be possible" on a basis that a profit of not less than 25% of the applicable Posted Price will be obtainable after deducting costs and other amounts as specified in Article 15, paragraph 5.

11. Paragraph 9 of Article 15 states that NIOC and the Second Party "jointly shall assume the responsibility for all expenditure" subsequent to the date of commencement of "Commercial Production", which is defined in Article 33, paragraph 2, as "the date on which there shall have been sold and delivered as regular exports 100,000 cubic meters of Petroleum produced from the part of the Area concerned."

12. The petroleum production and sale obligations of the Parties are set forth in Articles 13 and 21 of the JSA. Article 13 provides in part:

    The Parties hereto, acting through IMINOCO, at their Joint cost and expense shall be subject to the following obligations:

    1. To exert their utmost efforts to develop any discovered fields to the maximum extent consistent with good petroleum industry practice and having due regard at all times to the market availability to extract such Petroleum as shall be discovered at a rate ensuring that such part of the discovered reserves as may be economically extracted and sold by the utilization of the most up-to-date methods and practices of the petroleum industry shall be fully extracted during the term of the Agreement; and in particular to observe sound technical and engineering principles in conserving the deposits of hydrocarbons and in general in carrying out the operations authorized under this

Agreement....

Article 21, paragraph 1, provides:

Each Party shall exercise its utmost efforts in order to ensure the sale of the maximum possible quantity of Petroleum economically justified.

13. Article 13, paragraph 7, requires NIOC and the Second Party to be "always mindful, in the conduct of their operations, of the rights and interests of Iran."

14. Article 23, paragraph 1, provides that petroleum produced "shall be owned at the well head" fifty percent by NIOC and fifty percent by the Second Party. Article 21, paragraph 2(c), states that "IMINOCO shall supply to First and Second Parties such quantities of Petroleum as they may require in fulfilment of their sales contracts and market requirements in accordance with Article 22." Article 22, paragraph 1, provides:

The determination of the quantities of Petroleum to be supplied to First Party and to Second Party as laid down in Article 21, Section 2(c) shall be effected in the following manner:

IMINOCO shall bring to the notice of First and Second Parties its estimate of production prepared in accordance with Article 21 Section 2. Each Party may take from IMINOCO one half of the quantity available for export and may purchase any part of the other half to the extent that the other Party may not elect to take the quantity available to it.

Paragraph 2 of Article 22 goes on to state that "Any Party having lifted more than its share of 50 percent in any calendar year shall be deemed to have purchased from the other Party one half of the difference in volume between the respective liftings..." and sets forth a payment formula. Petroleum not available for export is dealt with in Article 25, which provides that IMINOCO shall supply to NIOC crude oil needed for internal consumption within certain limits which, in no case, can exceed ten percent of total annual production under the JSA and that any such supplies will come equally from oil owned by NIOC and by the Second Party. The Article also establishes a price formula for payments by NIOC to the Second Party for oil it supplies.

15. In addition to the Second Party's obligation to pay half the expenses of the production operations, including half of IMINOCO's requirements, which were expressed as periodic "cash calls" to both First and Second Parties, the Second Party is obligated by Article 29, paragraph 8, to pay to NIOC annual rentals for the areas used for commercial production.

16. Articles 30 through 32 deal with taxation and exemption from import duties. Article 2, paragraph 1, exempts the JSA from stated payments required by Iranian law. However, these provisions were amended several times in ways, consistent with the changes insisted upon contemporaneously by all OPEC member countries, that changed and substantially increased the payments due to NIOC and Iran. Beginning in August 1973, NIOC and the Ministry of Finance started to charge the Claimant and the other entities comprising the Second Party stated payments and to increase the income tax by demanding additional payments. After various increases, the stated payment was, as of 1 November 1974, set at 20 percent and the total of income tax and additional payment at 85

percent. The Claimant initially made the payments in excess of the original 55 percent income tax under protest. In 1975, the Second Party companies entered into negotiations with NIOC over the increased payments and any other necessary modifications of the JSA. In October 1977, the Parties agreed, inter alia, to amend the relevant provisions of the JSA so that, with retroactive effect to 1 November 1974, the Claimant and the other entities comprising the Second Party were liable for a stated payment of 20 percent and an additional payment of 30 percent to NIOC, in addition to the 55 percent statutory income tax that had been in effect from the inception of the JSA. The 85 percent total of tax and additional payment applied to income after deduction of cost and stated payment. Each of the Second Party entities was permitted to deduct from its taxable income its costs, expenses and charges incurred by it directly or through IMINOCO, including rental payments, the conduct of operations under the JSA, and amounts for depreciation of capital expenditures and amortization of the bonus payment and exploration expenditures. As a result, the bonus and most of the exploration payments had been amortized for tax purposes by 1979.

17. Both NIOC and the Second Party are obligated by Article 13, paragraphs 5 and 6, to minimize the employment of non-Iranian personnel by IMINOCO and to conduct training and education programs for Iranian personnel "with a view to ensuring the gradual and progressive reduction of foreign personnel".

18. With respect to the term of the JSA, Article 16, paragraph 3, provides for termination after 12 years if commercial production is not achieved, and Article 33 provides for a 25 year term from the date of commencement of commercial production, renewable for another 5 years at the option of the Second Party, with "respect of each of the areas in which commercial exploitable fields shall have been discovered...."

19. The consequences of termination are set forth in Article 34, as follows:

1. Upon expiry or termination of this Agreement, IMINOCO shall be liquidated, and the moveable properties of the Joint Structure shall be sold and the proceeds thereof distributed between the Parties in equal shares.

2. All fixed assets as well as lands shall be transferred free of charge to First Party.

20. Article 36, paragraph 1, which deals with force majeure provides, inter alia, for the extension of the term of the JSA in the event of prolonged force majeure occurrences. It states:

Where any force majeure occurrence beyond the reasonable control of Second Party or IMINOCO renders impossible or hinders or delays the performance of any obligation or the exercise of any right under this Agreement, then:

(a) This failure or omission of Second Party or IMINOCO, to perform such obligation shall not be treated as a failure or omission to comply with this Agreement and,

(b) The period whereby such performance or such exercise is delayed shall be added to any relevant periods fixed by this Agreement, and,

(c) If the duration of such occurrence is not less than one year, this Agreement shall automatically

be extended for a period equal to the duration of such occurrence, without prejudice to any right to further extensions under this Agreement.

21. Article 35 restricts the Second Party's rights to transfer "all or any part of its interest in the rights acquired and the obligations undertaken by it under this Agreement" to a non-affiliated company by requiring written approval by NIOC, which needed to obtain prior confirmation of the Council of Ministers, and the approval of the Legislature.

22. Articles 37 and 43 contain provisions relevant to guarantee of performance and continuity and the applicability of certain laws. Those Articles provide as follows:

ARTICLE 37

Guarantee of Performance and Continuity

1. The Parties undertake to carry out the terms and provisions of this Agreement in accordance with the principles of mutual good will and good faith and to respect the spirit as well as the letter of the said terms and provisions.

2. The confirmation of this Agreement by the Council of Ministers as provided for by Article 2 of the Petroleum Act shall be regarded as acceptance by the Iranian Government of all such obligations as by the terms of this Agreement are laid upon the Government, including any acts to be performed or any consents to be given by it.

3. Measures of any nature to annul, amend or modify the provisions of this Agreement shall only be made possible by the mutual consent of both Parties.

4. If the functions of the First Party are transferred to another entity under the control of or responsible to the Iranian Government, such entity shall assume all the obligations of First Party under the Agreement. If First Party ceases to exist and its functions are not transferred to another entity under the control of or responsible to the Iranian Government, all the obligations of First Party under this Agreement shall be the direct obligations of the Iranian Government.

5. The Ministry of Finance may take any action or give any consent on behalf of the Iranian Government which may be necessary or convenient under or in connection with this Agreement or for its better implementation and any action so taken or consent so given shall be binding upon the Government. All Iranian authorities shall implement all such instructions as the Ministry of Finance shall give them in connection with the execution and administration of this Agreement and such authorities shall have full power and authority to do so. If the Ministry of Finance should for any reason no longer exercise its powers and authority under this Article, such power and authority shall be exercised by such other Ministry or agency as the Council of Ministers shall designate.

ARTICLE 43

Inconsistency with Other Laws

1. This Agreement is made pursuant to the Petroleum Act and in respect of any matter where this Agreement is silent, the provisions of the Petroleum Act shall apply.

2. The provisions of the Mining Act of 1957 shall not be applicable to this Agreement, and any other laws and regulations which may be wholly or partly inconsistent with the provisions of this Agreement shall to the extent of any such inconsistency be of no effect in respect of the provisions of this Agreement.

23. As noted above, the Parties formed IMINOCO soon after the JSA entered into force and conducted all their operations through IMINOCO. IMINOCO began a seismic survey in the spring of 1965, and further surveys and exploratory drilling from 1965 to 1969 led to the relinquishment of three of the four blocks covered by the JSA and to the discovery of two fields in the remaining block, called block "R". The discoveries were named the Rostam field and the Rakhsh field. The Second Party submitted the required commerciality report on Rostam in 1967 and on Rakhsh in 1969. NIOC reviewed the reports and declared the fields commercial, Rostam on 11 March 1968 and Rakhsh on 14 December 1969. An active development phase followed for each of the two fields, during which platforms were constructed, wells drilled, and pipelines laid. Commercial production began in Rostam on 19 September 1969 and in Rakhsh in February 1971. Thus, in accordance with Article 33 of the JSA, the Second Party's rights (including the optional 5-year renewal) extended to 19 September 1999.

24. From the beginning of commercial production in each field, NIOC and the Second Party each paid 50 percent of the costs of IMINOCO's operations pursuant to "cash calls" by IMINOCO. Decisions by IMINOCO's eight-man Board of Directors were required to be taken by majority vote [2], which meant that both NIOC and the Second Party, each of which nominated four Directors, had a veto over decisions. While Article 7 of the JSA, by reference to Article 12 of the Iranian Petroleum Act of 1957, provided a mechanism for the avoidance of a voting impasse at general meetings of IMINOCO, that mechanism did not apply to the Board, and there is, in any event, no evidence that this mechanism ever proved necessary or was resorted to in the case of IMINOCO. It appears that decisions by IMINOCO's Board were in practice taken by agreement of Directors nominated by both NIOC and the Second Party. Apparently, the Claimant always had one of its representatives as a Director, as did HIL, while AGIP had two, including the Managing Director.

25. The staff of IMINOCO was primarily Iranian, and the percentage of Iranian nationals increased over the years. [3] While the Claimant had assigned a few of its employees to IMINOCO in earlier years, after 1975 none of the Claimant's personnel was employed by IMINOCO. It appears that, by 1978, of approximately 400 employees of IMINOCO, only about 20 were expatriates, including the Italian Managing Director selected from the Directors nominated by and representing AGIP. The Claimant alleges that AGIP did much of the exploratory drilling and that, after the Claimant's nominee as operations manager was replaced in 1974 by a nominee of NIOC, the Claimant's role in the process was limited largely to performance of contract work for IMINOCO, particularly in the field of mathematical modeling, participation of its nominee on the Board of Directors, payment of

[2] By Article 22 of the Statutes of IMINOCO.

[3] Article 13, paragraph 6, of the JSA required the Parties to reduce the number of foreign personnel in such manner that after ten years from the effective date of the JSA (i.e. by February 1975) this number would not exceed two percent of total staff, and that the top executive positions occupied by non-Iranians should not exceed 49 percent of the total of such positions available.

one-sixth of the "cash calls" and rents, and taking and marketing of one-sixth of the exportable petroleum, accompanied, of course, by payment to NIOC and Iran of the requisite stated and additional payments and taxes.

26. Each of the two fields contained several reservoirs at different depths. In the Rostam field, these were known as the Mishrif, the Shuaiba, the Arab A-1, and the Arab C reservoirs. The Rakhsh field had the same reservoirs except for the Arab A-1. In many cases the same wells were used to tap several reservoirs. Total production through 1978 from the two fields was 191,633,629 barrels of oil of which 99,734,226 barrels had been produced from Rostam and 91,899,403 barrels had been produced from Rakhsh. The most prolific reservoirs were the Rostam-Shuaiba and the Rakhsh-Arab C.

27. Each field had reached its peak production rate within the first few years of production and then declined significantly. Rostam peaked at approximately 70,000 barrels per day ("b.p.d.") in 1970, and Rakhsh peaked at approximately 55,000 b.p.d. in 1972. The decline in production rates thereafter was apparently a result of the nature of the natural production drives, and IMINOCO took measures designed to limit this decline, such as the installation of centrifugal submersible pumps in wells and the use of acid to fracture reservoir rock. By 1978, the two fields together were producing at a generally stable rate of approximately 40,000 b.p.d. In addition, IMINOCO had done considerable planning work for possible additional recovery efforts by means of water injection, called secondary recovery, although the Second Party had insisted on thorough studies and had resisted early implementation of these projects. Nevertheless, by 1979, the IMINOCO Board had approved final plans for a water injection project in the Rakhsh Arab C reservoir, the first two injection wells for that project had been completed, and the IMINOCO Board had approved a pilot project for the Rostam Shuaiba reservoir; but, as of the events in 1979 giving rise to the present Claim, IMINOCO was not yet in a position to begin secondary recovery efforts.

28. The facilities that were in place by late 1978 included, in the Rostam field: two drilling platforms, one production platform for oil separation, one services platform, one flare structure, an 18-inch subsea pipeline connecting the drilling platforms, and a second 18-inch subsea pipeline to shore on Lavan Island, a distance of approximately 108 kilometers; and in the Rakhsh field: one drilling platform, one production platform, one services platform, one flare structure, a stripping tower to absorb hydrogen sulfide, and an 18-inch subsea pipeline to the Rostam production platform, a distance of approximately 28 kilometers, for connection to the line to Lavan Island. On Lavan Island, there were gas separation facilities, storage tanks, residential and shop facilities, and a loading dock and terminal shared with another and unrelated company, LAPCO.[4] IMINOCO drilled 27 development wells in the Rostam field and 15 in the Rakhsh field.

29. Throughout the period from the commencement of commercial production until the end of 1978, NIOC and each of the companies forming the Second Party dealt directly with IMINOCO in arranging for exports, or "liftings" as such exports were called, of oil produced under the JSA in accordance with the following procedures. First, IMINOCO would calculate well in advance of each quarter of the year the amount of oil anticipated to be available for liftings and the entitlements of each of the four parties. These entitlements often differed somewhat from the agreed percentages

[4] LAPCO was the operating company set up by NIOC and four United States companies in early 1965 pursuant to another joint structure agreement. The alleged taking of the rights of these companies under that agreement was or is at issue in Cases No. 20, 21, 22 and 23; see supra, note 1.

(one-half for NIOC and one-sixth for each of the companies comprising the Second Party) because of over or under liftings in prior quarters. Forty days prior to the beginning of a quarter, each of the four parties would notify IMINOCO of its requirements for the quarter, which could not exceed its entitlement. If the total stated requirements were less than the amount of oil anticipated to be available, then the difference would be made available to the parties that had stated requirements equal to their entitlements. More detailed monthly lifting schedules with ships and dates identified were then coordinated by each party with IMINOCO.

30. During the autumn of 1978, as revolutionary pressures increased, many strikes occurred in Iranian commerce and industry. The leaders of the Revolutionary movement called upon workers in the oil industry in particular to cut off exports of oil on which the Iranian Government depended for foreign exchange. The IMINOCO production workers struck for only one week, from 6 to 13 November 1978, and then resumed work, but IMINOCO nevertheless soon had to reduce and ultimately to cease production because of strikes by LAPCO workers on Lavan Island, which prevented IMINOCO's oil from being loaded onto tankers. As a result, the available storage tanks became full, and production had to be halted on 16 December.

31. On 19 December 1978, the 117th meeting of the IMINOCO Board of Directors took place, the Claimant's member apparently being represented by proxy, and approved, inter alia, expenses for the first quarter of 1979 related to normal production operations, the Rakhsh water injection (secondary recovery) project, the Rostam Shuaiba pilot water injection project, and certain maintenance activities. Although Board meetings were normally held monthly, it appears that, due to revolutionary developments, the next Board meeting did not occur until April 1979.

32. Soon after the December 1978 Board meeting, the Managing Director, Mr. Trampini, and the other expatriate employees of IMINOCO left Iran for extended leaves until such time as revolutionary violence subsided and production could be resumed.

33. On 29 January 1979 IMINOCO, apparently along with other Iranian oil producers, received a letter from Mehdi Bazargan on behalf of a Council of the Islamic Revolution that Imam Khomeini had appointed in France on 12 January 1979 to examine conditions for the establishment of a transitional government and to make all necessary preliminary arrangements. The letter stated that the Imam had sent a message to the Council agreeing to the production of oil for internal consumption within Iran on condition of its not being exported. The letter added that the Council expected IMINOCO to cooperate by not exporting oil.

34. On 20 February 1979, soon after the success of the Revolution and the formation of the Islamic Republic, a new Chairman and Managing Director of NIOC was appointed, Dr. Hassan Nazih. During the following week, Mr. Trampini and eleven other expatriate IMINOCO employees returned to Iran and resumed their duties. On 27 February, Dr. Nazih announced to the press that oil exports would resume on 5 March.

35. On 14 March 1979, NIOC lifted 530,000 barrels of stored IMINOCO oil and sold it to a Japanese purchaser. That release of storage capacity permitted IMINOCO to resume production, which occurred on 20 March, and 228,000 barrels were produced by the end of the month.

36. From the time production resumed, the Claimant, apparently along with AGIP and HIL, while not

submitting formal nominations, made oral requests to be permitted to resume liftings of IMINOCO oil, none of which was granted. At the annual meeting of IMINOCO in April, the Second Party representatives pointed out that the priority for taking all liftings during the first 4 months of 1979 had been reserved to NIOC, and they made a formal request to take IMINOCO's entire liftings beginning in May until the entitlements of the two Parties were equal. The representatives of NIOC said they considered that subject outside the purpose of the general meeting and suggested that the views of the Second Party regarding liftings in 1979 "could be discussed with First Party on another occasion". The record in this Case does not indicate that such discussions were held, either at the Board meetings in May or June, which dealt only with routine matters, or outside the Board prior to the September meeting with a NIOC sub-commission discussed infra. However, it is clear that none of the Second Party companies was permitted to lift any oil in 1979 or thereafter and that all Iranian oil exports were sold by NIOC.

37. On 19 June 1979, Phillips (the parent corporation of the Claimant) entered into a contract with NIOC for the purchase of Iranian crude oil which provided that for the period 1 July to 31 December 1979 it would receive 5,000 barrels per day. Counterclaim No. 3 in this Case relates to alleged non-payment by Phillips for an October delivery of 26,607 metric tons of oil pursuant to that contract. It seems clear that NIOC was concluding similar contracts with other oil companies at the same time.

38. A week later, on 26 June 1979, the three Second Party companies sent the following joint letter to NIOC:

> We wish to draw your attention to some particular aspects of the situation in which we find ourselves as IMINOCO Second Party.
>
> Upon the resumption of IMINOCO operations last March after approximately four months idleness, you requested us verbally to temporarily cease second party nomination and liftings of our equity crude oil.
>
> Although aware of the oil supply crisis impending over the world, Second Party accepted NIOC's request and gave NIOC priority in lifting IMINOCO crude oil.
>
> At IMINOCO shareholders' meeting on April 28, we stated our requirements concerning the problem of liftings, and we expressed our intention to begin Second Party liftings from May in order to balance both Parties' liftings in 1979.
>
> At the same meeting the First Party proposed that the matter be discussed with NIOC at a separate meeting. Second Party declared its prompt availability for such meeting with the recommendation that the meeting be held as soon as possible so that we could arrive at a solution before July 9, 1979. The settlement of this issue would be necessary so that Second Party would have sufficient funds to make the payment to NIOC for 1978 Additional & Stated Payments.
>
> While waiting for your invitation to a Joint 1st and 2nd Party meeting, Second Parties have continued to supply their share of cash call funds to IMINOCO, as they did during the whole period of stoppage of IMINOCO operations even though the non-liftings resulted in a loss of revenue to Second Parties.
>
> To date, the situation is still this: First Party is lifting all of IMINOCO production and Second Party

from December 1978 onwards has borne 50% of the costs without receiving its due share of crude oil either in kind or in the form of repayments by the First Party.

