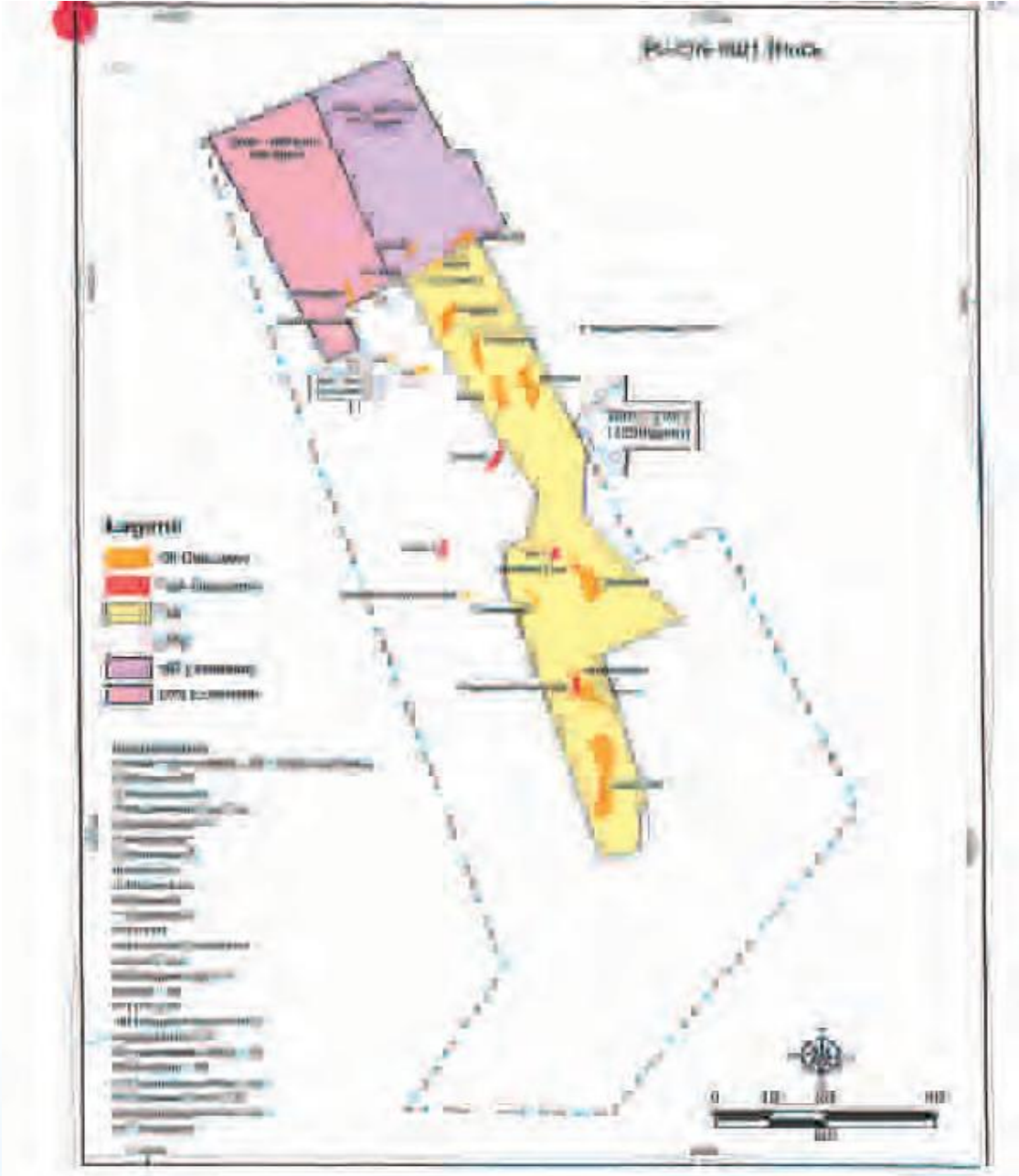


Chapter 5 - Findings relating to RJ-ON-90/1 block

5.1 Overview

This onland block (mainly in Rajasthan, with a small portion in Gujarat) is one of the pre-NELP exploration blocks awarded in Round IV of the pre-NELP exploration rounds in May 1995 to Shell India Production and Development (BV) (SIPD). The PSC was signed between GoI, SIPD and ONGC on 15 May 1995. Subsequently, SIPD's participating interest was transferred in three phases between September 1998 and June 2003 to Cairn Energy India Limited and Cairn Energy Hydrocarbons Limited (collectively termed as "Cairn Energy").