With a view to seeking a solution which would allow both Parties to go on provisionally, we have studied closely the matter and take this opportunity to propose that IMINOCO continue to operate as follows:

1. NIOC will continue to lift through 1979 all the crude oil produced and will pay to Second Party 50% of all 1979 liftings on a monthly basis based on the prevailing market price.

2. If NIOC so desires, each Second Party entity will purchase from NIOC up to one third of 50% of 1979 IMINOCO production under a separate purchase contract.

Such mechanism, of a very simple application, would serve to remove the abnormal situation which exists between both Parties at present. This type of agreement would not require any particular negotiations except those concerning the crude oil purchase contract.

As it is plain to see, this mechanism would permit Second Party to resume the cash supply, which would then enable us to make to NIOC Additional and Stated Payment relevant to 1978.

Further in order to facilitate meeting IMINOCO cash calls starting from July 1 onward, each Second Party entity would be pleased to authorise First Party to withhold from amounts due Second Party pursuant to point 1 above all amounts necessary to meet cash calls for approved expenditures.

We are prepared to discuss the matter at your convenience in order to seek agreement to this proposal and any other provisional arrangement of mutual interest.

No answer was ever given to that letter, but IMINOCO made no further cash calls to the Second Party after the month of June.

39. During 1979, the Claimant paid IMINOCO U.S. $2,300,000 in cash calls through June 1979 and U.S. $91,000 in prepaid rentals for the period to September 1980. It did not make the 1978 Stated and Additional Payments that were due in 1979 which totaled U.S. $8,700,000. The Claimant continued to receive production reports from IMINOCO until September, but not thereafter. In that connection, it appears that NIOC directed that production be limited to a rate of approximately 30,000 barrels per day until August, when production was increased and exceeded 40,000 barrels per day.

40. On 29 May 1979, Dr. Nazih of NIOC appointed a committee of seven persons to "supervise and execute the affairs of the affiliated companies [including IMINOCO], until the situation of their contracts are clarified, with cooperation of those board members of the subject companies that are in Iran."

41. In late July 1979, IMINOCO's Managing Director, Mr. Trampini, left Iran on vacation. On 1 August, NIOC sent a telex signed by a Mr. Khalili to AGIP's other Board Member, Mr. Ricco, informing him that "Mr. Trampini [sic] service is no longer required in IMINOCO. Will advise other arrangements made." On 21 August, Mr. Ricco replied that "we are unable to agree on your position concerning

IMINOCO's Managing Director in the light of the existing contractual arrangement", and he proposed an early meeting of the Board of Directors. The contractual arrangements referred to was doubtless Article 6 of the JSA which provided that the Managing Director shall be a Director nominated by the Second Party.

42. On 11 August, the 45th meeting of the Board of Supervisors of NIOC decided that a sub-commission to be headed by Mr. Khalili should deal with each of the companies involved in joint structure agreements. The sub-commissions' instructions were set forth in a memorandum dated 27 August, addressed to Mr. Khalili and signed by Dr. Nazih, NIOC's Chairman and Managing Director. In substance, those instructions were to terminate the existing contracts with the Second Parties and to negotiate with the Second Parties new contracts for services and, if necessary, separate contracts for the sale of oil which should be "independent of the termination of the existing Agreements." On the same date, 27 August, an interview with Dr. Movahed, advisor to the Chairman of NIOC, appeared in the Middle East Economic Survey. Dr. Movahed was quoted as having said:

> The whole philosophy behind the oil joint-venture contracts has disappeared, so we have to redefine the position in the light of present day realities.
>
> He added that, with respect to the day-to-day operations, "we are managing completely on our own without foreign experts and we do not need them in these operations."

43. During the month of September 1979, Mr. Khalili and his sub-commission met with each of the joint structure Second Parties. The meeting with the IMINOCO Second Party occurred on 29 September. In that meeting, Mr. Khalili informed the Second Party companies that the JSA should be regarded as terminated because events had overtaken it. When asked about a response to the Second Party companies' letter of 26 June, he responded that it did not deserve an answer. While making clear that no liftings by the Second Party were possible, Mr. Khalili urged the companies to think carefully about their future relationships to NIOC and, in particular, what services they might be prepared to offer NIOC.

44. On 9 October, Mr. Khalili submitted a report to NIOC stating that he had carried out his instructions and that a further meeting with the Second Party companies was scheduled at their request for 28 October. Such a further meeting did not, however, take place with the IMINOCO Second Party companies,[5] and NIOC apparently refused to have any further IMINOCO Board meetings with the Second Party members of the Board of Directors. The record in this Case contains no further relevant communications between NIOC and the Second Party companies.

45. On 21 October, Dr. Sadegh Tabatebi, Assistant to the Prime Minister for Political Affairs, was quoted in the press as saying that the export of oil, its price, and the selection of purchasers are "totally under the control of the authorities of the Islamic Republic of Iran." Similarly, the Minister of Petroleum, Dr. Moinfar, was quoted in the press on 30 December as stating: "After the Revolution, practically we have not delivered a drop of oil to the second party."

46. On 8 January 1980 the Iranian Revolutionary Council approved the Single Article Act establishing a Special Committee to review the joint-venture petroleum contracts to determine whether they were inconsistent with the 1951 Law Nationalizing the Petroleum Industry. The outcome of that

[5] A further meeting apparently was held in October with the LAPCO Second Party companies.

review was promptly indicated when Dr. Moinfar gave an interview to the press and was quoted on 14 January as saying that the contracts entered into between NIOC and foreign companies for joint off-shore oil operations "are entirely inconsistent" with the 1951 Law and therefore, as a result of the Single Article Act, are "null and void ab initio."

47. On 31 July 1980, the Ministry of Petroleum issued a circular centralizing the affairs of the four joint venture companies, including IMINOCO, in a new company named the "Continental Shelf Oil Company of the Islamic Republic of Iran" to operate under the supervision of a Board of Directors appointed by the Ministry of Petroleum.

48. On 11 August 1980, Dr. Moinfar signed a letter to the Claimant stating that the Special Committee had declared the JSA null and void. [6] On 17 August 1980, the Ministry of Petroleum released a report on the performance of the subsidiary companies of the Ministry during the year 1358 (1979-80). As quoted in the press, the report said:

> Another important step taken has been to declare null and void the oil agreements signed with the Consortium and also with the joint ventures which existed in the form of foreign-affiliated oil entities. As mentioned earlier, all the operations related to them were assigned to the National Iranian Oil Company immediately after the revolution.

II. THE PROCEEDINGS

49. On 13 September 1982, the Tribunal held a "preliminary hearing on the issue of the jurisdiction of the Tribunal arising out of the nullification of oil agreements" in which the Parties in the present Case as well as the Parties in Case 55 participated. As a result of that Hearing and following deliberations that took into account the pleadings by the Parties, including a post-hearing note from the Respondents, the Tribunal issued Phillips Petroleum Company Iran and The Islamic Republic of Iran, Interlocutory Award No. ITL 11-39-2 (30 December 1982), reprinted in 1 Iran-U.S. C.T.R. 487. That Award held that the alleged nullification of the JSA did not affect the Tribunal's jurisdiction over the Claims in the present Case and, in particular: (a) that the January 1980 Iranian Single Article Act cannot be invoked to justify non-compliance with the Claims Settlement Declaration, [7] (b) that neither the clause in Article II, paragraph 1, excluding from the jurisdiction of the Tribunal claims arising under a contract providing for the exclusive jurisdiction of Iranian courts nor the reference in the same paragraph to the "Majlis position" affected jurisdiction in the present Case, and (c) that the Claims in the present Case were outstanding on 19 January 1981, as required by the Declaration.

50. On various occasions during the succeeding years, the Agent of the Islamic Republic of Iran or other representatives of the Respondents have asserted that this Chamber did not have jurisdiction to issue the Interlocutory Award, because the Full Tribunal had determined that it was to decide

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[6] A letter to the same effect and bearing the same date was written to AGIP and, according to the Claimant, to HIL. Similar letters were written to Second Party companies concerning the other joint structure agreements; see Case No. 20 for Arco Exploration, Inc., Case No. 21 for Sun Company, Inc. and Case No. 55 for Amoco Iran Oil Company.

[7] The Declaration of the Government of the Democratic and Popular Republic of Algeria Concerning the Settlement of Claims by the Government of the United States of America and the Government of the Islamic Republic of Iran of 19 January 1981 ("Claims Settlement Declaration").

those jurisdictional issues itself. There is no merit to any such assertion. While the President of the Tribunal at the time (Judge Lagergren) explained to the Respondents on several occasions why that is so, the Tribunal considers it appropriate to summarize the reasons in the present Award.

51. At the 41st meeting of the Full Tribunal, on 21 March 1982, the Tribunal heard the Agent of the Islamic Republic of Iran explain Iran's and NIOC's problems in meeting filing deadlines in certain oil-related cases, that is, those, including the present Case, where Iran planned a jurisdictional argument based on the nullification of the oil agreements and others where the Respondents planned a jurisdictional argument based on the separate nature of the Oil Service Company ("OSCO"). The Tribunal then decided to ask its legal assistants to examine the relevant cases and select one in each category, the OSCO Case to be heard in July and the nullification case in September. The legal assistants recommended Case 43 for the hearing on the OSCO issue, and Chamber One, to which that case had been assigned, issued an Order on 6 May 1982 relinquishing jurisdiction to the Full Tribunal, which heard the issue and issued Oil Field of Texas, Inc. and The Government of the Isalmic Republic of Iran, Interlocutory Award No. ITL 10-43-FT (9 December 1982), reprinted in 1 Iran-U.S. C.T.R. 347. With respect to the nullification issue, however, the legal assistants were unable to agree on a single Case, although they indicated the choice was between the present Case and Case 55 when the matter was reported to the Full Tribunal at its 54th meeting on 2 June 1982. At that point the Minutes of that meeting show that the President (not the Tribunal) decided to reserve dates in early October, instead of September, for a "possible hearing", and the Minutes add: "... it being understood that Chamber Two would schedule pre-hearing conferences in one or two nullification cases during the week previously reserved for the Full Tribunal hearing (week commencing 13 September 1982) and report the result to the Full Tribunal for its consideration."

52. On 15 June 1982, Chamber Two issued an Order in both Cases 39 and 55 setting 13 September 1982 as the time for a "Preliminary Hearing" on the jurisdictional issue. The term "Preliminary Hearing" had been selected deliberately by Chamber Two in order to indicate that the Chamber was preserving its flexibility either to decide itself the jurisdictional issues or to relinquish jurisdiction to the Full Tribunal for another hearing during October if the Chamber considered the issues sufficiently difficult to justify rehearing before the Full Tribunal. In the deliberations that followed the Preliminary Hearing, it soon became apparent that a majority believed the issues relatively simple and properly decidable by the Chamber. The Chairman of the Chamber (Judge Bellet) so reported to the President of the Full Tribunal, who cancelled the reservation of the 5th and 6th of October for a possible hearing.

53. On 8 October 1982, Judge Bellet reported to the Full Tribunal. He concluded his report by asking whether Chamber Two should relinquish jurisdiction over the jurisdictional issue to the Full Tribunal or decide the issue itself. He indicated that the Chamber believed it could properly deal with the issue itself. The President expressed the view that Chamber Two should keep the issue unless and until it found itself faced with such a difficult problem that relinquishment to the Full Tribunal would be justified. Judges Mangard, Holtzmann, Aldrich and Mosk agreed. Judges Kashani and Shafeiei disagreed. Chamber Two did not relinquish jurisdiction to the Full Tribunal in the present Case and, as noted above, issued its Interlocutory Award on 30 December 1982.

54. Article III, paragraph 1 of the Claims Settlement Declaration provides, inter alia:

Claims may be decided by the Full Tribunal or by a panel of three members of the Tribunal as the President shall determine.

Pursuant to that provision, President Lagergren issued Presidential Order No. 1 on 19 October 1981, and therein designated the three Chambers, directed that the claims filed under paragraph 1 of Article II of the Claims Settlement Declaration were to be distributed among the Chambers, reserved official claims and disputes or questions concerning interpretation of the Declaration to the Full Tribunal (later limited by Presidential Order No. 8 to disputes and questions under paragraph 3 of Article II and paragraph 4 of Article VI), and provided in paragraph 6 for possible relinquishment of cases by Chambers to the Full Tribunal.

The latter provision stated:

6. (a) Where a case pending before a Chamber raises an important issue the Chamber may, at any time prior to the final award relinquish jurisdiction in favour of the plenary Tribunal, and shall so relinquish jurisdiction when a majority for a decision or an award cannot be found within a Chamber.

(b) A Chamber may decide to relinquish jurisdiction to the plenary Tribunal at any time prior to the final award when the resolution of an issue might result in inconsistent decisions or awards by the Tribunal.

(c) The plenary Tribunal, having been seised of a case, may either retain jurisdiction over the whole case or may, after deciding the issue in question, transfer the case back to the Chamber which shall, in regard to the remaining part of the case, recover its original jurisdiction.

55. In practice, each Chamber has relinquished jurisdiction to the Full Tribunal over certain issues in a number of cases.[8] In all of these instances, the Chamber to which the claim in question was assigned issued an Order as the instrument by which it relinquished jurisdiction to the Full Tribunal. It is clear that no decision was ever taken by Chamber Two nor any Order issued to relinquish jurisdiction over the present Case to the Full Tribunal, and the Full Tribunal did not disagree with Chamber Two's desire to decide the jurisdictional issues itself. While it was thought for a time in the Spring of 1982 that the Full Tribunal might hear and decide a test case on the nullification issue, no such case was ever transferred to it, and by October 1982, it was clear that Chamber Two intended to decide these issues in Cases 39 and 55 and that neither the Full Tribunal nor the President wished to request Chamber Two to relinquish jurisdiction.

56. Following the issuance of the Interlocutory Award in the present Case, written pleadings were submitted by both Parties, and a Pre-Hearing Conference was held on 5 December 1985. As a result of that Conference, the Tribunal established a schedule for the submission of further written pleadings and the Hearing. The Hearing on all remaining issues in the Case was held from 30 March to 3 April 1987. Judge Bahrami Ahmadi, who participated in the Hearing, resigned effective 31 December 1987 and was replaced by Judge Khalilian who was appointed to the Tribunal by the Islamic Republic of Iran and assigned to this Chamber by President Bockstiegel in Presidential Order No. 58. Judge Bahrami Ahmadi informed the Tribunal that he would be unable to continue

[8] For example, Chambers Two and Three in the Forum Clause Cases Nos. 6, 51, 68, 121, 140, 159, 254, 293 and 466, Chamber One in Cases Nos. 43, 111, and 388, and Chamber Two in Cases Nos. 582 and 591.

to participate in the remaining deliberations and the Award in this Case as foreseen in Article 13, paragraph 5 of the Tribunal Rules. The Tribunal decided and informed the Parties by a Communication of 15 April 1988 that the continued participation of Judge Bahrami would not advance the orderly functioning of the arbitral process in this Case, that Judge Khalilian therefore succeeds Judge Bahrami as an arbitrator in this Case, and that, pursuant to Article 14 of the Tribunal Rules, the Hearing need not be repeated.

57. On 9 November 1988, in response to a request by Chamber Two for a confirmation of its jurisdiction, the Full Tribunal decided by a vote of six to three that Chamber Two had jurisdiction to make the decisions conveyed in that Communication of 15 April 1988.

58. A further procedural issue was raised when, on 22 June 1989, the Respondent NIOC submitted an additional and unrequested filing, attached to which were certain publicly available documents related to Phillips Petroleum Company, the parent corporation of the Claimant. The Claimant responded to this filing on 26 June 1989, urging, inter alia, its outright rejection and exclusion from the record. The Tribunal notes that NIOC's filing was made more than two and a quarter years after the Hearing in this Case, at the end of which the Chairman formally closed the proceedings and noted that no motions had been made for the filing of further evidence or submissions and that no such filings would be accepted unless so requested by the Tribunal. Under the circumstances, the Tribunal considers that NIOC's filing, coming as it does unrequested, and without explanation of its very considerable delay, especially since its attached documents were, for at least six years prior to the Hearing, publicly available, is clearly untimely and must therefore be rejected.

III. JURISDICTION

59. The Claimant presents evidence to show that it is a corporation organized under the laws of the State of Delaware, and that from its incorporation until the present time it has been a wholly owned subsidiary of Phillips Petroleum Company, another U.S. corporation similarly organized under Delaware law. Evidence has also been presented showing that at all relevant times more than fifty percent of the stock of Phillips Petroleum Company was held directly or indirectly by United States citizens. The Tribunal is satisfied that the Claimant is a U.S. national pursuant to Article VII, paragraph 1, of the Claims Settlement Declaration.

60. The Tribunal has previously determined that the Claim was outstanding on 19 January 1981. See Phillips Petroleum Company Iran, supra. Furthermore, the Tribunal is satisfied that the Claim was owned by the Claimant from the date it arose until 19 January 1981, in accordance with the requirements of the Claims Settlement Declaration.

61. The Claim is directed against the Islamic Republic of Iran and the National Iranian Oil Company over whom the Tribunal has jurisdiction in accordance with the Claims Settlement Declaration.

62. The Claimant bases its Claim on expropriation and breach of contract over which subject matters the Tribunal has jurisdiction pursuant to Article II, paragraph 1, of the Claims Settlement Declaration.

63. The only significant jurisdictional issue outstanding with respect to the Claim in this Case is whether the Claimant's involvement with AGIP and HIL, Italian and Indian entities respectively, deprives it of standing to bring a claim before this Tribunal.

64. The Respondents argue that the Claimant is precluded from bringing a claim as its involvement with AGIP and HIL in the Operating Agreement and the JSA, for the purposes of those agreements, was as a member of a partnership. Therefore, they contend, all rights arising under the JSA are joint rights which can only be invoked by the partnership jointly and cannot be asserted independently of AGIP and HIL. [9] The Claimant argues that there was no partnership and that it has an individual, separable interest under the JSA which entitled it to bring a direct claim pursuant to Article VII, Paragraph 1, of the Claims Settlement Declaration and, therefore, the question of locus standi does not arise.

65. The Claimant's alternative argument is that, even if there were a partnership, it was merely a de facto or ad hoc partnership and that it retains a right to bring an individual claim. It should be noted that the Respondents also do not contend that there was more than a de facto or ad hoc partnership.

66. Article 16.1 of the Operating Agreement provides that Swiss law governs the Agreement and the relationship of the Parties thereto. The Tribunal is satisfied that the arrangements between the parties to the Operating Agreement and those same entities that comprised the Second Party to the JSA constituted a societe simple in accordance with Articles 530-551 of the Swiss Code of Obligations (RS [10] 220). A societe simple is:

> a contractual relationship between two or more persons to attain a joint purpose with joint endeavors or means. [11]
>
> The formation of such a legal relationship does not result in the creation of a juridical entity capable of owning rights and duties. Furthermore, such a relationship has characteristics different from those of a partnership under common law. More specifically, the relationship has effect only with respect to those matters over which the parties have agreed they have a joint interest. Therefore it can also accommodate the individual interests and rights of the participants.

67. However, the Tribunal need not determine whether under Swiss law the individual members of the societe simple existing in this Case could bring an individual claim against a third party or indeed whether at the time this claim arose the societe simple still existed. A finding that a certain type of partnership or similar relationship existed under a particular municipal system of law with its own procedural and jurisdictional rules relating to locus standi, is, in itself, not determinative of a claimant's right to bring a claim before this Tribunal. [12]

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[9] A corollary of the Respondents' position is that any claim must be an indirect one and must therefore satisfy the requirements of Article VII, paragraph 2, of the Claims Settlement Declaration. On the basis of that provision, the Respondents maintain that the Claim would fail as the Claimant, with a one-third share, does not have a controlling interest in the Second Party. However, any consideration of this point is unnecessary in view of the Tribunal's decision, infra, as to the Claimant's right to bring a direct claim.

[10] Receuil systematique de droit federal (The official register of Swiss Federal law).

[11] Swiss Code of Obligations, Article 530, para. 1.

[12] Nor is the parties' own characterization of their relationship. See Article 18.1 of the Operating Agreement which contains an express disclaimer as to the creation of a "partnership of any kind, association or trust".

68. The primary bases for the Tribunal's jurisdiction are the provisions of the Algiers Declarations [13] and, in particular, the provisions of the Claims Settlement Declaration which establish the jurisdictional requirements which must be fulfilled in order to bring a claim. The Claims Settlement Declaration also directs the Tribunal, in Article V, to apply, inter alia, such "principles of commercial and international law as the Tribunal determines to be applicable."