Under the terms of the pre-NELP exploration block PSCs, ONGC was the licensee and was responsible for obtaining the Petroleum Exploration License (PEL) and Mining Lease (ML), and also payment of royalty and PEL/ ML fees. ONGC also had the right, as the designated nominee of Gol, to take a Participating Interest (PI) upto a maximum of 30 per cent in each Development Area (DA) within 90 days of Declaration of Commercial Discovery (DoC). Till date, three DAs have been delineated as given below:

Table 5.1 - Development Areas in RJ-ON-90/1 block

| Development Area (DA) | Date of creation (grant of ML) | Area | Participating Interest | |
|-----------------------|--------------------------------|---------------|------------------------|-------------|
| | | | Cairn Energy | ONGC |
| DA-1 | 20 June 2005 | 1859.00 sq km | 70 per cent | 30 per cent |
| DA-2 | 15 November 2006 | 430.17 sq km | 70 per cent | 30 per cent |
| DA-3 | 6 November 2007 | 822.00 sq km | # | # |

ONGC acquired 30 per cent PI in two development areas, while its decision to acquire 30 per cent in DA-3 was under reference to MoPNG.

There have been 25 hydrocarbon discoveries (21 oil and 4 gas) in the block between July 1999 and November 2008. The status of these discoveries is summarised below:

Table 5.2 - Status of discoveries in RJ-ON-90/1 block

| S.No | Name of the Discovery | Date of discovery | Type | Remarks |
|------|-----------------------------|-------------------|------|--|
| 1 | Guda | 23-Jul-99 | Oil | 14 discoveries indicated at serial nos 1 to 14 were falling in DA-1, Mining Lease (ML) for which was granted on 20 June 2005. However, the FDP for DA-1 covered only 5 discoveries (Mangala including Raageshwari Deep Gas, Aishwariya, Raageshwari and Saraswati). For the other nine discoveries, no separate FDP(s) were yet submitted by the operator. |
| | G-R-F-1 (now part of Guda) | | Oil | |
| 2 | Saraswati | 29-Oct-01 | Oil | |
| 3 | Raageshwari Oil | 25-Dec-02 | Oil | |
| 4 | Raag Deep gas | 25-Dec-02 | Gas | |
| 5 | Kameshwari | 21-Sep-03 | Oil | |
| 6 | Mangala | 20-Jan-04 | Oil | |
| 7 | Aishwariya | 5-Mar-04 | Oil | |
| 8 | Vijaya | 28-Aug-04 | Oil | |
| 9 | Vandana | 7-Aug-04 | Oil | |
| 10 | GSV | 4-Jul-05 | Gas | |
| 11 | N-C-West | 4-Jul-05 | Oil | |
| 12 | Mangala Barmer Hill | 20-Jan-04 | Oil | |
| 13 | Saraswati-Crest-1 | 5-May-07 | Oil | |
| 14 | Raageshwari-East-1z/Tukaram | 24-Nov-08 | Oil | |