69. While the general practice of international arbitral tribunals reflects the practice of many municipal systems in requiring a member of a partnership to bring suit in conjunction with other members of the partnership, there are also exceptions to that rule. [14] These include situations where application of the general rule would, because of foreign partners, result in a partnership being unable to pursue its claim. The Tribunal's practice similarly recognizes this general rule and the exceptions thereto. See Housing and Urban Services International, Inc. and The Government of the Islamic Republic of Iran, Award No. 201-174-1 (22 November 1985), reprinted in 9 Iran-U.S. C.T.R. 313 ("the Haus Award"). Both the Claimant and the Respondents invoke the Haus Award in support of their respective positions. The Respondents rely on the general rule. They argue that, in this Case, the arbitration clause of the JSA [15] provided an available forum to which the Claimant and "its partners" could refer for the resolution of disputes arising from the operation of the JSA, [16] including the one currently before this Tribunal. The Claimant, on the other hand, argues that its Claim, should the Tribunal find that a partnership exists, comes under the exception to the rule.

70. Although the facts of the Haus case are distinguishable from those currently before the Tribunal, [17] the legal principle stated in that case applies equally here:

> [w]hile international law seems to accept that as a rule a partner may not sue in his own name alone on a cause of action accruing to the partnership, where special reasons or circumstances required it, "international tribunals have had little difficulty in disaggregating the interests of partners and in permitting" partners to recover their pro rata share of partnership claims. [ ]The most relevant "special circumstance" in this sense exists when a partner's claim is for its own interest, which is independent and readily distinguishable from a claim of the partnership as such. (Footnote omitted). (See Haus Award, supra, at pp. 24-25).

71. With respect to the separability of the Claim, the Tribunal notes NIOC's apparent acknowledgement that, at least for some purposes, the Claimant's interest was distinguishable from similar rights held by AGIP and HIL. The Tribunal notes in this regard that the documents submitted by the Claimant relating to IMINOCO lifting procedures and allocations acknowledge the separate individual lifting programs for each of the four entities involved in the JSA; that the cash calls which financed the operations of IMINOCO were paid separately; and that the Respondents frequently sent communications, including various pieces of key correspondence, to the individual entities

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[13] The Declaration of the Government of the Democratic and Popular Republic of Algeria of 19 January 1981 ("General Declaration") and the Claims Settlement Declaration.

[14] E.M. Borchard, The Diplomatic Protection of Citizens Abroad, pp. 614-616 (1927); D.C. Ohly, A Functional Analysis of Claimant Eligibility, in International Law of State Responsibility for Injuries to Aliens, p. 291 (R.B. Lillich ed. 1983).

[15] JSA, Article 39.

[16] The Respondents seek to distinguish the Haus Case from the present Case by the absence of an alternative forum in Haus.

[17] In the Haus Award the Tribunal found that Iranian law was the governing law, that the relationship between the U.S. claimant and the non-U.S. party constituted a partnership under the Iranian Civil Code, and that the right to the benefits (payment) under the contract was enjoyed jointly.

comprising the Second Party. The Tribunal, therefore, is satisfied that this Case falls within the exception to the general rule as outlined in the Haus Award.

72. The Tribunal notes, moreover, that a contrary holding in the present Case would produce an inequitable result, as the Respondents' conduct has effectively extinguished the possibility of the Claimant pursuing its rights under the arbitration clause in concert with "its partners". Although, as the Respondents now argue, the JSA does expressly provide for a forum for the resolution of disputes,[18] the Tribunal notes that the notification of nullification under the Single Article Act, dated 11 August 1980, was communicated separately to Phillips and AGIP. Apparently, a similar separate notification was also sent to HIL. Further, the Respondents entered into and concluded separate settlement agreements with AGIP on 1 March 1982 and with HIL apparently some time in 1983.[19] Therefore the possibility of the Claimant pursuing its rights in concert with its partners under the arbitration clause of the JSA was extinguished. Acceptance of the Respondents' argument would entail the result that for all practical purposes the Claimant would be precluded from pursuing its Claim in any forum. While the separate settlement agreements were entered into with AGIP and HIL subsequent to the date of the Claims Settlement Declaration, the Respondents' own conduct since 1980, including the sending of separate notifications and the absence of any protest from the Respondents when the Claimant, AGIP, and HIL asserted and pursued their claims under the JSA independently of each other, showed that the Respondents considered each of the entities comprising the Second Party as having a separate and individual claim.

73. For the foregoing reasons, the Tribunal is satisfied that the Claimant has the requisite standing under the Claims Settlement Declaration to pursue an individual claim before the Tribunal, and the Tribunal finds that it has jurisdiction over this Claim.

74. Jurisdictional questions concerning the counterclaims will be dealt with in Section V.B. infra.

IV. THE MERITS OF THE CLAIM

A. Liability

75. The Claimant's principal contention is that the Respondents are liable for the expropriation of contract rights stemming from the JSA, and that, alternatively, they are liable for breach and repudiation of that contract. The Tribunal considers that the acts complained of appear more closely suited to assessment of liability for the taking of foreign-owned property under international law than to assessment of the contractual aspects of the relationship, and so decides to consider the claim in this light.

76. As the Tribunal has held in a number of cases, expropriation by or attributable to a State of the property of an alien gives rise under international law to liability for compensation, and this is so whether the expropriation is formal or de facto and whether the property is tangible, such as real estate or a factory, or intangible, such as the contract rights involved in the present Case. See, e.g.,

[18] It provides a forum inter partes and not for the individual entities comprising the Second Party.

[19] The Tribunal is not informed of the details of the terms of these settlements.

Starrett Housing Corporation and The Government of the Islamic Republic of Iran, Interlocutory Award No. ITL 32-24-1 (19 December 1983), reprinted in 4 Iran-U.S. C.T.R. 122, and Award No. 314-24-1 (14 August 1987), reprinted in 16 Iran-U.S. C.T.R. 112, Tippetts, Abbett, McCarthy, Stratton and TAMS-AFFA Consulting Engineers of Iran, Award No. 141-7-2 (29 June 1984), reprinted in 6 Iran-U.S. C.T.R. 219, Phelps Dodge Corp. and Overseas Private Investment Corp. and The Islamic Republic of Iran, Award No. 217-99-2 (19 March 1986), reprinted in 10 Iran-U.S. C.T.R. 121, and SEDCO, Inc. and National Iranian Oil Company, Interlocutory Award No. ITL 55-129-3 (28 October 1985), reprinted in 9 Iran-U.S. C.T.R. 248 and Award No. 309-129-3 (7 July 1987), reprinted in 15 Iran-U.S. C.T.R. 23.

77. The principal defense of the Respondents is that the revolutionary changes which took place in Iran totally frustrated the JSA due to conditions of force majeure, that is, conditions created by forces outside the control of the Government which made performance of the JSA impossible, thereby discharging the Parties' respective obligations under that agreement and relieving the Respondents of any liability for the acts complained of. This defense, while generally associated with the contractual aspects of a relationship, is relevant to the expropriation claim insofar as it relates to whether any contract rights remained to be taken following the Revolution. As the defense is pre-emptive in nature, the Tribunal considers it appropriate to address it first.

78. The record clearly indicates that force majeure conditions during late 1978 and early 1979 affected the oil industry in Iran in general and the JSA facilities on Lavan Island in particular. Strikes in the oil industry during the Revolution, including strikes and work stoppages by the employees of IMINOCO, interrupted crude oil production from the JSA fields. Strikes by LAPCO personnel who performed IMINOCO's oil loading operations led to full storage of IMINOCO's oil on Lavan Island and prevented liftings by NIOC and the Second Party companies. During this period, the expatriate personnel of IMINOCO left Iran for their personal safety. The Respondents argue that the attitudes of the oil workers prevented the delivery of oil to the Second Party companies upon resumption of oil production in early 1979. From this state of affairs, the Respondents conclude that continuing force majeure conditions "totally frustrated" the JSA.

79. As the Tribunal observed in the Consortium Cases in relation to the same argument: "Usually, force majeure conditions will have the effect of terminating a contract only if they make performance definitively impossible or impossible for a long period of time." Mobil Oil Iran, Inc. and The Government of the Islamic Republic of Iran, Award No. 311-74/76/81/150-3 (14 July 1987) at para. 116, reprinted in 16 Iran-U.S. C.T.R. 3, 38-39 (concluding in the circumstances that on 10 March 1979 the Consortium Agreement was not frustrated or terminated for cause of force majeure). See also Amoco International Finance Corporation and The Government of the Islamic Republic of Iran, Award No. 310-56-3 (14 July 1987) at para. 83, reprinted in 15 Iran-U.S. C.T.R. 189, 213 (concluding that the Khemco Agreement survived the force majeure conditions).

80. Moreover, in this Case the Parties agreed in advance on the effect which any sustained force majeure conditions would have on the JSA, and in particular on the rights and obligations of the Second Party companies and IMINOCO. It is clear from Article 36 of the JSA, set forth above, that the Parties intended that force majeure conditions which prevented performance by the Second Party or by the operating company would not terminate their agreement. Rather, obligations were suspended during any period of force majeure conditions. If such a period exceeded twelve months, the term of the JSA automatically would be extended by a corresponding period of time.

81. The Tribunal notes that the force majeure conditions which prevented oil production during the Revolution were temporary, and in any event did not exceed twelve months. They commenced in late 1978 when Imam Khomeini called on the oil workers to strike and they ended a few months later when the Revolution resulted in the creation of the Islamic Republic and the new Government directed resumption of production. Pursuant to the JSA, it was agreed that the failure by the Second Party or the operating company to perform any obligation due to conditions of force majeure would not be treated as a failure to comply with the agreement. Although the JSA did not contain provisions which NIOC might invoke in the event of force majeure conditions, under general principles of force majeure, the same would be true in respect of NIOC's obligations.

82. After the force majeure conditions which prevented oil production ended, the Second Party demonstrated its willingness to resume liftings and to perform its obligations. The Second Party companies continued to meet cash calls from the operating company both during the period of shut-down and thereafter until IMINOCO stopped making cash calls at the end of June 1979. They participated in management of IMINOCO until prevented by NIOC from any further involvement. Operations could and did proceed without the presence in Iran of expatriate personnel whose reduction and replacement by Iranian personnel was in any case required by the JSA. In any event, some of those personnel returned to Iran following the resumption of production until they were replaced by persons appointed by NIOC. Despite the willingness of the Claimant to perform, however, NIOC did not allow it to resume the exercise of its rights under the JSA.

83. The Respondents argue in this connection that the oil workers were adamantly opposed to the resumption of the JSA, that their attitudes prevented NIOC from resuming relations with the foreign JSA companies, in particular the loading of any lifted oil, and that this unwillingness to deal with the foreign oil companies created continuing force majeure conditions which totally frustrated the JSA, excusing the Respondents from liability to compensate. To illustrate this argument, the Respondents point, in particular, to the first export of oil after the Revolution with a shipment from the IMINOCO fields bound for Japan. On that occasion, in March 1979, LAPCO workers on Lavan Island are said to have loaded the cargo only after they had received assurance that the oil was not for the Second Party companies. The Respondents refer to a number of evaluations in the press of the situation in the Iranian oil industry which, in their view, confirm that throughout 1979 the oil workers were a force with a view of their own on the future of Iran's oil industry and that their opposition to the JSAs and the Second Party companies could not be controlled by NIOC or the Government. The Respondents also refer to evidence submitted in Cases Nos. 20, 21, 55 and the Consortium Cases as demonstrating the opposition of oil workers and workers' committees to certain NIOC policies and efforts to resume communications or relations with the JSA Second Party companies. The implication of the Respondents' frustration argument is that the oil workers would have prevented any attempt by the Government or NIOC to resume their relations under the JSA with the Second Party companies had the Government and NIOC so decided. Apart from the fact that the question was in reality never put to the test because neither the Government nor NIOC intended a resumption of the JSA (see infra, para. 90 ff.), the described attitude of the workers was, in fact, so congruous with the Revolution's and the Revolutionary Government's stated policy with regard to the foreign companies' future role in the oil industry that it did not constitute an independent and effective force which can be said to have made performance of the JSA impossible for that same Government.

84. The evidence shows that the oil workers played a crucial role in the bringing down of the Shah's

regime and were sought and heralded by the Revolutionary leaders. The oil workers' opposition to the foreign companies was also in accord with the Revolution's, and later the new Government's, goal of "nationalization" of the Iranian oil industry, and the vast majority of the workers did not oppose the Government's resumption of production within that framework. Beginning in November 1978, the oil workers followed Imam Khomeini's calls for strikes. In a declaration of 23 November 1978, for instance, he specifically stated, inter alia, that "it is the duty of all oil company officials and workers to prevent the export of oil." [20] Upon his arrival in Tehran, on 1 February 1979, he thanked, among others, the workers who had "triumphed because of your extraordinary efforts and unity of purpose." [21] On the other hand, enough of the striking oil workers went back to work to permit production of oil for domestic use when Imam Khomeini so requested on 30 December 1978. When, a week after the victory of the Revolution, he called on strikers to return to work, about 90 percent of the oil workers did so. With regard to IMINOCO operations, the Claimant was informed on 27 February 1979 by its Second Party partner AGIP that IMINOCO's Iranian personnel were "back at work at the fields carrying out maintenance work and waiting." Oil exports resumed on 5 March 1979, and by mid-March production had increased to about 2.5 million barrels per day. Dr. Nazih, NIOC's Managing Director, stated on 26 April 1979 that "with the efforts of the workers and employees of the oil industry... we could, within a short period, increase our production to 5,500,000 barrels of crude oil per day....." On 28 February 1979, Dr. Nazih declared during a workers' meeting: "The companies that have been imposed upon us would do better to withdraw, otherwise they will be made to withdraw with help from you, the company workers." And on 7 August 1979, he gave the following comment in an interview: "Thank God, with the massive unity on the part of the workers and the staff, [NIOC] is being run very well. I never thought we would be so successful."

85. While there is evidence that the workers did not always trust officials of NIOC to follow the strict nationalistic and anti-Second Party policies pressed by the workers--and by the highest authorities of the new Islamic Regime--there is no evidence for the proposition that they did not ultimately follow the directives of those highest authorities. As the oil workers acted in accord with the policies of the new Government, it cannot be concluded that their "attitudes" constituted an independent and effective force creating force majeure conditions. The Tribunal notes that NIOC did not rely on this argument prior to these proceedings, and in at least one case involving Japanese construction of a petrochemical facility, the project proceeded after the Revolution when the Government wanted it to proceed. On the evidence, the Tribunal concludes that the Respondents have failed to prove that "force majeure conditions" made resumed performance of the JSA impossible. Accordingly, continued performance of the JSA was not frustrated.

86. The Respondents further contend that they had the right to terminate the JSA due to changed circumstances, pointing to inclusion of this concept in Article V of the Claims Settlement Declaration. "Changed circumstances", in the context of Article V of the Claims Settlement Declaration, is only one of the elements which the Tribunal must take into account when choosing the law to be applied in a particular case. Consortium Cases, supra, at para. 118. As a substantive matter, however, the Respondents appear to rely on "changed circumstances" both in the sense of the dramatic social changes brought about in Iran by the Revolution and in the sense of the change in oil policy applied by the new regime. Changes of such a character and magnitude are not without consequence to contractual relationships, but they do not affect the validity of such agreements. Consortium Cases, supra, at para. 119. In other words, a revolutionary regime may not simply

[20] H. Algar, Islam and Revolution (1981), p. 243.

[21] Ibid., p. 252.

excuse itself from legal obligations by changing governmental policies, nor take for the public benefit without compensation businesses operated by foreign private persons under the previous regime.

87. The Tribunal's award in the Case of Questech, Inc. and The Ministry of National Defence of the Islamic Republic of Iran, Award No. 191-59-1 (25 September 1985), reprinted in 9 Iran-U.S. C.T.R. 107, on which the Respondents rely for the proposition that a party may be excused from contractual obligations due to changed circumstances, is not apposite due to the obvious differences between the cancellation of military intelligence projects of unique political sensitivity and the taking of contract rights involving offshore petroleum fields.

88. In the circumstances, the Tribunal therefore decides that the Claimant's property interests remained intact following the Revolution and so were capable of being taken by the Respondents, as the Claimant alleges. Those interests, as noted above, consisted principally of the contractual right to share in the oil produced from the JSA fields and shareholder rights to participate in the management of the JSA operations through IMINOCO, a non-profit company. The Tribunal therefore turns to the Claimant's allegations that it was deprived of these rights by actions attributable to the Respondents.

89. The principal events which the Claimant associates with the taking of its property interests occurred during 1979. The Claimant asserts that the alleged expropriation did not result from any public government decrees, but rather from concerted actions of the Government of Iran, often operating through NIOC,[22] which effectively deprived the Claimant of its property.

90. The record shows that termination of the JSA relationship was heralded during the days immediately preceding and following the return of Imam Khomeini to Iran on 1 February 1979. Leading members of the Revolutionary movement announced that the first step of the new Government would be the revocation of oil contracts and the taking back of oil from the hands of the multinationals in order to realize a true nationalization of oil and in order to make the oil industry an integral part of the Iranian economy. The announcements of the intentions of the new leadership were repeated following the installation of the Revolutionary Government in mid-February 1979. On 14 February, Abdolhasan Bani Sadr, who later became President, declared that the nationalization of the oil industry would be Iran's first step to transforming the economy and that oil would be fully "integrated with the Iranian economy." On 28 February, the New York Times quoted a spokesman for NIOC as saying that Iran would probably nationalize all joint production ventures with foreign companies and that the number of foreign experts in the oil industry would be limited to one-fifth of the number prior to the Revolution.

91. The first concrete nationalization action was taken against the Consortium, which was by far the largest Iranian oil producer. On 10 March, NIOC sent the Consortium members a letter repudiating

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[22] The Full Tribunal observed in the Oil Field of Texas case that it is "clear that NIOC is one of the instruments by which the Government of Iran conducted and currently conducts the country's national oil policy." Oil Field of Texas, Inc. and The Government of the Islamic Republic of Iran, Interlocutory Award No. ITL 10-43-FT (9 December 1982) at p. 14, reprinted in 1 Iran-U.S. C.T.R. 347, 356. See also, Mobil Oil Iran, supra, at p. 38. International law recognizes that a State may act through organs or entities not part of its formal structure. The conduct of such entities is considered as an act of the State when undertaken in the governmental capacity granted to it under the internal law. See Article 7(2) of the Draft Articles on State Responsibility adopted by the International Law Commission, Yearbook International Law Commission 2 (1975), at p. 60. The 1974 Petroleum Law of Iran explicitly vests in NIOC "the exercise and ownership right of the Iranian nation on the Iranian Petroleum Resources." NIOC was later integrated into the newly-formed Ministry of Petroleum in October 1979.

the Consortium agreement and stating that, in the future, the members of the Consortium could obtain oil from Iran only by purchase from NIOC.[23] If there was any doubt that such action represented the policy of the new Government, that was dispelled in early April when public statements by the Minister of Economic Affairs and Finance and by the Governor of the Central Bank referred to Iran's being "free from obligations to the Consortium" and to the export of "the first consignment of our now entirely nationalized oil".

92. The first concrete actions concerning the Claimant's JSA rights were taken with respect to the oil itself following resumption of production in March 1979. NIOC unilaterally set the production rates at levels significantly below those prevailing prior to the Revolution. Despite oral requests by the Claimant during April and May to be permitted to lift petroleum, all petroleum produced by the fields was lifted by NIOC. While the Claimant apparently did not make any formal "nominations" to lift oil, the evidence is convincing that it was informally requesting from its NIOC partner permission to do so. No compensatory payment was made for the Claimant's share, even though this was contemplated in such circumstances by the JSA and suggested by the Claimant in the Second Party's letter of 26 June 1979 to NIOC.[24] Indeed, NIOC only provided petroleum on the basis of a separate sales contract, which it concluded with the Claimant's parent corporation on 19 June 1979, despite the JSA provision that petroleum produced was "owned at the well head" 50 percent by the First Party and 50 percent by the Second Party. That the Government of Iran had decided soon after assuming power that all sales of oil produced in the country must be made by NIOC notwithstanding existing arrangements seems clear in retrospect from the events, and confirming evidence was presented in this Case in the form of an internal memorandum dated 11 July 1979 of decisions made with respect to an unrelated project by the National Petrochemical Company. That memorandum referred to the "Government's policy that all sales of hydrocarbons produced in the country must be made by NIOC".

93. Confirmation of this governmental policy is found in the Official Gazette No. 10066, dated 13 September 1979 which published Notice No. 52866, dated 18 August 1979, relating to the budget for the year 1358 (21 March 1979--20 March 1980). Note 38 states, in part: "Oil sale contracts shall be signed by the National Iranian Oil Company on behalf of the Government. The sale proceeds of crude oil, in any form, and that of exported oil products, shall be directly deposited in the account of the General Treasury in the Bank Markazi." On 23 May, Imam Khomeini received certain NIOC staff members and was quoted in the Tehran press as saying that the foes of Islam had had their hands cut off Iranian oil resources which "are in your own hands". Furthermore, at the end of 1979, the Minister of Petroleum was quoted in the press as stating that "After the Revolution, practically we have not delivered a drop of oil to the second party." In this context, it is also noted that the Law for the Protection and Expansion of Industries adopted by the Iranian Revolutionary Council on 5 July 1979 stated that the petroleum industry had already been nationalized, and that on 9 July, Prime Minister Bazargan was quoted in the Tehran press as saying the same thing.

94. Other actions affecting the Claimant's rights in IMINOCO began in May 1979. On 29 May 1979, the Managing Director of NIOC appointed a committee of seven persons to "supervise and execute the affairs of the affiliated companies until the situation of their contracts are clarified..." NIOC later dismissed the Managing Director appointed by the Second Party, a right reserved to the Second

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[23] The text is quoted in Mobil Oil Iran, Inc., supra, at para. 120.

[24] While according to IMINOCO's Statutes the Second Party companies could have requested an extraordinary general meeting on the issue of future liftings, they apparently tried to arrive at a negotiated solution with NIOC. This did not mean, however, that they acquiesced in the situation, and in fact no new agreement replacing the JSA could be reached. See supra, paras. 35 ff.

Party by the JSA, and vested executive authority in its own appointee. Information regarding operations of IMINOCO, principally production reports, ultimately ceased being sent to the Claimant in September.

95. A third set of actions, aimed at termination of the JSA arrangement as a whole, also commenced in the Spring of 1979. Several meetings were held in connection with the negotiations of the sale/ purchase agreement noted above. These discussions were linked by NIOC to termination of the JSA and settlement of any issues arising therefrom. Ultimately, NIOC appointed in August 1979 a sub-commission of its Board of Directors, headed by Mr. Khalili, to terminate all of the JSAs and to negotiate new arrangements with each of the former partners. This sub-commission met with the IMINOCO Second Party on 29 September 1979 and notified them at that time that their JSA was terminated. Settlement terms remained linked by NIOC to the opportunity to purchase oil from NIOC in the future.

96. The state of affairs thus reached over the course of 1979 was confirmed during 1980 and thereafter, particularly by promulgation of the Single Article Act in January 1980 and the written notification of the "nullification" of the JSA made in August 1980. This written notification, which emanated from the Ministry of Petroleum and NIOC and not from the Special Commission, explicitly confirmed the oral notice of termination given by NIOC during 1979, i.e. before the Special Commission was formed. It thus served as little more than ratification of the actions taken during 1979.

97. The effects of these events on the Claimant's property are not in dispute. The Tribunal has earlier observed that:

> While assumption of control over property by a government does not automatically and immediately justify a conclusion that the property has been taken by the government, thus requiring compensation under international law, such a conclusion is warranted whenever events demonstrate that the owner was deprived of fundamental rights of ownership and it appears that this deprivation is not merely ephemeral. The intent of the government is less important than the effects of the measures on the owner, and the form of the measures of control or interference is less important than the reality of their impact.
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> Tippetts, Abbott, McCarthy, Stratton, supra, at p. 11. Therefore, the Tribunal need not determine the intent of the Government of Iran; however, where the effects of actions are consistent with a policy to nationalize a whole industry and to that end expropriate particular alien property interests, and are not merely the incidental consequences of an action or policy designed for an unrelated purpose, the conclusion that a taking has occurred is all the more evident.

98. Although a government's liability to compensate for expropriation of alien property does not depend on proof that the expropriation was intentional, there seems little doubt in this Case that the new Islamic Republic intended to bring the JSA to an end and to place NIOC fully in charge of all oil production and sales. Even though it can readily be observed that NIOC made equivocal statements during 1979 regarding the timing and the terms for termination of the JSA, the refusal to permit the Claimant to exercise any rights under the JSA is more relevant to such a finding than any of these pronouncements. Notwithstanding the ambiguity of some of these statements and the Claimant's continued efforts to arrive at an agreed solution of the problems with the JSA, there is in

this Case no evidence of any such agreed termination of the JSA nor of a waiver by the Claimant of its rights under that Agreement (as the Tribunal found in the Consortium Cases based on the evidence there).

99. The effects of Iran's actions on the Claimant's JSA rights can be summarized succinctly. Whereas the First and Second Parties jointly operated the offshore petroleum fields involved in this Case and shared 50-50 the crude petroleum produced by the fields prior to the events of 1979, thereafter the Claimant and the other Second Party companies no longer participated in joint operation of the fields, no longer received their share of the petroleum being produced, and were told by Iran that their agreement had been terminated and nullified. These changes resulted from the actions of Iran summarized above, which totally excluded the Second Party from any of its functions under the JSA.

100. The conclusion that the Claimant was deprived of its property by conduct attributable to the Government of Iran, including NIOC, rests on a series of concrete actions rather than any particular formal decree, as the formal acts merely ratified and legitimized the existing state of affairs. The Claimant suggests that the taking was complete by 29 September 1979, the date of the meeting when it was informed of the termination of the JSA. The Respondents contend that 11 August 1980, the date of the written notification informing the Claimant that the Special Committee had declared the JSA null and void, is the only date when the taking could be said to have been complete.

101. The Tribunal is not bound by the suggestions of the Parties in determining the date of taking for purposes of liability, but rather must determine such date on its own, based on the facts of the case. The Tribunal has previously held that in circumstances where the taking is through a chain of events, the taking will not necessarily be found to have occurred at the time of either the first or the last such event, but rather when the interference has deprived the Claimant of fundamental rights of ownership and such deprivation is "not merely ephemeral,"[25] or when it becomes an "irreversible deprivation."[26] Similarly, where the appointment of temporary managers ripened into a taking of title at a later date, the Tribunal found that the earlier date should be used when "there is no reasonable prospect of return of control." Sedco, Inc. and National Iranian Oil Company, Interlocutory Award No. ITL 55-129-3 (28 October 1985), at p. 42. The Tribunal has observed that an important objective of the Revolutionary movement--and a first order of business of the new Government--was the assumption of complete control over all aspects of the oil industry, notwithstanding existing joint ventures with foreign oil companies. The first and most immediate action against the property rights at issue, the refusal, in line with this policy, to permit the Claimant to take its liftings under the JSA, started after production from the JSA fields had resumed in March 1979. The final formal "nullification" in August 1980 of the JSA only confirmed the then existing state of affairs. Between these two dates, the Tribunal considers that an early date is appropriate.

Where the alleged expropriation is carried out by way of a series of interferences in the enjoyment of the property, the breach forming the cause of action is deemed to take place on the day when the interference has ripened into more or less irreversible deprivation of the property rather than on the beginning date of the events. The point at which interference ripens into a taking depends on the circumstances of the case and does not require that legal title has been transferred. (Footnote

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[25] Tippetts, Abbett, McCarthy, Stratton, supra, at p. 11.

[26] In International Technical Products Corporation and The Government of the Islamic Republic of Iran, Award No. 196-302-3 (28 October 1985) at p. 49, reprinted in 9 Iran-U.S. C.T.R. 206, 240-241, the Tribunal held:

omitted).

102. The Tribunal notes that the Claimant's loss was felt from the time of the first refusals to permit it to lift petroleum in April 1979. At that time the Claimant was still uncertain whether that situation was to be permanent, and NIOC first indicated that it would at some later time be willing to discuss the Claimant's request concerning its 1979 liftings. When no such discussions ensued, the Claimant's parent company felt compelled to enter, on 19 June 1979, into a separate sales/purchase agreement for crude oil with NIOC. But the Claimant still proposed, together with the other Second Party companies in their letter of 26 June, a provisional arrangement for liftings through the rest of that year which was based on the JSA and the rights under that agreement, and which they were waiting to discuss in the separate meeting envisioned by NIOC in the April general meeting. On 30 June, cash calls to the Claimant ceased. While the cessation of cash calls showed that IMINOCO did in fact no longer operate as provided for in the JSA, the Second Party companies still based their disagreement to the dismissal on 1 August of the Second Party's Managing Director on "the existing contractual arrangement," viz., the JSA, when AGIP requested an early meeting of the Board of Directors on the matter. It became clear, however, in the meeting which the IMINOCO Second Party companies had with the Khalili sub-commission on 29 September 1979 that there was no reasonable prospect of return to an arrangement with NIOC on the basis of the JSA. For it was in this meeting that the Second Party companies were told not only that they should regard the JSA as terminated, but also that their letter of 26 June did not deserve an answer. Consequently, the Tribunal finds that the Claimant's JSA rights were taken by 29 September 1979, and that the Respondents are liable to compensate the Claimant for its loss as of that date.

B. Standard of Compensation

103. The Tribunal has consistently held that the applicable law for the purpose of determining the compensation owed by the Islamic Republic of Iran for deprivations or takings of property of United States nationals during the years immediately prior to the Algiers Accords is the 1955 Treaty of Amity.[27] See, for example, Phelps Dodge Corp. and Overseas Private Investment Corp., supra; Thomas Earl Payne and The Government of the Islamic Republic of Iran, Award No. 245-335-2 (8 August 1986), reprinted in 12 Iran-U.S. C.T.R. 3; Sedco, Inc., supra; Amoco International Finance Corporation, supra; and Starrett Housing Corporation, supra. The Tribunal has recognized that the Treaty of Amity, whether or not it remains in force today between the two States, was in force in 1979 and 1980 and clearly was applicable to the investments at issue in these Cases at the times the claims arose.[28] Therefore, the Treaty of Amity is the relevant source of law on which the Tribunal is justified in drawing in reaching its decision.

104. The relevant provision is found in Article IV, paragraph 2, of the Treaty of Amity, which provides:

Property of nationals and companies of either High Contracting Party, including interests in

[27] Treaty of Amity, Economic Relations, and Consular Rights Between the United States of America and Iran, signed 15 August 1955, entered into force 16 June 1957, 284 U.N.T.S. 93, T.I.A.S. No. 3853, 8 U.S.T. 900.

[28] The International Court of Justice reached a similar conclusion in May 1980. See Case Concerning United States Diplomatic and Consular Staff in Tehran, Judgment of 24 May 1980, I.C.J. Reports (1980) at 28.

property, shall receive the most constant protection and security within the territories of the other High Contracting Party, in no case less than that required by international law. Such property shall not be taken except for a public purpose, nor shall it be taken without the prompt payment of just compensation. Such compensation shall be in an effectively realizable form and shall represent the full equivalent of the property taken; and adequate provision shall have been made at or prior to the time of taking for the determination and payment thereof.

105. That contract rights, such as those taken by the Respondents in the present Case, are "interests in property" protected by the Treaty of Amity is clear from the above-quoted text and from the negotiating history of the provision, which indicates that the reference to "interests in property" was included at the insistence of the United States for the stated purpose of ensuring that contract rights in the petroleum industry would be protected by the Treaty in the same way as would the older type of property represented by a petroleum concession.

106. Thus, the Claimant is entitled by the Treaty to "just compensation", representing the "full equivalent of the property taken". As the Tribunal has previously held, where the property taken was a "going concern", compensation that meets the Treaty standard is compensation that makes the Claimant whole for the "fair market value" of the property at the date of taking. See the Thomas Earl Payne, Sedco and Starrett Awards, supra. In the present Case, the Claimant argues that its JSA rights constituted part of a "going concern," whereas the Respondents argue that, since the JSA had been frustrated, no such "going concern" remained that could have been taken. That the Claimant's JSA contract rights, which the Tribunal has found continued to exist until they were taken by the Respondents in September 1979, were part of a "going concern" is demonstrated by the history described above and, in particular, by the fact that the wells, platforms, pipelines, and storage facilities covered by the JSA produced petroleum from the JSA fields both before and after the taking in 1979, except for a few months in late 1978 and early 1979 when they were shut down as a result of strikes and violence related to the culmination of the Islamic Revolution. That the Claimant's JSA rights were not, by themselves, "a going concern", but were only part of a "going concern", follows on the other hand from their nature and the way they were granted and defined by that Agreement. As described in detail above, the Claimant's rights under the JSA were first, to participate in the management of IMINOCO, the operating company set up together with the two other Second Party companies and NIOC, and thereby in the production of petroleum from the area covered by the Agreement, and second, to take its share of the petroleum so produced and to export it. The consequence of this contractual situation was that the lifting of the petroleum to which the Claimant was entitled depended on IMINOCO first producing petroleum in accordance with the JSA, and further that the Claimant's influence on the volume of such production was determined by the extent to which the JSA granted the Claimant participation in the management of IMINOCO. In taking these contract rights of the Claimant (and those of the other Second Party companies) in 1979, the Respondents took complete control over a going concern to the exclusion of the Claimant's (and the other Second Party companies') interest therein and appropriated to themselves the entire benefit from that going concern, including that part to which the Claimant was entitled by virtue of the JSA. As a result, the Claimant is entitled to compensation equivalent to the fair market value of the Claimant's interest in the JSA on the date of taking.

107. As far as the standard of compensation is concerned, the Respondents have argued that the Treaty of Amity must be interpreted in the light of changes in customary international law which, they

assert, have taken place since the Treaty was signed in 1955. They point to the reference in the above-quoted Treaty provision to "international law", and to a general international law principle of "dynamic" interpretation of treaties. They assert that customary international law as it exists today does not require compensation for expropriated property that is the "full equivalent" of the property, and that this is especially so in cases of large-scale nationalizations involving a State's natural resources. In that context they point to the statement in INA Corporation and The Government of the Islamic Republic of Iran, Award No. 184-161-1 (13 August 1985) at p. 8, reprinted in 8 Iran-U.S. C.T.R. 373, 378, that "In the event of such large-scale nationalizations of a lawful character, international law has undergone a gradual reappraisal, the effect of which may be to undermine the doctrinal value of any 'full' or 'adequate' (when used as identical to 'full') compensation standard as proposed in this case" (footnote omitted), and more particularly to Judge Lagergren's discussion of that reappraisal in his Separate Opinion in that case.[29] However, the Tribunal need not express any view as to the asserted changes in customary international law, or the relevance of such law to a 1979 taking of property. First, the text of the Treaty provision does not support the Respondents' argument. The reference to international law is found in the first sentence of Article IV, paragraph 2, and its meaning is evident. It provides that the protection and security to be received by the property of nationals of one State within the other must be "most constant... and in no case less than that required by international law." This reference to international law clearly relates to the standard of "most constant protection and security" set forth in the same sentence and cannot be understood as modifying the taking and compensation requirements of the second and third sentences of that paragraph, which contain no reference to international law and which clearly and completely describe the requirements for takings and compensation. Concerning the argument that treaties generally should be interpreted in the light of customary international law as it may evolve, the Tribunal has already found in the INA award that the Treaty of Amity as a lex specialis prevails in principle over general rules. This is certainly the case for the Treaty's compensation provisions the purpose of which would otherwise be difficult to ascertain.

108. The Respondents also assert that compensation should be based on the net book value of the property taken and point in support of that assertion to a series of settlements in the global petroleum industry in recent decades which, they assert, demonstrate that both nations with petroleum reserves and companies engaged in finding and extracting those reserves accept net book value as an appropriate basis for compensation. The Tribunal notes, however, that such settlements are usually confidential and appear frequently to involve additional considerations, such as continued access to petroleum resources, so that the true compensation may be difficult to identify. As observed by the distinguished tribunal in Kuwait and American Independent Oil Company (AMINOIL), (Reuter, Sultan, and Fitzmaurice Arbitrators, Award of 24 March 1982) at paragraph 157, reprinted in 66 International Law Reports (1984) at p. 606, such settlements do not constitute an opinio juris. In any event, such settlements are irrelevant to the applicable law in the present Case, that is the standard of compensation set forth in the Treaty of Amity.

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[29] Judge Lagergren's evaluation of the aforementioned reappraisal led him to the conclusion "that an application of current principles of international law, as encapsulated in the 'appropriate compensation' formula, would in a case of lawful large-scale nationalizations in a state undergoing a process of radical economic restructuring normally require the 'fair market value' standard to be discounted in taking account of 'all circumstances'." INA, Lagergren, Separate Opinion at p. 8, reprinted in 8 Iran-U.S. C.T.R. at 390. But see Judge Holtzmann's Separate Opinion where he pointed out that the statement in the Award was obiter dictum as the case was decided under the Treaty of Amity, not customary law, and explained why he considered the statement an erroneous characterization of the current state of customary international law.

109. The Respondents further argue that the taking of property in the present Case was a lawful taking, and that for such a taking, a lesser standard of compensation is required. The Claimants deny that the taking was lawful and further deny that a lesser standard of compensation is applicable to lawful takings. However, the Tribunal need not decide in the present Case whether the taking was unlawful, for instance, as violative of stabilization clauses or for any other reason, because, whatever the relevance of that question as a matter of customary international law, it is irrelevant under the Treaty of Amity. Article IV, paragraph 2, quoted above, provides a single standard, "just compensation" representing the "full equivalent of the property taken", which applies to all property taken, regardless of whether that taking was lawful or unlawful. Clearly, as the Amoco International Finance Award, supra, recognizes, that standard applies to takings that are "lawful" under the Treaty, but the Treaty does not say that any different standard of compensation would be applicable to an "unlawful" taking. The Treaty states two requirements for any taking, that it be for a public purpose and that "just compensation", as defined therein, be paid promptly. In the present Case, there is no allegation that the taking, which extended to all petroleum production in Iran, was not for a public purpose, and the Claimant requests no more than "just compensation" based on the single standard of the Treaty.

110. The Tribunal believes that the lawful/unlawful taking distinction, which in customary international law flows largely from the Case Concerning the Factory at Chorzow (Claim for Indemnity) (Merits), P.C.I.J. Judgment No. 13, Ser.A., No. 17 (28 September 1928), is relevant only to two possible issues: whether restitution of the property can be awarded and whether compensation can be awarded for any increase in the value of the property between the date of taking and the date of the judicial or arbitral decision awarding compensation. The Chorzow decision provides no basis for any assertion that a lawful taking requires less compensation than that which is equal to the value of the property on the date of taking. In the present Case, neither restitution nor compensation for any value other than that on the date of taking is sought by the Claimant, so the Tribunal need not determine whether such remedies would be available with respect to a taking to which the Treaty of Amity applies.

C. Valuation

1. Valuation methods

111. The Tribunal recognizes that the determination of the fair market value of any asset inevitably requires the consideration of all relevant factors and the exercise of judgment. In the absence of an active and free market for comparable assets at the date of taking, a tribunal must, of necessity, resort to various analytical methods to assist it in deciding the price a reasonable buyer could be expected to have been willing to pay for the asset in a free market transaction, had such a transaction been possible at the date the property was taken. Any such analysis of a revenue-producing asset, such as the contract rights involved in the present Case, must involve a careful and realistic appraisal of the revenue-producing potential of the asset over the duration of its term, which requires appraisal of the level of production that reasonably may be expected, the costs of operation, including taxes and other liabilities, and the revenue such production would be expected to yield, which, in turn, requires a determination of the price estimates for sales of the future

production that a reasonable buyer would use in deciding upon the price it would be willing to pay to acquire the asset. Moreover, any such analysis must also involve an evaluation of the effect on the price of any other risks likely to be perceived by a reasonable buyer at the date in question, excluding only reductions in the price that could be expected to result from threats of expropriation or from other actions by the Respondents related thereto.