| S.No | Name of the Discovery | Date of discovery | Type | Remarks |
|------|-----------------------|-------------------|------|--|
| 15 | Bhagyam | 7-Aug-04 | Oil | 8 discoveries indicated at serial nos 15 to 22 were falling in DA-2, ML for which was granted on 15 November 2006. FDP for Bhagyam discovery was submitted and approved. FDP for Shakti had not been submitted till date. In respect of the remaining 6 discoveries, no separate FDPs were yet submitted by the operator. |
| 16 | Shakti | 18-Apr-04 | Oil | |
| 17 | N-I | 18-May-05 | Oil | |
| 18 | Bhagyam South | 3-Dec-05 | Oil | |
| 19 | N-E | 9-Jan-06 | Oil | |
| 20 | N-P | 6-Apr-06 | Oil | |
| 21 | Shakti-NE-1 | 21-Oct-06 | Oil | |
| 22 | N-I-North | 21-Nov-05 | Oil | |
| 23 | K-W-2 | 21-Nov-06 | Oil | 3 discoveries indicated at serial nos 23 to 25 were falling in DA-3, ML for which was granted on 6 November 2007. FDP in respect of these three discoveries was submitted by the operator in July 2009. MoPNG stated (July 2011) that FDP evaluation of these discoveries had been completed and submitted for MoPNG's decision. |
| 24 | K-W-3 | 13-Dec-06 | Gas | |
| 25 | K-W-6 | 20-Jul-07 | Gas | |

RJ-ON-90/1 is one of the largest onland oil discoveries in India, with 450 million barrels as the current estimate of recoverable resource potential. Oil production from the block started on 29 August 2009. A notable feature of development in this block is the 580 kilometer oil pipeline from Barmer to Salaya (completed) and 80 kilometer Salaya to Bhogat (in progress), with insulation and heating features to maintain the temperature at 65 degrees C, in view of the high "pour point" of the crude oil (48 degrees C).

5.2 Exploration and Appraisal Activities

5.2.1 Delayed relinquishment of area

The PSC stipulated an exploration period of seven years, also permitting an extension of upto three years. This extended exploration period expired on 14 May 2005. At this stage, the operator was required to relinquish the entire area, except for discovery and development areas.

However, out of the original contract area of 11,108 sq.km., a total area of 6678.10 sq.km. (including extended area of 1708.20 sq. km.) was retained, comprising of:

- 1859 sq. km. of development area in DA-1 field;
- appraisal area of 2884 sq. km. (Northern Appraisal Area); and
- an additional 1935.10 sq. km. of area in the southern part , which was not designated as a discovery or development area. This area was irregularly retained till 7 November 2007 (due to non-submission of maps by the operator in time), when it was finally relinquished.

Further, out of the appraisal area of 2884 sq. km. in the Northern Appraisal Area:

- an area of 430.17 sq. km. was converted into Mining Lease (DA-2 development area)³⁴ on 15 November 2006.
- Out of the remaining area of 2453.83 sq. km., the contractor sought retention of the entire area for six months (from 15 November 2006), but was allowed by MoPNG to retain an area of 879.50 sq. km. under PEL from 8 May 2007 till 7 November 2007.
- 822.00 sq. km. of the area of 879.50 sq. km. was converted into Mining Lease (DA-3 development area) on 6 November 2007; however, the balance area of 57.5 sq. km. was deemed relinquished.

In response, MoPNG stated (July 2011) that :

- The delays in relinquishment were procedural and did not have any commercial implications.
- No activity during delays in relinquishment had been reviewed by the MC, which would have an adverse material impact on the contract.
- Further, DGH had conveyed on 14 November 2006 to the operator/ licensee that except for the area of 430.17 sq. km., the remaining block area (2453.83 sq. Km.) in the Northern Appraisal Area stood relinquished from 15 November 2006.

We do not agree. Despite the DGH's communication of 14 November 2006, an area of 1574.33 sq. km. continued to be retained by the contractor till 7 November 2007, when the area was deemed to be relinquished.

5.2.2 Extension of Appraisal Period by six months

- MoPNG extended the stipulated exploration period of 7 years by 36 months in June 2002 and, in June 2005, approved another extension of 18 months (15 May 2005 to 14

³⁴ Interestingly, although the initial term of the PSC is only for 25 years (from May 1995 to May 2020 (subject to extension by mutual agreement pursuant to PSC provisions), the Mining Lease granted by the Government of Rajasthan for DA-2 (430.17 sq.km) is for 20 years from November 2006 to November 2026 (which is beyond the initial term of the PSC). The PSC term is, however, subject to extension by mutual agreement as per PSC provisions.

November 2006) to complete appraisal of the Bhagyam and Shakti discoveries in the Northern Appraisal Area (NAA).

- In December 2006, the operator requested a further extension of six months for completing appraisal work in the NAA³⁵ to cover up the work which was *inter alia* hampered for more than three months in view of severe floods in Rajasthan. DGH did not recommend further extension, since the appraisal work (for which the earlier 18 month extension was sought and agreed to) was already over. However, in May 2007, MoPNG granted a further extension of 6 months effective from 8 May 2007³⁶. Interestingly, the period of 6 months between 15 November 2006 and 8 May 2007 was not formally covered by extension.

In response, MoPNG stated (July 2011) that the Government granted (8 May 2007) six months extension on the basis of Cairn’s track record with regard to survey, exploration and discovery, besides the fact that Cairn was quite confident of making more discoveries in the Northern Appraisal Area. However, the fact remains that this extension was beyond the PSC provisions.

5.2.3 Irregular extension of exploration activities through fresh discoveries during appraisal and development phases

Article 1 of the PSC for RJ-ON-90/1 block defines Exploration operations, Exploration well, Discovery, Discovery Area, Appraisal well and Development area as follows:

Table 5.3 – Definition of key terms in RJ-ON-90/1 PSC

| Term | Definition |
|------------------------|--|
| Exploration operations | Operations conducted in the contract area in searching for petroleum and in the course of a programme to appraise any discovery and shall include but not limited to all work necessarily connected therewith that is conducted in connection with petroleum exploration. |
| Exploration well | A well drilled for the purpose of searching for undiscovered petroleum accumulations on any geological entity |
| Discovery | The finding of a deposit of petroleum not previously known to have existed , which can be recovered at the surface in a flow measurable by conventional petroleum industry testing methods. |
| Discovery Area | An area within the contract area in which there has been a discovery and over which the contractor is of the opinion that the deposit of |

³⁵ The request was for an area of 2453.83 sq.km (after excluding an area of 430.17 sq.km under Mining Lease from the original area under NAA of 2884 sq. km).

³⁶ Covering an area of 879.50 sq.km.

| Term | Definition |
|-------------------------|---|
| | petroleum discovered could extend, based upon the results of exploration operations. |
| Appraisal well | A well drilled as part of a work programme carried out following a discovery of petroleum in the contract area for the purpose of delineating the petroleum reservoirs to which the discovery relates in terms of thickness and lateral extent and determining the characteristics thereof and the quantity of recoverable petroleum therein. |
| Development Area | An area within the contract area containing one or more commercial discoveries whether or not within a single geological structure (to include the maximum area of potential petroleum deposits in the contract area in a simple geometric shape) which the contractor intends to develop in accordance with a Development Plan which has been approved in accordance with Article 9 or 21.4. |

In our opinion, exploration and development are distinct and successive operations. Exploration is clearly the **“search for petroleum”**, discovery is the **“finding of petroleum”** and development is the **“development of one or more commercial discoveries”**. Further, although the appraisal period falls within the exploration period, appraisal is **for delineating the petroleum reservoir to which the (existing) discovery relates** and is, thus, distinct from exploration, which is the **search for petroleum**.