112. One such method of analysis, and the method used by the Claimant, is the Discounted Cash Flow ("DCF") analysis, which calculates the Claimant's prospective net earnings over the term of the JSA and discounts them to give their value at the date of taking, using a discount rate that takes into account the perceived risks. In that connection, the Tribunal does not understand the Claimant's calculations of anticipated revenues from the JSA as a request to be awarded lost future profits, but rather as a relevant factor to be considered in the determination of the fair market value of its property interest at the date of taking. The Tribunal recognizes that a prospective buyer of the asset would almost certainly undertake such DCF analysis to help it determine the price it would be willing to pay and that DCF calculations are, therefore, evidence the Tribunal is justified in considering in reaching its decision on value. In Starrett, supra, the Tribunal based its Award on an expert's report that utilized the DCF method, but the Tribunal made various adjustments to the conclusions and the resulting amounts. The need for some adjustments is understandable, as the determination of value by a tribunal must take into account all relevant circumstances, including equitable considerations.[30] While a DCF analysis can, and often should be, an essential and even central component in that determination of value, it must not exclude other relevant considerations. In this connection, the Tribunal notes that in Amoco International Finance, supra, Chamber Three considered the DCF method inadequate and distinguished between the assets of a going concern, including good will and commercial prospects, which it noted are closely linked to the profitability of the concern, and what it described as the "financial capitalization of the revenues which might be generated by such a concern...."

113. In the present Case, the property taken is not a manufacturing or processing enterprise, but rather contract rights to continue to exploit natural resources previously discovered pursuant to the contract, and the Tribunal considers the use of the DCF method by the Claimant a relevant contribution to the evidence of the value of the Claimant's contract rights which have been taken by the Respondents. However, the Tribunal agrees that it is not an exclusive method of analysis and that all relevant considerations must be taken into account. As used by the Claimant, with its production and price estimates and a very low discount rate (four and one-half percent), the Tribunal cannot agree that the method has resulted in a proper estimate of market value. There are, for example, risks, such as the risk of reduced future production as a result of national policy changes flowing from the Iranian Revolution, that should be taken into account, even if such risks cannot be quantified with any certainty in the anticipated production or as part of a discount rate. The Tribunal therefore proceeds to its determination of the value of the Claimant's property interest on the date of taking by means of consideration of all relevant circumstances as revealed by the evidence presented in the Case.

114. In this connection, the Tribunal does not intend to make its own DCF analysis with revised components, but rather to determine and identify the extent to which it agrees or disagrees with the estimates of both Parties and their experts concerning all of these elements of valuation.

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[30] See Aminoil Award, supra, paras. 78 and 144.

115. Another method which can help the Tribunal verify its findings concerning the value of the Claimant's JSA interests is to value the tangible investments made by the Claimant under the JSA as well as the Claimant's intangible assets, including the profitability of its share of the going concern, and to deduct from these total assets the Claimant's liabilities. While this method also values the revenue-producing potential of the Claimant's JSA interests it puts more emphasis on actual investments and past performance as a basis for the assessment of expected profitability than on forecasts of expected cash flows. This method, which might be described as an underlying asset valuation approach, first calculates the tangible assets at their depreciated replacement value, thereby adjusting book value which the Respondents, in its net form, have put forward as their preferred measure of compensation for this Case. In order to quantify the intangible assets including profitability of the property interests taken, an appropriate income figure is determined based on historic earnings, to which a multiple is applied, which takes into account legitimate expectations in an oil venture of this type generally and in the context of the JSA more particularly.

116. The Tribunal is mindful that, as in any other case, its findings and conclusions are determined by the applicable law and the particular circumstances of this Case. With regard to the standard of compensation, the Tribunal has pointed out, supra, that it applies the lex specialis of the Treaty of Amity and that it need not therefore make any finding with respect to customary international law. Similarly, with respect to the methods of valuation, the Tribunal has used methods it considers appropriate in light of all the issues and evidence in this Case, including the nature of the contractual arrangements represented by the JSA, and the Tribunal makes no finding with respect to the valuation of other types of contracts or other types of property.

2. Quantity of oil

117. To determine how much oil could have reasonably been expected in September 1979 to be produced during the term of the JSA requires first a forecast of the quantity of recoverable oil and the timing of its recovery, which in turn requires an estimate of the total oil reserves in the area covered by the JSA. Whereas the degree of uncertainty in reserves and production estimates varies significantly with the maturity of the fields, there are, as one commentator has observed, "no certainties in performance forecasts--it is a petroleum engineering truism that the reserves of a field can only be precisely known after the last barrel of oil has been produced and the field abandoned."[31] In commenting on its production forecasts, the Claimant stated: "Obviously, there can be no one 'right' estimate of future production. Competent and conscientious experts will almost invariably disagree--within a range--on any question so complex and so subject to the application of technical judgment." The Tribunal will now establish what it regards as reasonable ranges of quantities of recoverable oil, taking into account all the evidence presented, including contemporaneous projections of IMINOCO, NIOC and the Claimant itself.

118. The evidence and arguments submitted by the Parties on this point have tended to mix together the questions of the quantity of recoverable oil and the probability of its recovery during the life of the JSA. The Parties have done this by addressing the question how much oil a buyer in 1979 could have expected would, in fact, be produced from the JSA reservoirs during the remaining years of the JSA. Certainly the question of how much oil was in those reservoirs that would have been

[31] Steven J. McTiernan, Reserves and production risks in petroleum financing, in: Gordon McKechnie (ed.), Energy Finance (1983), 205, 222.

theoretically recoverable is analytically quite separate from the question of the readiness of the Parties to produce all such recoverable oil and to make the further investments necessary for such maximum production. The Tribunal thinks it preferable to examine first the question of the quantity of oil in place that could reasonably have been expected in September 1979 to be recoverable by 1999 as a technical matter, given the will both to make the necessary investments to that end and to lift all the available oil. The Tribunal will then deal separately and as part of the analysis of the perceived risks with the question of the extent to which a buyer in 1979 should reasonably have anticipated that future investment and production might fall short of that maximum level. It is, in fact, this latter question that gives rise to some of the most significant disagreements between the Parties and their chosen experts.

119. The Claimant estimates production of oil from the reservoirs covered by the JSA between 1979 and 1999 at about 375 million barrels, while the Respondents, through Iranian Offshore Oil Company ("IOOC"), estimate about 145 million barrels. The production projections of the experts retained by the Claimant and the Respondents, respectively, Core Laboratories ("Core Lab") at about 352 million barrels and Exploration Consultants, Limited ("ECL") at about 138 million barrels, show a similar degree of overall disagreement. To a large extent, it appears that these great disparities result from different assumptions about when and whether further investments would be made by the Parties to the JSA, particularly with respect to water injection projects for secondary recovery, and whether NIOC could be expected to continue to support efforts to maximize production, considering, on the one hand, the provisions of Article 13, paragraph 1, of the JSA and, on the other, possible countervailing considerations of changed oil and production policies. The following table shows the relevant estimates, broken down by field and by primary or secondary recovery.

RECOVERABLE OIL PROJECTIONS 1979-1999

(in 1,000's of barrels)

Phillips Core Lab IOOC ECL

Rakhsh

Primary 102,668 106,577 58,333 57,017

Secondary 115,391 86,025 16,374 10,040

Total 218,059 192,602 74,707 67,057

Rostam

Primary 70,097 87,253 47,520 50,834

Secondary 86,973 72,300 22,778 20,320

Total 157,070 159,553 70,298 71,154

Total Primary 172,765 193,830 105,853 107,851

Total Secondary 202,364 158,325 39,152 30,360

TOTAL 375,129 352,155 145,005 138,211

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120. With respect to Rakhsh primary recovery, the Tribunal concludes that the total oil recoverable during the remaining twenty years of the JSA would reasonably have been estimated in 1979 at approximately 80,000,000 barrels. Such an estimate is supported by IMINOCO-approved studies and by substantial contemporaneous evidence, including a report by the Claimant's Supervisor of Development Geology in Iran.

121. With respect to Rakhsh secondary recovery, the Tribunal concludes that the total oil recoverable during the remaining twenty years of the JSA would reasonably have been estimated in 1979 at somewhere in the range of 75,000,000 to 80,000,000 barrels. While the secondary recovery project in the Arab C reservoir was well advanced and would reasonably have been expected in 1979 to proceed, albeit perhaps with several years delay beyond the 1981 target date as a result of the Revolution, the secondary recovery project in the Shuaiba reservoir was in September 1979 at an early stage at which the necessary plans had neither been made nor were in prospect. The Tribunal finds that secondary recovery from the Shuaiba reservoir could not reasonably have been expected prior to the late 1980s.

122. With respect to Rostam primary recovery, the Tribunal concludes that the total oil recoverable during the remaining twenty years of the JSA would reasonably have been estimated in 1979 at somewhere around 60,000,000 barrels. Such an estimate is supported by IMINOCO-approved studies, by other contemporaneous evidence, and by the views expressed by the experts presented by the Parties.

123. With respect to Rostam secondary recovery, the Tribunal concludes that the total oil recoverable during the remaining twenty years of the JSA would reasonably have been estimated in 1979 at somewhere in the range of 65,000,000 to 70,000,000 barrels. The evidence indicates that a pilot project had been authorized by IMINOCO, as well as the full-scale engineering project. While secondary recovery would have appeared in 1979 to be technically feasible by 1 January 1984, the Tribunal believes that it would have been more prudent to have anticipated completion of the secondary recovery project only by one or even two years after that date, which will be taken into account by the Tribunal in its examination of risks, infra.

124. Thus, the total oil recoverable from both the Rakhsh and Rostam fields during the remaining life of the JSA could reasonably have been estimated in September 1979 in a magnitude of a range

between 280,000,000 and 290,000,000 barrels, of which the Claimant's 1/6 share corresponds to approximately 46.5 to 48.5 million barrels.

3. Oil prices

125. In order to estimate what revenue could have reasonably been expected in September 1979 to be received from the sales of the oil to be produced under the JSA, an assessment has to be made of what oil prices would have been foreseen in September 1979 to prevail on world markets during the remaining years of the JSA. While experience shows that forecasting future crude oil prices is difficult and open to a high risk of being proved wrong by the subsequent realities of the actual market, the Tribunal's objective here is to determine the range of expectations that seemed reasonable in September 1979, not the accuracy of those expectations in fact. The actual course of prices since 1979 to the date of this Award, while relevant to the present value of the property, is irrelevant to the value of the property in 1979, and it is the 1979 value which the Claimant seeks and to which it is entitled. Having determined the range of those expectations, the risk that world oil prices from 1979 to 1999 would prove to fall outside that foreseeable range will be discussed in the assessment of the risk factors affecting the value of the Claimant's JSA interests.

126. In this connection, it should clearly be understood that the Tribunal is not determining price levels and oil production quantities in order to award anticipated profits lost through breach of contract, but rather to determine what was the value of the property interests taken from the Claimant in September 1979. Those property interests constituted part of an income-producing going concern, the value of which at the time of taking, while certainly not the same as the "financial capitalization" value at that time of its anticipated future revenues, to use the terms used by the Tribunal in the Amoco International Finance Award, supra, nevertheless cannot be determined without taking fully into account its future income-producing prospects as they would have been perceived at that time by a buyer of those interests. History, to date, has shown that the price expectations generally held in 1979 were grossly inflated, but that does not make it wrong or unfair to use those expected price levels in the determination of the value of the property in 1979. A state that takes property assumes the risk of its subsequent decline in value, just as it assumes the benefits if the value appreciates.

127. Both Parties introduced evidence, largely in the form of affidavits and oral testimony by experts, Professor Colin Robinson for the Claimant and Dr. Peter Odell and Dr. Paul Stevens for the Respondents. Professor Robinson analyzed the history of oil prices, reviewed a number of roughly contemporaneous price forecasts, and described the results of ten independent studies of future oil prices made in 1981 and 1982. He concluded that "[d]uring 1979, expectations were formed of very considerable crude oil price increases in the long term future and by the latter part of the year such expectations were widely held." Professor Robinson proposed a price path expressed in October 1979 dollars, beginning with the actual price of U.S. $23.50 per barrel in October 1979 and rising to U.S. $51.60 in the year 1999 and U.S. $53.10 in the year 2000. Dr. Odell acknowledged that there was in 1979 a "general consensus" predicting steady oil price increases of this magnitude, but he pointed out that he believed it was wrong and that "this so-called 'conventional view' was not based on a thorough or well-reasoned analysis of the real situation," and he demonstrated that he had expressed such criticism in 1979.[32] He saw a fundamental incompatibility between the Claimant's

[32] Dr. Odell emphasized that the 1979 reaction to the "Second Oil Shock" was a panic reaction that ignored the facts of supply and demand.

predictions for steadily increasing prices and its forecast of demand for and hence production of oil at the rate previously assumed for lower oil prices. Dr. Stevens added four comments about the "consensus": first, that a buyer would have been aware in 1979 that there were vested interests trying to "talk up" the price; second, that forecasters in their own self-interest always tend to keep to the consensus; third, that mid-1979 was a period of "enormous uncertainty" in the oil market and that Esso had stated in 1979 that it would be impracticable at that time to prepare a meaningful price forecast; and fourth, that, in fact, prices have not continued to rise. Dr. Stevens also pointed to an alternative price forecast, one done by Chase Econometrics in May 1979 and published on 12 June 1979, not long before the date of taking in this Case. That forecast was filed in Case No. 55 (also heard by this Chamber) and relied upon by the claimant in that case. That forecast, which was the most conservative referred to in evidence, called for a steady, but slower, increase in the price of oil over the twenty years remaining in the term of the JSA. The Chase forecast ranged, depending on the year, from nine to twenty-nine percent lower in its prediction of future oil prices than the Claimant's forecast, rising by 1999 to U.S. $36.53 per barrel in 1 August 1979 dollars for oil which the Respondents have acknowledged is the same quality crude oil as that at issue in the present Case.

128. Dr. Odell made several further salient points:

A serious investor of the kind who could, and might, have been interested in buying Phillips' operations would not have ignored either this "uncertain situation" or the views that lay outside of the "general consensus". In my opinion, he would have attached, at the very least, a high risk factor to the high price scenario for calculating the DCF value of future revenues; and he certainly would have made alternative calculations based on the more rational and reasoned views of those who were not part of the "consensus".

129. The Tribunal is persuaded that September 1979 was a time when the always uncertain business of forecasting future crude oil prices was even more difficult than usual. Nevertheless, it is clear that a potential buyer of the Claimant's interests in the JSA would have had to assess at least a range of likely future prices in order to determine both the revenue-producing potential of those interests and the price that he or other buyers would have been prepared to pay for them. It also seems clear that there was at that time an optimistic, if misguided, "general consensus" that prices were likely to rise steadily and substantially for at least the remainder of the twentieth century. However, a buyer of these JSA interests should also have recognized the uncertainties inherent in the situation in 1979 and could not reasonably have assumed that the "consensus" of forecasts was a safe bet. The Tribunal concludes that such a buyer would prudently have anticipated a range of future prices bounded, at the top, by a price path such as that proposed by Professor Robinson, the Claimant's expert, and, at the bottom, by a conservative forecast along the lines of that by Chase Econometrics. [33]

130. The Tribunal notes that it would have been helpful had the Claimant and NIOC provided information on how they themselves or other oil companies viewed in September 1979 the future

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He pointed out that in reaction to the First Oil Shock, the events of 1973 and 1974 when prices had risen sharply, the rate of increase in world-wide demand had dropped sharply and that in 1979 there was no physical scarcity of crude oil, given the world's known and proven resources.

[33] While he submitted a particular price path to enable the calculation of anticipated cash flows, Professor Robinson also stated that "[i]n estimating future oil prices I would normally work in terms of a range."

of the oil price development. It would have been informative to see how, at the time of such high volatility in the world oil market, actual market participants assessed for their business planning and decisions the likely course the oil prices would take and on what scenarios they grounded their decisions at that time.

131. The Tribunal concludes that, based on the information available at that time, a reasonable buyer in September 1979 of the Claimant's interests in the JSA could have been expected to calculate future crude oil prices in the lower segment of the range accepted by the Tribunal, supra, paragraph 129.

4. Costs of production

132. To determine the net cash flows that could have reasonably been expected in September 1979 from the Claimant's JSA interests, in addition to estimates of taxes and royalties payable to Iran, which, of course, are dependent largely on estimates of oil production and prices, an estimate is required of the payments for operating and capital costs that would have had to be made in the remaining years of the JSA. The Claimant submitted a cost estimate which was based, to a large extent, on the 1979 IMINOCO Five Year Plan, although a number of adjustments were made, for example in connection with secondary recovery projects and to remove inflation factors so as to express the costs in constant 1979 dollars. The Claimant also removed certain additional costs for 1980 and 1981 that were projected by budget revisions in November 1978 and April 1979 on the ground that neither the Five Year Plan nor IMINOCO's operating plans suggest any basis for such costs. The Claimant submitted that its one-sixth share of IMINOCO's operating costs would total just under U.S. $4,000,000 per year in constant 1979 dollars throughout the twenty-year period and that its one-sixth share of the capital costs of the Rakhsh Arab C and Rostam Shuaiba secondary recovery projects would total nearly U.S. $21,000,000 in constant 1979 dollars. Core Lab reviewed the Claimant's cost estimate and found it reasonable and within the experience of the industry.

133. The Respondents, while refraining from suggesting their own estimate of costs, have made a number of salient criticisms of the Claimant's estimates in support of their contention that those estimates are much too low. In particular, the Respondents make the following points: first, an analysis of costs during the earlier years of the JSA shows that the trend was for costs to rise faster than inflation and that the Claimant's estimates ignore that trend; second, the Five Year Plan was not a valid base for future projections of costs because IMINOCO's budgets were constantly being increased late in the budget year, or monies allocated to uncompleted projects were used to cover cost increases while the same amounts were added to the next year's budget for the completion of those projects; third, not all such unforeseen increases were due to exploration and development activities, as shown by the total budgets for 1976 and 1977 when there were no such activities and when the budgets were underestimated by approximately 200 percent; fourth, the budget additions of November 1978 and April 1979 that the Claimant ignores as not supported by data were in fact called for by the expatriate Managing Director, Mr. Trampini, were not questioned by the Claimant in Board meetings or otherwise at that time, and were largely required to increase the previously frozen salaries of IMINOCO employees; fifth, the Claimant's estimates ignore the fact that operating costs increase with the age of equipment and facilities, and the Respondents cite testimony of Morgan Stanley and Company presented in Case No. 55 by the claimant in that case, Amoco Iran, which predicted increased operating and capital costs beyond inflation of about 3

percent per year; and sixth, the Claimant had foreseen in 1975 much higher operating costs for secondary recovery projects than it now estimates.

134. The Tribunal is persuaded that the Claimant's estimates of future costs under the JSA are substantially too low, perhaps by as much as 50 to 75 percent. Nevertheless, it must also be recognized that underestimation of costs, even in this range, has only a very minor effect on the total value of the Claimant's JSA interests. The Claimant has pointed out, and the Respondents have not denied, that because of the size of cash flows and the tax system, a cost increase of 20 percent per year would reduce that value by only 1 percent, and a 50 percent cost increase would result in only a 2 percent reduction of that value. The Tribunal concludes that a reasonable buyer in September 1979 would have estimated future annual costs in an amount approximately 50 to 75 percent higher than calculated by the Claimant, and that this would result in a reduction of approximately 2 to 3 percent in the value of the Claimant's interests in the JSA.

5. Risks

135. The fourth factor which, in addition to quantities of recoverable oil, oil prices and costs, determines the value of the Claimant's JSA interests are the risks that could have been perceived in September 1979 by any buyer of those interests as affecting their revenue-producing potential. Some of these risks have been alluded to supra. It seems certain that any reasonable buyer would have analyzed the relevant risks as carefully as he would have analyzed those other three factors in deciding what price he would have been prepared to pay for the Claimant's JSA interests. Nevertheless, it is well established that the Tribunal must exclude from its calculation of compensation any diminution of value resulting from the taking of the Claimant's property or from any prior threats or actions by the Respondents related thereto. See American International Group, Inc. and The Islamic Republic of Iran, Award No. 93-2-3 (19 December 1983), reprinted in 4 Iran-U.S. C.T.R. 96; INA Corporation, supra; Phelps Dodge Corp., supra; and SEDCO, Inc. and National Iranian Oil Co., Award No. 309-129-3 (7 July 1987), reprinted in 15 Iran-U.S. C.T.R. 23. On the other hand, with these exceptions, the Tribunal would not be warranted in ignoring the effects on the value of the property of the Iranian Revolution as they would have been perceived by a reasonable buyer in September 1979. See INA Corporation, supra; Phelps Dodge Corp., supra; Thomas Earl Payne, supra; Sola Tiles, Inc. and The Government of the Islamic Republic of Iran, Award No. 298-317-1 (22 April 1987), reprinted in 14 Iran-U.S. C.T.R. 223; and SEDCO Inc., supra.

136. The discount rate used by the Claimant to calculate the present value of the estimated future earnings from its JSA interests discounts that return for the time value of money and for risks associated with the venture.[34] The Claimant arrived at its discount rate of 4.5 percent, largely on the expert advice of Professor Myers, in the following way. From a review of average real rates of return to investors in U.S. non-financial corporations, Professor Myers derived, as a starting point, a benchmark rate of 6 percent. Next, he found that the relative asset risk of a sample of large oil companies that he examined was lower, and he calculated the real weighted average cost of capital for these companies at 4.5 percent. Based on his belief that "Phillip's rights to production from the Rostam and Rakhsh fields were relatively low-risk assets, no riskier than oil company assets in general," he concluded that 4.5 percent was also the appropriate discount rate to be applied in this

[34] Since the future expected cash flows are expressed in constant 1979 dollars, the Claimant's discount rate contains no additional factor for inflation.

Case. Underlying his conclusion was the assumption that high risks associated with interests in oil reserves in politically unstable areas to a large extent reflect the possibility of expropriation, which, in his view, was to be excluded in this Case. The remaining risks associated with the Claimant's JSA interests in Iran were not significantly higher than those associated with interests in oil reserves elsewhere: they were either eliminated, or "diversified away," because Professor Myers assumed that the property to be valued was held in a diversified portfolio of other assets; or else they affected the risk of investment in oil reserves generally and were thus incorporated in the suggested discount rate. Professor Myers suggested that risks and uncertainties related to the other three components of the DCF analysis be accounted for in the respective forecasts, and the Claimant asserted that this was the way they were dealt with in its calculations.

137. The principal criticisms made by the Respondents with regard to the Claimant's discount rate is that it completely ignores the particular risks inherent in IMINOCO's operations and the profound changes in Iran resulting from the Revolution. The Respondents asserted that there were greater political risks in Iran and the Middle East generally than, for example, in the United States or the North Sea, and they also disagreed with the Claimant's premise that its JSA interests should be valued assuming that a hypothetical buyer would add them to a diversified asset portfolio. The Respondents point out that the sensitivity of the DCF calculations to changes in the discount rate is greater than to changes respecting any of the other three factors.

138. Since the Tribunal has decided to refrain from performing an alternative DCF calculation, but rather to determine reasonable ranges of accuracy for the various components of the Claimant's DCF analysis, it does not substitute the Claimant's discount rate with its own, but rather identifies which risks are relevant to such an analysis and determines their approximate effect on the value of the Claimant's JSA interests. After careful consideration of the relevant arguments and evidence, the Tribunal concludes that the following risks must be analyzed to determine what effect they reasonably could have been expected in September 1979 to have on the value of the Claimant's JSA interests: first, the risk that not all recoverable oil might, as a practical matter and for various reasons, be produced during the remaining years of the JSA; second, the risk that world oil prices during the remaining term of the JSA might prove lower than the range foreseen; and third, the risk of coerced revisions of the JSA in the future that would reduce its economic benefits.

139. At the outset, and before considering these risks, it should be noted that the Respondents suggested that Article 35 of the JSA, which made the Claimant's interests transferable only with the consent of NIOC created an additional risk that affected the value of those interests. To accept such a conclusion, however, would require an assumption that NIOC would act in bad faith to prevent a sale of these interests to a qualified buyer, and that is an assumption the Tribunal could not fairly make. Moreover, the Respondents have presented no evidence to show that such an agreement-to-transfer provision is peculiar to the JSA and is not common to most oil exploration and production arrangements throughout the Middle East and therefore might depress its value in relation to alternative opportunities.

140. The Respondents also asserted that the value of the Claimant's JSA interests was reduced because there was in 1979 a tendency for western oil companies to move away from the Persian Gulf and the Middle East, but no evidence was presented in support of that assertion.

a) Risk that not all recoverable oil would as a practical matter be produced

141. This risk, which arises from various quite separate risks, would have been apparent to any reasonable buyer and would inevitably have reduced the value of the Claimant's JSA interests. Reduced future oil production obviously reduces directly future cash flows and, as a result, the market value of the property. The difficult problem is to determine the extent of such reduction. In order to do that, each of the component risks must be examined, beginning with the most important, which may be called "policy" risks to future oil production.

142. First, there was the risk that future recovery would be reduced as a result of new post-Revolution, Iranian Government policies to limit Iranian oil production. Second, there was the analogous risk that, in order to defend oil prices, the Organization of Petroleum Exporting Countries ("OPEC"), of which Iran was and is a member, would restrict Iranian oil production. Third, there was the risk that cash shortages by NIOC, competing Iranian priorities or other considerations of production policy would delay significantly, or even prevent, new investment, particularly in secondary recovery projects. In support of the negative effects of these three risks, the Respondents point out correctly that, under Article 21 of the JSA, the Claimant did not own the oil in the ground, but only gained title to one-sixth of the oil at the well head, that is, after recovery, and that all investment and operating decisions by IMINOCO, the operating company, required the consent of NIOC, which was a fifty percent partner. In response, the Claimant argues that it had a contractual right under Articles 13(1) and 21(1) of the JSA to have IMINOCO recover all oil that could be recovered and sold economically, and moreover that the Respondents' self-interest could be expected to make them want the same thing. Consequently, the Claimant's DCF analysis proceeds in general from the assumption that a buyer in 1979 would confidently expect essentially full depletion of the reservoirs during the remaining life of the JSA.

143. Article 13(1) in relevant part obligates the Parties to the JSA (including NIOC and the Claimant), acting through IMINOCO:

> To exert their utmost efforts to develop any discovered fields to the maximum extent consistent with good petroleum industry practice and having due regard at all times to the market availability to extract such Petroleum as shall be discovered at a rate ensuring that such part of the discovered reserves as may be economically extracted and sold by the utilization of the most up-to-date methods and practices of the petroleum industry shall be fully extracted during the term of the Agreement....
>
> Article 21(1) states:
>
> Each Party shall exercise its utmost efforts in order to ensure the sale of the maximum possible quantity of Petroleum economically justified.

144. The Respondents emphasize that these obligations are themselves conditioned on economic justification. In addition, they stress the importance of Article 13(7) which obligates the Parties:

To be always mindful, in the conduct of their operations, of the rights and interests of Iran.

145. The Tribunal must stress, once again, that the only relevance of these questions in the present Case is with respect to their impact on the value of the Claimant's property in September 1979. In other words, the Tribunal need not determine what, in general, is the proper interpretation or extent of these production obligations and of the obligation to be mindful of Iran's interests, but merely to what extent a reasonable buyer would have considered at that time that the risks of reduced future oil recovery mentioned above were offset by those production obligations of the JSA. Given the range of future oil prices he could have anticipated over the term of the JSA (as discussed in Section 3. supra, a buyer would have been justified in considering that substantial production under the JSA would constitute oil "economically extracted" as that term is used in Article 13(1) and therefore that he would be able to argue plausibly that continued extraction of oil at the maximum feasible rate was required by the JSA. Thus, he would have been able to argue that in this situation no extraction limitations could be imposed by NIOC or by Iran and that they could not refuse to authorize reasonable new expenditures designed to maintain production. On the other hand, and quite apart from the provision of Article 13 (7), he would also have been aware of several countervailing considerations.

146. First, while pre-Revolutionary Iran had consistently favored--even demanded--maximum feasible oil production, there could have been no certainty that the new Islamic Republic would maintain that policy, and there were indications soon after oil production resumed in March 1979 that production was being held below capacity by direction of the Government. Second, the reluctance of the new Government to permit significant numbers of expatriate oil industry technicians and administrators to return to Iran had been both stated and demonstrated. Although the effect of the absence of such personnel on future production is difficult to estimate, it would necessarily have had some depressing effect on the extent of new drilling operations and on secondary recovery projects. Third, as Dr. Odell pointed out, there was an awareness among industry experts, even in 1979, that, considering that production was already then exceeding consumption, the increased oil production that could be expected to result from the substantial increase in prices then underway could well require OPEC and other major producers eventually--perhaps by the mid-1980's--either to restrain production or to see prices fall. Thus, a buyer in September 1979 could not have expected a continuation straight through until 1999 of both a steady increase in prices and a maximization of production.

147. Moreover, the evidence presented in this Case makes clear that, during the years prior to the Iranian Revolution, NIOC frequently pressed for investment, for example for secondary recovery, which the Claimant and the other Second Party companies were unwilling to authorize at that time and that in those instances, the decision-making arrangements of the JSA prevented the investments, despite NIOC's ability to argue that they were required by Article 13(1). Considering this history, a buyer in 1979 could not reasonably have expected that the reservoirs covered by the JSA would be fully depleted by 1999. On the other hand, a buyer could reasonably have anticipated that agreement would be given for the necessary investments required to prevent substantial decreases in production including the completion (albeit perhaps with several years delay) [35] of the Rakhsh Arab C secondary recovery project then underway. Whether he could have reasonably

[35] In this connection, the Tribunal notes that delays in production in 1979 and the years immediately following have a much more significant negative effect on the September 1979 value of the Claimant's JSA interests than do delays in the later years.

expected agreement for the additional new investment to proceed promptly with the Rostam Shuaiba secondary recovery project is far more uncertain, however, and further significant delays were evidently a serious risk. It is recalled that, to a large extent, the great disparities between the Parties' and their experts' production forecasts result from different assumptions about secondary recovery, and the Respondents even suggested that the two streams of cash flow be separated and assigned different discount rates to give adequate weight to their different risks. In the same vein, one of the Claimant's experts, Professor Robinson, acknowledged in a discussion of commercial risks that "expenditures on the field carry few commercial risks, though some will be riskier than others: for example, attempts to boost reserves recovery by secondary... recovery methods."

148. On balance, the Tribunal concludes that the value of the Claimant's JSA interests in September 1979 would have been reduced substantially by virtue of the perceived risks that Iranian or OPEC policies and NIOC priorities and financial and production limitations might prevent recovery of some of the oil that otherwise could be recovered.

149. Additional, non-policy risks that would have been apparent to a buyer would be the risks of delays or interruptions of production as a result of force majeure, such as war, further civil unrest or strikes by the labor force. The Tribunal is not persuaded, however, that such risks would have had a significant effect on the value of the Claimant' JSA interests. Short-term disruptions, such as those caused by strikes, would not have had a significant impact on total production, as subsequent production could have been increased, within limits, to compensate. Moreover, NIOC and Iran could have been expected to share the same desire as a buyer of the Claimant's JSA interests to reduce the adverse impact of such disruptions. While civil unrest continued in Iran until September 1979, the Islamic Republic was moving effectively to restore order, and the effect of such unrest on off-shore oil operations seems questionable in view of the evidence of actual production levels until that time. With respect to long-term disruptions, while in retrospect it is known that war came to the Persian Gulf in 1980 and resulted eventually in profound and even disastrous consequences for off-shore oil operations, including those of IMINOCO, the apparent likelihood in September 1979 of such a war is debatable. Moreover, Article 16(1) of the JSA provides for an automatic extension of the term of the JSA equivalent to any disruption caused by force majeure that lasts one year or more. The Tribunal concludes that in September 1979 it could not reasonably have been assumed that these risks would have had a significant effect on the value of the Claimant's JSA interests.

b) Risk that world oil prices from 1979 to 1999 would prove lower than the range foreseen

150. As concluded in Section 3. supra, a reasonable buyer in September 1979 would have foreseen a range of future prices bounded, at the top, by a price path such as that proposed by Professor Robinson and, at the bottom, by the most conservative contemporaneous forecast in evidence, that by Chase Econometrics. Given that such predictions are uncertain at any time and would have seemed particularly uncertain in 1979, the Tribunal must determine whether a buyer of the Claimant's JSA interests would have reduced further the price it would be willing to pay to compensate for the risk that prices might ultimately turn out to be lower than those in that range. Professor Myers, the Claimant's expert on the discount rate, acknowledged that the oil price risk

was a kind of risk that could not be diversified away, and that an increase of that risk would have to be reflected in the discount rate. Having determined not a single price path, but a range of price expectations which seemed reasonable in September 1979, the Tribunal believes that the possibility of prices lower than the bottom range could then have been seen as no more likely than the offsetting possibility of prices higher than the top of the range, and that therefore, based only on the information available at that time, no further reduction of the price would have been warranted by virtue of such a risk.

c) Risk of coerced revisions in the JSA

151. Finally, there is the risk of further forced modifications in the JSA that could adversely affect the value of the related interests. Certainly such a risk would have been apparent to a buyer in September 1979, for, as has been seen, despite the provisions of Articles 37 and 43 of the JSA, the Respondents were able in 1977 to compel the Claimant and the other companies comprising the Second Party to accept (with retroactive effect to 1974) modifications in the tax and royalty regime of the JSA that reduced considerably the value of the Second Party's interests. It must be noted, however, that similar changes were, at the same time, being insisted upon successfully by many other oil-producing states. In effect, these changes in revenue arrangements, which followed the 1973 oil price shock, were industry-wide changes which transferred from the multinational oil companies to the states where the oil reservoirs were located the bulk of the benefits of the drastic rise in crude oil prices. However reluctantly and however slowly, the industry accepted these changes, rather than resort to arbitration, and began to rely for profits less on crude oil production and more on refining, marketing, and other so-called "downstream" activities.

152. In light of this experience, the Respondents argue, in effect, that any buyer of the Claimant's interests in the JSA would have discounted the value of those interests because of the risk that Iran and NIOC might, once again, insist on drastic revisions of the JSA, for example with respect to taxes or foreign exchange, or even to the point of expropriation, that is termination of the JSA, in return for payment to the Claimant of net book value and the substitution of an oil-purchase agreement by virtue of which the Claimant could buy certain quantities of crude oil from NIOC. The Tribunal agrees that a reasonable buyer in September 1979 would have accounted for the risk of coerced revisions of the JSA, but it cannot agree that such risk extends that far. As noted supra, the Tribunal cannot take into account any reductions in value resulting from acts or threats of expropriation by the Respondents. Moreover, any buyer of the Claimant's JSA interests in 1979 would have recognized that the changes in financial terms successfully insisted upon by the oil-producing countries in the 1970s occurred when posted prices of crude oil were rising tremendously in a very short time.

153. The fact that the Claimant and others accepted certain changes in 1977 did not, however, render the provisions of Articles 37 and 43 of the JSA meaningless and would not have been perceived by a buyer in 1979 as doing so. While such clauses can, as held in the Aminoil Award for the so-called stabilization clauses there (see Aminoil, supra, paras. 98, 99), be transmuted by events, the agreement of 1977 to modify the JSA in ways that prevented the Claimant from reaping most of the benefits of the sharp increase in crude oil prices, but still left it with a profitable operation, was not sufficient by itself to warrant a conclusion that a buyer in 1979 would have considered Articles 37 and 43 of the JSA to have lost all their force. Although a buyer in 1979 would have been aware of

the 1977 agreement and, as a result, could have been expected, in determining an offer for the Claimant's JSA interests, to take into account the risk of future pressures by the Respondents to further modify the JSA, particularly if oil prices rose significantly in the future, the significance of the risk that buyer would face would depend on the price forecasts he has used. Even when relying on the most conservative forecast envisaged by the Tribunal in Section 3, supra, the real increase in 1979 dollars would have amounted to 35 percent by 1989 and to 63 percent by 1999. Considering the past experience in the oil industry, the 1977 agreement and the fact that the 1979 price of approximately U.S.$22 per barrel was already considerably higher than the prices at the time of the 1977 Agreement, a buyer would take this risk very seriously. It could indeed not be excluded that the oil producing countries, faced with such substantial oil price increases, would be in a position, by coerced revision of their agreements with the oil companies, to keep the profits of the oil companies, in real dollars, at a level not significantly higher than the 1979 figures. On balance, the Tribunal concludes that the value of the Claimant's JSA interests in September 1979 would have been reduced very significantly by virtue of the perceived risk that a buyer might encounter irresistible future pressures to modify the JSA in ways that would greatly reduce the anticipated future profitability of those JSA interests.

6. Conclusions

154. At the Hearing, the Claimant reduced its claim with respect to the value of its JSA interests to conform to the slightly lower oil production estimates (352,155,000 barrels) made by its chosen expert witness, Core Lab. As so reduced, the claimed value is U.S.$159,199,000. As noted supra, this claimed value was calculated by use of a DCF formula.

155. The Tribunal has also noted supra the extent of its disagreements with the several elements used by the Claimant in support of its claimed value. With respect to the oil production that would, in 1979, have been reasonably anticipated during the remaining period of the JSA, the Tribunal's conclusions range between approximately eighteen and twenty percent below those of Core Lab. With respect to costs, the Tribunal has concluded that the Claimant's estimates are substantially too low and that, as a result, the value of the Claimant's interests in the JSA should be reduced by two to three percent from the claimed amount. With respect to the crude oil prices that could reasonably have been anticipated in 1979 to prevail during the remainder of the JSA period, the Tribunal has determined that they would be lower than those assumed by the Claimant and in all likelihood closer to those foreseen in the more conservative Chase Econometrics forecast. With respect to risks, the Tribunal has concluded that a buyer of the Claimant's JSA interests in September 1979 would reasonably have seen the risks as much higher than the Claimant has assumed. The Claimant assumed that the risks were no higher than for any other investment by a major oil company, and it therefore used a discount rate (4.5 percent) identical to its calculations of the real cost of capital to such companies. The Tribunal has concluded, however, that the risks that would reasonably have been perceived in 1979 would have reduced the value of the Claimant's JSA interests very substantially.

156. In addition to these considerations, the Tribunal must also make certain adjustments in the compensation otherwise owing to take into account related debts owing between the Parties at the time the Claimant's interests were taken, that is on 29 September 1979. These adjustments involve, most notably, a credit to the Claimant for the net value of its one-sixth of the JSA crude oil in storage

at the end of 1978 and produced from the Rakhsh and Rostam Fields from March through September 1979 and a credit to the Respondents for the nearly U.S.$8.8 million in stated and additional payments due from the Claimant with respect to production during 1978. See, infra, para. 182 ff.

157. Finally, the Tribunal must examine whether there exist any equitable considerations which have to be taken into account. The Tribunal notes that, following the exploration and development stages, commercial production began in the Rostam Field on 19 September 1968 and in the Rakhsh Field in February 1971. Thus, at the time of taking, most of the Claimant's exploration and development costs had been amortized, but slightly less than one-third of the thirty-year production period of the JSA had passed. The bulk of the Claimant's investment had been made, but the bulk of the financial rewards the Claimant anticipated lay in the future. The Respondents, as the Tribunal has noted supra, protected their interests by compelling the Claimant and the other Second Party companies to renegotiate the financial terms of the JSA so as to leave to the Respondents the bulk of the greatly increased revenues that resulted from the 1973 oil price increases. Nevertheless, fundamental policy changes, made possible by a successful revolution, resulted in the taking of the Claimant's interests in the JSA. The Tribunal can discern in the facts of this Case no equitable considerations that would affect the compensation to which the Claimant is otherwise entitled.

158. As noted supra, the Claimant is entitled to compensation equal to the value of its JSA interests as of 29 September 1979, as adjusted for related debts owing between the Parties at that time. Taking into account all relevant circumstances, the Tribunal hereby determines that the Claimant is entitled to compensation from the Respondents in the amount of U.S.$55 million.

159. The above finding on the value of the Claimant's JSA interests and the compensation owed by the Respondents can be confirmed when an underlying asset valuation approach is used which takes as a starting point previous investment and determines future profitability based on historic performance. Whereas a DCF analysis calculates the revenue-producing potential of these interests by way of forecasting and discounting anticipated cash-flows, here the Claimant's past income patterns under the JSA are used as a basis on which to ground the valuation of that potential. While none of the Parties has put forward this method in its comprehensive form as the preferred method of valuation in this Case, there is sufficient additional material in the record with regard to the various elements making up the value of the Claimant's JSA interests for this valuation approach to provide useful information to assist the Tribunal in its valuation task.