However, we found that the operator carried out exploration activities and made new discoveries within the discovery/ development areas, as summarised below:

Table 5.4- Discoveries made after exploration period

| S.No. | Name of the Discovery | Date of Discovery | Development Area (DA) | Remarks |
|-------|-----------------------|-------------------|-----------------------|--|
| 1 | N-I | 18.05.2005 | DA-2 | The exploration period ended on 14 May 2005. Eight discoveries indicated at serial nos 1 to 8 were made after the exploration period ended, i.e. during the first appraisal period from 15 May 2005 to 14 November 2006. |
| 2 | GSV | 04.07.2005 | DA-1 | |
| 3 | N-C-West | 04.07.2005 | DA-1 | |
| 4 | N-I-North | 21.11.2005 | DA-2 | |
| 5 | Bhagyam South | 03.12.2005 | DA-2 | |
| 6 | N-E | 09.01.2006 | DA-2 | |
| 7 | N-P | 06.04.2006 | DA-2 | |
| 8 | Shakti-NE-1 | 21.10.2006 | DA-2 | |

| S.No. | Name of the Discovery | Date of Discovery | Development Area (DA) | Remarks |
|-------|---------------------------------|-------------------|-----------------------|--|
| 9 | K-W-2 | 21.11.2006 | DA-3 | Three discoveries indicated at serial nos 9 to 11 were made during 15 November 2006 to 7 May 2007, i.e. the period between the first appraisal period (15 May 2005 to 14 November 2006) and the second appraisal period (8 May 2007 to 7 November 2007). |
| 10 | K-W-3 | 13.12.2006 | DA-3 | |
| 11 | Saraswati-Crest-1 | 05.05.2007 | DA-2 | |
| 12 | K-W-6 | 20.07.2007 | DA-3 | This discovery was made during the second appraisal period from 8 May 2007 to 7 November 2007. |
| 13 | Raageshwari-East-1z/ Tukaram | 24.11.2008 | DA-2 | This discovery was made during the development phase. |

Consequently, in our opinion, the declaration of fresh discoveries during the appraisal/development phases within delineated discovery/development areas amounted to irregular extension of exploration activities, which is not in consonance with the terms of the PSC. This also indicates that the discovery/development areas were not strictly delineated, and included excess area.

In response, MoPNG stated (July 2011) that there could be exceptional cases when during delineation of the pool boundary of an existing discovery through appraisal, a new pool (discovery) could be discovered which was not in hydrodynamic continuity with the existing pool.

We do not agree with the views of MoPNG. While there could be, as pointed out by MoPNG, exceptional cases of a discovery being found during delineation of an existing “pool/boundaries” through appraisal, the fact that eight discoveries were made during the first appraisal period, three discoveries made between two appraisal periods, and one each during the second appraisal period and development phase, clearly indicates that these were not “exceptional cases”. This confirms the lack of strict delineation of development/discovery areas and irregular continuation of exploration activities.

During the exit conference (July 2011), the operator indicated the following aspects:

- The Development Areas hold further exploration potential; the current estimate of the resource potential was 450 mmbbls recoverable;

- Continuing exploration in the block was consistent with PSC and the Oil Fields (Regulation and Development) Act, 1948 as well as global practices and precedents in India, also citing global examples of continuing exploration in development areas³⁷
- Continuing exploration was required to realize the full potential of the block to produce over 300000 bopd.

With regard to the operator's views (submitted at the exit conference) regarding continuing exploration in development areas, Section 3 (d) of the Oil Fields (Regulation & Development) Act, 1948, defines mining lease as *"a lease granted for the purpose of searching for, winning, working, getting, making merchantable, carrying away or disposing of mineral oils or for purposes connected therewith, and includes an exploring or a prospecting license"*.

However, the PSC itself is covered by the Petroleum and Natural Gas Rules, 1959, which provide for an agreement between the Government and the licensee with respect to additional terms and conditions in regard to the licence or lease³⁸. We believe that the provisions of the Oil Fields (Regulation and Development) Act, 1948 and the PNG Rules, 1959 cannot be read in isolation, and must be construed within the letter and spirit of the PSC which provides for the conduct of different petroleum operations (exploration → appraisal → development → production) in an orderly sequence.

While we take note of the operator's view that continuing exploration would realize the full potential of the block, we believe that such extension of exploration activities goes beyond the provisions of the PSC. Approval by the GoI of such extensions should be on clear financial quid pro quo - beyond the existing PSC provisions - for the benefit of GoI or its parties.