160. The value of the investments which the Claimant made in tangible assets until the date of taking is calculated on the basis of their depreciated replacement value, which means that the net book value of the original investments is escalated for variations of costs in time and adjusted for various other factors. Based on a Summary of IMINOCO Annual Expenditures (1965-1979) and on an analysis of IMINOCO's Annual Report for 1978, the Claimant's share of the net book value of past investments can be calculated at approximately U.S.$17 million as at 31 December 1978. Certain necessary additions and depreciation and amortization for the period between 1 January and 29 September 1979 result in an adjustment of this figure to U.S.$16.5 million.

161. Since this net book value gives an accounting figure of the historic cost of the investments and cannot be considered adequate for purposes of the present valuation, it must be escalated to a

September 1979 figure by applying an appropriate index that reflects yearly changes in construction costs, thereby arriving at a depreciated replacement value. Two factors have to be taken into account here: one is the age of the investments concerned and the other is the appropriate index to be applied. The record shows that the tangible assets at issue were, on average, five and a half years old. Having considered the material on inflation rates submitted by the Parties as well as other published indices (such as, e.g., the IMF International Financial Statistics, IMF Yearbook 1987), an average annual rate of inflation of approximately 7 percent is used to escalate the net book value of the investments the Claimant made until the taking date. This means that an uplift factor of 35 to 40 percent is applied to the net book value of U.S.$16.5 million to cover the changes in value over the five and a half-year period of average age of the tangible assets as determined above, resulting in a depreciated replacement value of the Claimant's tangible investment in a range of U.S.$22 to 23 million.

162. Applying this valuation method which uses as its base previous investment and historic performance, the expectations of future income from the revenue-producing potential of the Claimant's JSA interests are measured by a multiple of past yearly income. The past performance of the Claimant under the JSA has been determined by reference to the relevant financial statements, namely profit calculations based on computations by Ernst & Whinney for 1979 which have been submitted by the Claimant, and IMINOCO's Annual Report and Balance Sheet for 1977 which have been submitted by the Respondents. Based on actual production figures from IMINOCO of almost 40,000 barrels per day and actual market prices of oil which the Claimant has submitted, an annual income for the Claimant of approximately U.S. $3.2 million is calculated. Using the same method of calculation as Ernst & Whinney have used for 1979, income for 1977 can be established on the basis of actual liftings, costs and oil prices for this year at nearly U.S.$3 million. Disregarding the decrease in the production of oil caused by the Revolutionary events in the last months of 1978, it is assumed that the Claimant earned the same level of income also in that year. Based on the above, the Claimant's annual income for the most recent years of production can thus be established at an average of U.S. $3 million.

163. It has been argued that past earnings are, because of unpredictable changes in the future, an unreliable measure of value here. Past earnings may, however, be used for valuation where future earnings are expected to be reasonably predictable on the basis of past earnings. While such factors as production and price of oil--and hence cash-flow--could be expected to vary from year to year throughout the remainder of the JSA, overall fluctuations in these factors could be expected to be not too significant. As far as the quantity of recoverable oil is concerned, whereas there had been a downward trend before the taking date, this could be expected to be reversed through secondary recovery efforts whose completion could reasonably be foreseen, and consequently, the use of past earnings that are based on production in an order of magnitude of the average daily production around the time before the taking (i.e. 40,000 barrels a day[36] does not seem unreasonable. As to future oil prices, given the history of revisions of the JSA, particularly as laid down in the 1977 amendment which allocated the increase in benefits stemming for oil price rises beyond the level of general inflation basically in favour of the Respondents, it cannot be excluded that any further price increases would again result in the Respondents obtaining, albeit coerced, agreement to further corresponding revisions of the JSA. Therefore, it does not seem unreasonable to assume that the two principal factors determining income, that is, production and oil price, would, on average

[36] Assuming daily production over the remainder of the JSA, this average daily production would result in a total production of the same order of magnitude as found in paragraph 124, supra.

over the remainder of the JSA, not show significant changes, and consequently a valuation using past performance which was based on the same parameters can be used in this Case in order to verify the figures arrived at supra.

164. The application of a reasonable rate of return (excluding an inflation factor) of 5 percent, which according to the above does not require any further adjustment for future changes, to the yearly income of approximately U.S. $3 million over the remainder of the JSA results in an income for that period of approximately U.S. $38 million in 1979 dollars.

165. The sum of this value and the Claimant's tangible assets thus lies in a range comparable to the compensation found owing supra.

V. COUNTERCLAIMS

166. The Respondents have presented seven Counterclaims in this Case, as described in paragraph 2 supra. While the amounts claimed by the Respondents with respect to these Counterclaims have varied during the pleadings, the ultimate amounts appear to be the following:

a. Counterclaim 1--bad oil field practices--U.S.$455,459,691 which is composed of fourteen sub-claims for specific practices.

b. Counterclaim 2--commerciality reports--U.S.$748,000,000.

c. Counterclaim 3--debt to NIOC for oil delivered--U.S.$4,806,754.42.

d. Counterclaim 4--debt to IMINOCO for services--U.S.$23,253.

e. Counterclaim 5--specific performance or damages for goods priced at U.S.$2,223.45 and not delivered to IMINOCO.

f. Counterclaim 6--

(i) Taxes on salaries of employees owed by the Claimant--U.S.$51,725.

(ii) Contractor's tax owed by IMINOCO--U.S.$282,754.

(iii) Stated payment owed by the Claimant--U.S.$5,323,826.

(iv) Additional payment owed by the Claimant--U.S.$3,442,913.

(v) Shortfall owed by the Claimant on 1978 taxes (apparently the "additional payment")--U.S.$4,083,518.

g. Counterclaim 7--a claim for an indeterminate amount as contribution and indemnity for IMINOCO's liabilities to other claimants before the Tribunal.

On all of these amounts, interest is requested, as well as penalties on items f(i), (ii), and (v).

A. Admissibility

167. Before turning to the questions of its jurisdiction over these Counterclaims and their merits, the Tribunal must first consider the Claimants' argument that they are not admissible because they were not filed within the applicable time limits established by the Tribunal. The relevant facts are as follows. The filing date for the Statement of Defense was first set for 15 April 1982 and then extended to 15 June 1982. That date was not met, but a Statement of Defense was filed on 24 May 1982 on certain jurisdictional issues, and the Tribunal proceeded to consider those issues and issued an Interlocutory Award, No. ITL 11-39-2, on 30 December 1982. After concluding that the alleged nullification of the JSA did not affect the Tribunal's jurisdiction over the Claim, the Award ordered the Respondents to file their Statements of Defense on the other issues, including the merits, by 30 April 1983 and, referring to Article 19, paragraph 3, of the Tribunal Rules, stated that the same time limit applied to any counterclaim. In late April of 1983 the Respondents requested a four-month extension. The Chairman of Chamber Two at that time, Judge Pierre Bellet, responded in a memorandum to the Agent of the Islamic Republic of Iran dated 27 April that an extension could not be granted, as the time limit had been set forth in an Award which could not be modified without the consent of all Parties. Judge Bellet added that the Respondents should be able to provide a written statement, even if brief, which could be completed in further filings.

168. On 2 May 1983, the Agent of the Islamic Republic of Iran filed a letter to the Chairman of Chamber Two which, while objecting to the refusal to extend the deadline, denied the claims in this Case (and in Case 55, where there was an identical time limit) and stated that "the Respondents have with respect to the present cases very substantial counterclaims amounting to well over one and a half thousand million dollars. The details and particulars of these counterclaims, supported by necessary evidence and documents, shall be submitted to the Tribunal in future together with the Statements of Defense, as envisaged by the Tribunal's Order of 27 April 1983."

169. Following that exchange, the Tribunal established a schedule for the filing of evidence and briefs. The Claimant filed its evidence and brief on 15 August 1983. On 24 October 1983, the new Chairman of Chamber Two, Judge Willem Riphagen, informed the Agent of the Islamic Republic of Iran that he assumed that the Respondents' evidence and briefs (then due 15 November) would set forth in detail their defenses and any counterclaims they intended to make. After several extensions of time limits for the Respondents to file their evidence and briefs, they filed on 15 June 1984 two volumes entitled Defense and Counterclaims, in which their Counterclaims were described. During the next several years, the Claimant and the Respondents, in sequential filings, submitted further briefs and evidence concerning the Counterclaims.

170. Article 19, paragraph 3, of the Tribunal Rules states:

> In the Statement of Defense, or at a later stage in the arbitral proceedings if the arbitral tribunal decides that the delay was justified under the circumstances, the respondent may make a counter-claim or rely on a claim for the purpose of a set-off, if such counter-claim or set-off is allowed under the Claims Settlement Declaration.

This provision gives the Tribunal considerable discretion to determine whether a late-filed counterclaim may be admitted. In the present Case, the Tribunal has no difficulty in using that

discretion to admit the Counterclaims, particularly in view of the statements by Judge Bellet and Judge Riphagen referred to supra. Moreover, the Counterclaims were filed more than two and one-half years prior to the Hearing, and all Parties had an adequate opportunity to address them. Accordingly, the Tribunal decides that the Counterclaims are admissible.

B. Jurisdiction

171. The Tribunal will consider first those Counterclaims involving issues of jurisdiction or standing, that is, Counterclaims three through seven.

1. Counterclaim Three

172. Respondents allege that Phillips, the corporate parent of the Claimant, has not paid NIOC for 27,607 metric tons of Iranian light crude oil alleged to have been delivered on 15 October 1979, under NIOC Invoice No. ME/1014A/79, and pursuant to the terms of the Crude Oil Sale/Purchase Contract No. 161 between NIOC and Phillips. NIOC claims damages of the U.S.$4,806,751.42 invoiced price, plus interest.

173. The Claims Settlement Declaration provides that the Tribunal's jurisdiction over counterclaims will be limited to those which arise "out of the same contract, transaction, or occurrence that constitutes the subject matter of that national's claim...." Claims Settlement Declaration, Article II, paragraph 1.

174. This Counterclaim is not against the Claimant, but against Phillips, the parent company, which is not a party in this Case. Only Phillips is alleged to be a party to the Crude Oil Sale/Purchase Contract No. 161 and only Phillips is named as a purchaser in Invoice No. ME/1014A/79. By definition, a counterclaim must be directed against a claimant, and the Algiers Accords do not authorize third parties to be impleaded. The Tribunal has previously considered situations such as this in dismissing counterclaims for lack of jurisdiction. In American Bell International Inc. and Islamic Republic of Iran, Interlocutory Award No. ITL 41-48-3 (11 June 1984), reprinted in 6 Iran-U.S.C.T.R. 74, the Tribunal held that counterclaims could not be brought against AT & T, the parent of the Claimant, or against anyone other than the Claimant itself. Id. at 14-15, 6 Iran-U.S.C.T.R. at 82-83.[37] The practice of this Tribunal is, therefore, to require a strict congruence of identity in the Parties before allowing a counterclaim to proceed.

175. The Tribunal is uninformed whether NIOC has brought elsewhere a claim against Phillips on this

[37] To the same effect are Lischem Corp. and Atomic Energy Organization of Iran, Award No. 140-194-2 (29 June 1984) at pp. 5-6, reprinted in 7 Iran-U.S.C.T.R. 18, 21 (counterclaims should have been brought against partner, and not against another corporation); Arensberg and Ministry of Housing, Award No. 213-61-1 (27 February 1986) at pp. 10-11, reprinted in 10 Iran-U.S.C.T.R. 37, 44 (held that counterclaims against an Iranian corporation, wholly-owned by claimant but not involved in the claims brought to the Tribunal, were not admissible); Exxon Research & Engineering Co. and National Iranian Oil Company, Award No. 308-155-3 (9 June 1987), reprinted in 15 Iran-U.S.C.T.R. 3 (counterclaim filed against parent corporation of claimant); Morrison-Knudsen Pacific Ltd. and Ministry of Roads and Transportation, Award No. 143-127-3 (13 July 1984) at p. 51, reprinted in 7 Iran-U.S.C.T.R. 54, 82 (counterclaim against claimant's affiliated company not admissible).

oil purchase contract, but other forums have been available in which NIOC could seek redress. In the present Case, it is clear that the Tribunal has no jurisdiction over this Counterclaim.

176. In view of this finding the Tribunal need not examine whether this Counterclaim arises out of the "same... transaction or occurrence that constitutes the subject matter of" the Claimant's Claim.

2. Counterclaim Four

177. The Respondents allege that the Claimant wrongfully refused to pay IMINOCO 1,642,876 rials for "services provided," at a time or times unspecified, "during the term of the Joint Structure Agreement." The Respondents have not, however, identified the specific nature of the services at issue, the date or dates on which IMINICO allegedly provided the services, or the circumstances of the Claimant's alleged refusal to pay. Furthermore, the Respondents have not factually substantiated or defined this Counterclaim. The Claimant has denied all knowledge of such services.

178. The Claimant argues that the Tribunal lacks jurisdiction over this Counterclaim, as the Counterclaim does not arise out of the same contract, transaction, or occurrence as the claims, and that the Respondents lack standing to make the claim, as the claim is one of IMINOCO, which is not a Respondent in the Case.

179. The Respondents have failed to establish that this Counterclaim arises from the same contract, transaction, or occurrence as the claims. Therefore, the Tribunal must dismiss it for lack of jurisdiction and need not consider the question of standing or the merits.

3. Counterclaim Five

180. The Respondents have alleged that Phillips (Specialty Chemical Branch) failed to deliver "identified goods" worth U.S.$2,223.45 to IMINOCO under Purchase Order No. TRR-80087 HO/CO101, dated 10 October 1977. The Respondents seek specific performance or damages in an unspecified amount, plus interest. The Claimant asserts that it never had a specialty chemicals branch and never sold specialty chemicals to any party. The Claimant suggests that the purchase order was undoubtedly with the parent corporation, Phillips, which in 1977 included an operating unit known as the Speciality Chemicals Branch. The Claimant also argues that the Respondents lack standing to assert claims of IMINOCO. The Respondents have not provided any additional factual allegations concerning the non-delivery of these chemicals to Iran, nor did they submit a copy of the purchase order with their Counterclaim, or otherwise identify the goods at issue.

181. The Respondents have failed to establish that this Counterclaim arises from the same contract, transaction, or occurrence as the claims or even that it arises from a contract with the Claimant, as opposed to its parent corporation. Therefore, the Tribunal must dismiss the Counterclaim for lack of jurisdiction and need not consider the question of standing or the merits.

4. Counterclaim Six

182. The Respondents allege that the Claimant failed to pay three categories of taxes and royalties owed to them. First, they argue that non-payment of taxes on salaries of the Claimant's employees, pursuant to the Direct Taxation Act, amounted to a principal sum of 1,548,327 rials with additional penalties and delayed payments amounting to 2,106,054 rials. Secondly, they claim that the Claimant is liable for IMINOCO's failure to pay the contractor's tax, pursuant to the Direct Taxation Act, with a principal sum due of 7,626,251 rials, with additional penalties and delayed payments amounting to 12,350,338 rials. Finally, they assert that the Claimant owes U.S.$5,323,526 for stated payments, and U.S.$3,442,913 for additional payments due in 1979 under the Joint Structure Agreement, with interest, and U.S.$4,083,518 for a short payment in respect of "taxes" (presumably additional payments) due in 1978.

183. The Claimant contests the Tribunal's jurisdiction over tax counterclaims and the Respondents' standing to bring them, noting that the Ministry of Finance is not a Respondent. It also denies liability for IMINOCO's taxes. With respect to the alleged short payment in 1978, the Claimant has submitted evidence that the payment was, in fact, made.

184. The first two of these alleged tax liabilities are clearly outside the jurisdiction of this Tribunal. This Tribunal has consistently ruled that it has no jurisdiction over counterclaims arising from the tax laws of a state. For example, in T.C.S.B., Inc. and Iran, Award No. 114-140-2 (16 March 1984) at pp. 23-24, reprinted in 5 Iran-U.S.C.T.R. 160, 173, Chamber Two held that it lacked jurisdiction over counterclaims for taxes and social insurance contributions, which "must be deemed to arise out of the application of the law to the contractor's particular situation...." In other words, counterclaims would only be permitted for those liabilities which arose out of the contract on which the claim was based, and not those which arose out of the general operation of Iranian law.

185. Likewise, Chamber One in Questech and Ministry of National Defence, Award No. 191-59-1 (25 September 1985) at p. 38, reprinted in 9 Iran-U.S.C.T.R. 107, 134, held that:

> The obligation to pay taxes is a legal relationship that arises out of the application of the law to a factual situation of a person or legal entity rather than a contractual agreement that exists between the parties to a contract by virtue of that contract.

Id.; accord, General Dynamics Telephone Systems and Islamic Republic of Iran, Award No. 192-285-2 (4 October 1985) at p. 25, reprinted in 9 Iran-U.S.C.T.R. 153, 167; AFHI Planning Associates, Inc. and Iran, Award No. 234-179-2 (8 May 1986) at p. 6, reprinted in 11 Iran-U.S.C.T.R. 168, 172; Cosmos Engineering, Inc., Award No. 271-334-2 (24 November 1986) at p. 5, reprinted in 13 Iran-U.S.C.T.R. 179, 182; FMC Corp. and Ministry of National Defence, Award No. 292-353-2 (12 February 1987) at p. 11, reprinted in 14 Iran-U.S.C.T.R. 111, 119.

186. Therefore, counterclaims for the Claimant's alleged liabilities under the Direct Taxation Act are not within the Tribunal's jurisdiction because they arose from the operation of Iranian law, rather than from the Joint Structure Agreement which is the subject of the underlying claim. Liabilities of IMINOCO, of course, including tax liabilities, have some effect on the value of the Claimant's interests in the JSA (although in this Case only a slight effect) and have been taken into account by

the Tribunal in reaching its conclusions on valuation in Section IV.C. supra.

187. The Counterclaim for stated and additional payments for the fourth quarter of 1978 due in early 1979 is now moot, as the Tribunal has already adjusted the compensation to which the Claimant is entitled for the taking of its JSA interests by deducting that amount in Section IV.C. supra.

188. The Counterclaim for short payment of the 1978 additional payment by U.S.$4,083,518 has not been proved and therefore is dismissed on the merits.

5. Counterclaim Seven

189. In this Counterclaim, the Respondents note that a number of claims have been filed with the Tribunal in which the claimants seek to hold IMINOCO, Iran and/or NIOC or other Iranian respondents responsible for alleged liabilities of IMINOCO. The Respondents state that "Insofar as these liabilities (if any) arose prior to the nullification of the Joint Structure Agreement, NIOC/Iran counterclaims against Phillips for payments of half of any such sums awarded pursuant to the terms of the Joint Structure Agreement." In essence, the Respondents seek an award that the Claimant is obligated to contribute one-half of any liability the Tribunal may at any time decide is a liability of IMINOCO.

190. As so formulated, this Claim by the Respondents is not a claim that was outstanding on the date of the Algiers Declarations and therefore is not a claim within the Tribunal's jurisdiction under Article II, paragraph 1, of the Claims Settlement Declaration. In this connection, the Tribunal notes that, while in principle all of IMINOCO's liabilities and assets as of 29 September 1979 are relevant to the value of the Claimant's interests in the JSA on that date, adequate evidence has not been presented in this Case to permit the Tribunal to quantify them.[38] It is clear in any event that their effect on the value of the Claimant's interests would be only minimal.

C. The Merits

191. Counterclaims one and two raise no jurisdictional questions, as both are based on alleged violations by the Second Party of its obligations under the JSA. The alleged liability of the Claimant for violations committed by the Second Party (of which it comprised a third) is based on Article 12, paragraph 2, of the JSA, which provides:

> Notwithstanding the provisions of this Agreement, the entities comprising Second Party as defined in the preamble of this Agreement shall each jointly and severally be responsible for the performance of all the obligations undertaken and for the full payment of all taxes, dues, charges

[38] The Tribunal notes that the following Awards on Agreed Terms, according to which Iran and/or NIOC had to pay certain amounts for IMINOCO were filed prior to the Hearing in this Case. See Reading & Bates Corporation and Islamic Republic of Iran, Award No. 95-28-1 (19 December 1983), reprinted in 4 Iran-U.S. C.T.R. 199; Halliburton Company and Islamic Republic of Iran, et al., Award No. 200-12/13-1 (20 November 1985), reprinted in 9 Iran-U.S. C.T.R. 310; Dresser Industries Inc. and Islamic Republic of Iran, Award No. 203-467/468/469/471-2 (25 November 1985), reprinted in 9 Iran-U.S. C.T.R. 346. The Respondents, however, did not in their filings thereafter, nor during the Hearing, give any quantification of these alleged liabilities.

and all other payments under this Agreement.

The Claimant argues that this provision relates solely to the exploration phase of its work under the JSA, which is not the subject of a counterclaim, and moreover that the Respondents' settlements with the other Second Party entities, HIL and AGIP, necessarily release the Claimant from any potential liability. In view of its decisions infra, the Tribunal need not decide these issues.

1. Counterclaim One

192. The Respondents divided this Counterclaim initially into three parts, one relating to the development phase, the second to production operations, and the third to reservoir engineering. Later it was subdivided into seventeen specific allegations of bad oil field practices, although, as noted supra, ultimately damage claims have been maintained for only fourteen of those sub-claims. As reorganized and presented by the Respondents in their last filing, these comprise twelve elements of alleged damage and may be summarized as follows:

--Failure to conserve natural gas--U.S.$216,548,000

--Drilling of unnecessary wells--U.S.$17,155,703

--Use of oversized equipment--U.S.$18,251,369

--Use of subsea well completions--U.S.$23,938,999

--Use of low separator pressures--U.S.$18,899,103

--Oil dumping--U.S.$868,930

--Inadequate maintenance--U.S.$19,679,034

--Unnecessary acid treatments--U.S.$1,148,354

--Delayed well workover--U.S.$4,744,000

--Unsuitable pump selection--U.S.$4,007,702

--Impairment of oil recovery by high recovery rate--U.S.$68,000,000

193. The Respondents argue that the Counterclaim is based on breach by the Second Party of its duties under Article 13, paragraph 1, of the JSA to carry out activities through IMINOCO in accordance with the standards of good oil field practice, that the Second Party was in fact dominant in IMINOCO, that the actions complained of were proposed and implemented at the behest of the Second Party, that NIOC was dependent on the technical skills and judgment of the Second Party, and that the claimed damages were in the nature of latent defects that NIOC could discover only after it took over complete control of IMINOCO.

194. The Claimant asserts that none of the actions covered by this Counterclaim was inconsistent with good oil field practices and points out that all were actions taken by decision of IMINOCO, not by the Second Party or the Claimant. The Claimant further asserts that NIOC had participated fully and concurred in all of these decisions and had the power to prevent any decision by IMINOCO of which it disapproved, whereas the Claimant had merely a one-sixth interest and only one out of eight votes on the Board of Directors of IMINOCO. On that basis, the Claimant asserts that NIOC is precluded and estopped from now asserting that these actions, in which it acquiesced, were violations of the JSA for which the Claimant is liable to NIOC. The Claimant also asserts that the Counterclaim is barred by the doctrine of laches and that NIOC has, by its conduct, waived any claim it might otherwise have.

195. The Respondents assert that Iranian law is the governing law of the JSA and that the doctrines of laches and estoppel are not found in Iranian law.

196. At the outset, the Tribunal notes that it is not self-evident that the JSA is "governed" by Iranian law, as the Respondents assert. While Article 43, paragraph 1, states that the JSA is "made pursuant to the Petroleum Act and in Respect of any matter where this Agreement is silent, the provisions of the Petroleum Act shall apply", paragraph 2 excludes from effect any laws or regulations that may be inconsistent with the JSA, and Article 37 states that the parties "undertake to carry out the terms and provisions of this Agreement in accordance with the principles of mutual good will and good faith", that the confirmation of the JSA by the Iranian Council of Ministers constitutes acceptance by the Government of all obligations laid upon it by the JSA, and that measures to annul, amend or modify the JSA require mutual consent.

197. In any event, regardless of the extent to which Iranian law or international law may be relied upon in the interpretation of the JSA, the Tribunal is in no doubt that the doctrine of preclusion, whether based upon concepts of acquiescence, estoppel, or waiver, is available as a general principle of law which the Tribunal is authorized to consider pursuant to Article V of the Claims Settlement Declaration:

> Article V
>
> The Tribunal shall decide all cases on the basis of respect for law, applying such choice of law rules and principles of commercial and international law as the Tribunal determines to be applicable, taking into account relevant usages of the trade, contract provisions and changed circumstances.

198. The principle of preclusion has a long history in international arbitration. It has been recognized as a "general principle of law recognized by civilized nations," (see MacGibbon, Estoppel in International Law, 7 Int'l & Comp. L.Q. 468, 468 (1958) (referring to one of the essential sources of international law provided in the Statute of the International Court of Justice)), and is grounded on considerations of good faith and consistency. See Argentine-Chile Frontier Case, 38 I.L.R. 10, 77 (McNair, Kirwan and Papworth, Arbs.) (Court of Arbitration 1966); Bowett, Estoppel Before International Tribunals and its Relation to Acquiescence, 33 Brit. Y.B. Int'l L. 176 (1957). The principle of preclusion has been used to bar a party's contradictory and self-serving jurisdictional statements,[39] as well as substantive claims concerning sovereignty,[40] rights under treaties,[41] and

rights in contract and property. [42]

199. This Tribunal has also recognized that a party by its course of conduct may waive its rights to later object. For example, in Blount Brothers Corporation and The Government of the Islamic Republic of Iran, Award No. 215-52-1 (6 March 1986) at p. 17, reprinted in 10 Iran-U.S. C.T.R. 56, 68, Chamber One inferred that commencement of a construction project would have only been allowed if the appropriate clearances had been secured. Moreover, "in the unlikely event that no permit was obtained, [the Iran Housing Company] by allowing the work to proceed and accepting the completed houses, must be taken to have waived any objection it might have been entitled to raise based on the terms of the contract." Id. [43]

200. To determine whether NIOC is precluded from raising now this Counterclaim based on alleged bad oil field practices, the Tribunal must examine the evidence concerning NIOC's knowledge of and involvement in IMINOCO's decisions with respect to these practices. Did NIOC have the power, knowledge, and opportunity to object? If so, and if it failed to object, was the Claimant prejudiced by that failure?

201. As for NIOC's power to object, this is plainly evidenced by the provisions of the Joint Structure Agreement and the evidence concerning the ways decisions were taken by IMINOCO. The practices that are complained of in this Counterclaim were carried out by the employees of IMINOCO or contractors hired by IMINOCO. In no instance were the activities carried out directly by the

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[39] See, e.g., Kahane v. Parisi, 5 Ann. Dig. 213, 217 (Austro-Rumanian Mixed Arbitration Tribunal, 1929); Kunkel v. Polish State, 3 Ann. Dig. 418, 419 (German-Polish Mixed Arbitration Tribunal, 1925), in which minorities were treated as nationals during World War I, but later denied the right to make a claim, the Mixed Arbitration Tribunals held that the state authorities were estopped from later denying jurisdiction.

[40] See North Atlantic Coast Fisheries Case (U.K. v. U.S.), Hague Ct. Rep. (Scott) 141 (1910) (having sought British protection of its fisheries in certain waters on the ground that they were under the sovereignty of Great Britain, the United States could not later deny British sovereignty); Case concerning the Temple of Preah Vihear (Cambodia v. Thailand), 1962 I.C.J. 6, 32 (Judgment of 15 June) (Thailand precluded by her conduct from asserting that she did not accept a boundary she had observed for fifty years).

[41] Diversion of Water from the River Meuse (Neth. v. Belg.), 1937 P.C.I.J. (Ser. A/B) No. 70 (where Holland complained that a lock built by Belgium contravened a treaty, previous Dutch conduct estopped claim); The Case of the "Mechanic" (U.S. v. Ecuador), 3 J.B. Moore, International Arbitrations 3221, 3226 (Court of Arbitration 1862) (Hassaurek, Arb.) ("Ecuador, therefore, having fully recognized and claimed the principle on which the case now before us turns, whenever from such a recognition rights or advantages were to be derived, cannot in honor and good faith deny the principle when it imposed an obligation.").

[42] See, e.g., Shufeldt Claim (U.S. v. Guat.), 2 R. Int'l Arb. Awards 1081, 1094 (1930) (Sisnett, Arb.) ("[t]he Guatemala government having recognized the validity of the contract for six years and received all the benefits to which they were entitled under the contract and allowed Shufeldt to go on spending money on the concession, is precluded from denying its validity"); Spanish Zones in Morocco (U.K. v. Spain), 2 R. Int'l Arb. Awards 685 (1923) (Spain could not deny the rights of the British subject in certain real property, in light of a course of conduct, including the payment of rent by the Spanish government to the Claimant, that manifested a recognition of the Claimant's rights.)

[43] See also Dames & Moore and Islamic Republic of Iran, Award No. 97-54-3 (20 December 1983) at p. 18, reprinted in 4 Iran-U.S. C.T.R. 212, 221 ("It is a well-established general principle in various legal systems that in commercial relationships one party may be obliged to pay another party, with which it has been doing business, a sum specified in an invoice if it receives the invoice but does not object to it within a certain period of time."); Lischem Corp. and Atomic Energy Organization of Iran, Award No. 140-194-2 (29 June 1984), reprinted in 7 Iran-U.S. C.T.R. 18 (failure to exercise contractual right to inspect certain equipment before shipment); Howard Needles Tammen & Bergendorff and Islamic Republic of Iran, Award No. 244-68-2 (8 August 1986) at p. 43, reprinted in 11 Iran-U.S. C.T.R. 302, at 331 (failure to invoice certain overtime multipliers constituted waiver); Cosmos Engineering, Inc. and Ministry of Roads and Transp., Award No. 271-334-2 (24 November 1986) at p. 8, reprinted in 13 Iran-U.S. C.T.R. 179, 185 (rights to compensation for a period of delay in contract work waived); Whittaker Corp. and Islamic Republic of Iran, Award No. 301-286-1 (27 April 1987) at p. 11, reprinted in 14 Iran-U.S. C.T.R. 263, 270 (failure to object to cancellation of sales contract constituted waiver); Harza and Islamic Republic of Iran, Award No. 232-97-2 (2 May 1986) at pp. 37-38, reprinted in 11 Iran-U.S. C.T.R. 76, 101 (it would be "grossly unfair to permit an employer... to induce an engineer to work for five years on the promise of compensation, supported by the periodic partial payments and reassurances and then, at the end, to deny that any compensation was due."); McLaughlin Enterprises, Ltd. and Islamic Republic of Iran, Award No. 253-289-1 (16 September 1986) at pp. 7-8, reprinted in 12 Iran-U.S. C.T.R. 146, 150-51 (failure to object to performance for invoices constituted waiver).

Claimant. The contractors and employees charged with these responsibilities acted pursuant to instructions from IMINOCO management who, in turn, acted pursuant to specific directives and policies of the IMINOCO Board of Directors.

202. Responsibility for the management of IMINOCO was vested in its Board of Directors. IMINOCO Statutes, art. 14.1. The IMINOCO Board was made up of eight Directors, four of whom (including the Chairman of the Board) were nominated by NIOC. Phillips-Iran, AGIP and HIL each nominated one of the remaining four Directors. IMINOCO Statutes, art. 14.1; JSA, art. 6, para. 1. The remaining Board member was the managing director, who was always nominated by AGIP. Every Board resolution required the approval of at least five Board members. IMINOCO Statutes, art. 12. Since at least six Directors had to be represented at each Board meeting (in person or by proxy) in order for there to be a quorum, IMINOCO Statutes, art. 22, the Directors nominated by NIOC could not only block any unwanted action, but their votes were affirmatively required in order for that action to go forward. The record indicates, nonetheless, that the IMINOCO Board of Directors worked almost exclusively by consensus. Although the JSA provided a mechanism for breaking voting ties by reference to a neutral party, that procedure was never used. Likewise, an arbitration procedure for disputes arising from the operation of IMINOCO, JSA, art. 39, was never employed. NIOC thus unquestionably had the power and authority to block any unwanted action or course of business that it opposed.

203. The record also indicates that the NIOC representatives to the IMINOCO Board had substantial opportunities to object to the practices complained of. The Board of Directors met frequently, usually on a monthly basis, to review IMINOCO operations, to decide corporate policies, and to give direction for IMINOCO operations. The Board, for example, adopted the IMINOCO budget and revisions thereto; approved and implemented the specific details of development and production plans and facilities; authorized the issuance of bids and specifications for work to be performed under contract, and the award of contracts after bids were evaluated by IMINOCO's staff; accepted the terms of any settlements involving disputes with contractors; and established IMINOCO's policies and procedures concerning such matters as personnel, procurement and financial administration. No expenditure was made, or work performed, without Board approval. The Claimant has documented a number of cases where the IMINOCO Board took affirmative action to approve a procedure or practice that is now the subject of one of the alleged bad oil field practices. In other instances, the Claimant has demonstrated that no objection was made by the NIOC-appointed members of the IMINOCO Board, even after substantial reports had been prepared on the individual technical questions surrounding the alleged bad oil field practices. The evidence indicates that NIOC representatives participated also in the committees that reported to the Board. The Tribunal holds, therefore, that NIOC had substantial opportunity to object to each of the oil field practices that it now complains of.

204. NIOC suggests that although it may have approved courses of action, it had no opportunity to stop them, once begun, because the Second Party companies exercised their 50 percent voting strength to block NIOC's proposals for change. This suggestion is implausible. Budgets and production plans were, apparently, reviewed annually. This gave NIOC the opportunity each year to object, if it had cared to, and to oppose certain practices and procedures. Moreover, the Respondents have failed to document a single case where action was begun on a project and NIOC later objected, without success, to its continuance.

205. Similarly, the Respondents argue that NIOC would have had neither the power, nor the opportunity, to correct alleged omissions or remedy supposed bad oil field practices. The Tribunal can find, however, no instance where NIOC objected or otherwise demanded action to remedy an apparent omission or bad oil field practice.

206. Finally, the Parties expend substantial resources to document or deny NIOC's technical capability to analyze and assess the issues before the IMINOCO Board. The Respondents claim that NIOC lacked the technical expertise to evaluate those issues and thus could not effectively exercise its rights of review, consultation, and veto. The Claimant, to the contrary, argues that NIOC was fully possessed of excellent technical facilities and a large and highly qualified staff. The Claimant points to a number of cases where NIOC generated substantial and in-depth technical reports in relation to production and development policies now under consideration in this case. In some of these instances, NIOC prepared the reports that became the basis for the decisions now complained of. NIOC was clearly not a "rubber stamp" for proposals by the Second Party. The Tribunal finds that NIOC possessed the knowledge necessary for it to have considered, evaluated and, if need be, vetoed any objectionable proposal considered by IMINOCO.

207. As for whether Phillips was prejudiced by NIOC's failure to object, that seems manifest. Presumably, each of the Parties to the JSA relied on their partners to object in a timely manner to any proposed activity which affected the productivity or profitability of IMINOCO. A failure to object evidenced acquiescence to the continued policies of the joint venture. Without some expression of objection at the time, other parties had no opportunity to consider their validity and, if appropriate, to propose alternative policies. Indeed, because NIOC was the only party which held a blocking share of votes on the Board of Directors, it was especially incumbent upon NIOC to make timely objections to any activities carried out. The prejudice flowing from that failure to object is now evident. The Claimant is in no position to attempt to cure or remedy any of the defects in the production policies or activities that are now objected to. Indeed, the Tribunal notes that the Claimant's ability to execute such a cure would have been substantially limited since it had only a minority interest in the joint venture. Nevertheless, the fact that no opposition was made at the time evidenced NIOC's acquiescence, and indeed complicity, in the practices to which it now objects. Consequently, the Tribunal holds, as a matter of law, that NIOC is now precluded from bringing this Counterclaim.

2. Counterclaim Two

208. In this Counterclaim, the Respondents argue that the Second Party failed to exercise due care and diligence in the preparation and presentation of the commerciality reports for the Rostam Field and the Rakhsh Field.

209. Under the JSA, once the Second Party discovered what it considered to be a commercial field, it was required to submit to NIOC a commerciality report containing extensive technical data and economic analysis. JSA, arts. 15(2), 15(3). NIOC was required to examine the report "promptly and in all good faith with a view to determining whether a Commercial Field" had actually been discovered. Id. art. 15(4). The JSA defined a field as "commercial" if the quantity of petroleum reasonably foreseen as derivable from it would permit a profit of at least 25 percent of the posted price after deducting costs and certain other amounts. Id. art. 15(5).

210. On behalf of the Second Party, AGIP submitted commerciality reports on the Rostam Field on 15 December 1967, and on the Rakhsh Field on 10 October 1969. NIOC subjected the commerciality reports to detailed scrutiny. It prepared its own independent analysis and its own calculations to determine whether the commerciality standard had been met. After some disagreements and much discussion, NIOC declared the Rostam Field commercial on 11 March 1968, and the Rakhsh Field on 14 December 1969. On the basis of these declarations the Parties went forth with the development phase of the project.

211. The production phase began in the Rostam Field on 19 September 1969, and in the Rakhsh Field in February 1971. As the valuation section of the award, supra, has revealed, both fields proved, in fact, to be quite profitable.

212. While the Respondents concede that the fields proved, in fact, to be commercially viable, they argue that was only because of increases in the price of petroleum subsequent to the time the commerciality reports were prepared. The essence of NIOC's Counterclaim for U.S. $748 million is that the commerciality reports were prepared with insufficient care and, as a result, the development of the Rostam and Rakhsh fields began three years prematurely. As a consequence, IMINOCO lost the benefit, for oil produced between 1969 and 1972, of the higher and unforeseen oil revenues generated during the peak years of oil prices, that is between 1972 and 1976, when the price per barrel topped-out over U.S. $30. In other words, while the fields proved commercial and profitable, they would have been much more profitable if developed later.

213. The Tribunal need not consider the merits of this Counterclaim (which obviously involves a problematic request for damages that were unforeseeable), because it is clear that NIOC is precluded from bringing it for reasons similar to those applicable to Counterclaim One. While the Second Party was solely responsible for the preparation of the commerciality reports, NIOC alone had the power to declare the fields commercial, and it is evident that, in doing so, NIOC did not simply rely on the commerciality reports. NIOC prepared its own commerciality studies, questioned and debated the Second Party's findings, and finally reached the conclusion of commerciality. It is obvious that NIOC had substantial knowledge which it used to evaluate those reports and reach its decision.

214. There is thus substantial evidence of NIOC's informed and reasoned agreement with the conclusion of the commerciality reports. That the Claimant, as one of the Second Parties, relied on NIOC's agreement is also implicit in the intent and operation of the Joint Structure Agreement. Until NIOC declared a field commercial, no commercial operations for the production and development of petroleum under the JSA were possible. NIOC's approval of commerciality reports was a critical moment in the operation of the JSA, a time where the essential decision was made to go forward. The Second Parties obviously relied on NIOC's approval of the conclusion of the commerciality reports, because flowing from that approval was the investment in production facilities and the production itself under the JSA. Respondents cannot now claim they relied on inaccurate reports by the Second Party in making the decision on commerciality, the benefits of which they have reaped for years. The Tribunal holds that the Respondents are precluded from bringing this Counterclaim.

VI. INTEREST

215. According to Article IV, paragraph 2, of the Treaty of Amity, the Claimant was entitled to "prompt payment of just compensation" for the taking of its JSA interests. In order to compensate the Claimant for the damages it has suffered due to delayed payment, the Tribunal considers it fair to award interest at the rate of 10 percent from the date of taking, 29 September 1979.

VII. COSTS

216. Each of the Parties shall bear its own costs of arbitrating this Claim.

VIII. AWARD

217. For the foregoing reasons,

THE TRIBUNAL AWARDS AS FOLLOWS:

a) The Respondents, THE ISLAMIC REPUBLIC OF IRAN and THE NATIONAL IRANIAN OIL COMPANY, are obligated to pay the Claimant, PHILLIPS PETROLEUM COMPANY IRAN, Fifty Five Million United States Dollars and No Cents (U.S. $55,000,000) plus simple interest at the rate of 10 percent per annum (365-day year), calculated from 29 September 1979 up to and including the date on which the Escrow Agent instructs the Depositary Bank to effect payment out of the Security Account.

b) This obligation shall be satisfied by payment out of the Security Account established pursuant to paragraph 7 of the Declaration of the Government of the Democratic and Popular Republic of Algeria of 19 January 1981.

c) Counterclaims One and Two are dismissed for the reason that the Respondents are precluded by their conduct from bringing them.

d) The remaining Counterclaims are dismissed for lack of jurisdiction, mootness, or failure of proof.

e) Each of the Parties shall bear its own costs of arbitrating this Claim.

f) This Award is hereby submitted to the President of the Tribunal for notification to the Escrow Agent.