5.3 Discovery, Commercial Discovery and Development

5.3.1 Discovery and Potential Commerciality Report

The PSC provides that when a discovery is made within the contract area, the Contractor should:

- Forthwith inform the Licensee (ONGC) and Government of the discovery and furnish particulars in writing within 30 days of the discovery;
- "Promptly" run tests to determine whether the discovery is of potential commercial interest; and

³⁷ Indonesia (Offshore SE Sumatra), Nigeria (Block OML-61), Yemen (Block 18 (Marib Al Jawf) and Block 14 (Masila Dev)), Malaysia (PM-08 (EXXON) and Block K), Syria (Deir ez Zor/ Zenoubia West), and India (RJ-ON-90/1, Ravva, South Bassein (Mumbai Offshore), and Lakwa (Assam)).

³⁸ Rule 5 of PNG Rules, 1959

- Within 60 days of completion of the tests, submit a report to the Management Committee with a notification of whether, in the contractor's opinion, the discovery is of potential commercial interest and merits appraisal;

We found the following deficiencies in compliance with the PSC provisions:

- Out of 25 discoveries, intimation in respect of 10 discoveries was not given within the stipulated 30 days of discovery, with delays ranging between 11 and 791 days.
- Reports of potential commerciality were not submitted within the stipulated period of 60 days after completion of tests in respect of 13 out of 25 discoveries, with delays ranging between 2 to 329 days.

Further, we found that out of 25 discoveries:

- All 25 discoveries had been tested to determine potential commercial interest; however, no appraisal wells were struck in 7 discoveries. Despite lack of appraisal wells, advice of commerciality was submitted to the MC in all 7 cases (evidently based directly on test of potential commercial interests without an appraisal programme). However, DoC (Declaration of Commercial Discovery) was not declared in six of these cases. In response, the operator stated that since these discoveries fell within the existing Development Areas (DA-1 and DA-2), no separate DoC was required.
- In 22 cases, advice of DoC was given to the MC, but only 10 DoCs were formally declared. Delays in DoC approval ranged from 67 to 323 days.
- In 10 cases, advice of DoC was given to the MC, even before drilling of the last appraisal well, and in 4 of these 10 cases, the DoC was actually approved before the drilling of the last appraisal well. Consequently, the DoC approval is likely to have been based on incomplete information.
- Field Development Plans in respect of only nine discoveries were submitted (five³⁹ in DA-1, one in DA-2, and three in DA-3), of which six were approved; FDPs for three discoveries in DA-3 are yet to be approved by MC. Of the remaining 16 FDP for one discovery is awaiting the Operating Committee's approval, while the remaining 15 discoveries have been clubbed with FDPs for DA-1 (nine) and DA-2 (six). These 15 discoveries (which were discovered between July 1999 and November 2008) were still awaiting development. Details are given in **Annexure 5.1**.

In response, MoPNG stated (July 2011) that:

- As regards delay in intimation of 10 discoveries, these discoveries had not been reviewed by MC; hence the question of intimation did not arise.
- As regards the 15 discoveries (clubbed with DA-1 and DA-2) awaiting development, the timelines would not apply to these discoveries, as these were already in the

³⁹ Mangala, Aishwariya, Raageshwari, Saraswati, and Raageshwari Deep Gas

development area for which the ML had been granted, and efforts to develop MC reviewed discoveries were being made.

While we note that all discoveries cannot be developed individually (as they may not be commercially viable on a stand-alone basis), we do not agree with MoPNG's views regarding non-applicability of timelines for discoveries in the appraisal / development phases in the development area for the reasons indicated in para no 5.2.3 above.

5.3.2 Declaration of Commercial Discovery

Article 9.5 of the PSC provides that the MC shall, without any undue delay, and in any event within forty five days of the date of the notice under article 9.4, consider the proposal of the contractor and request any other additional information it may reasonably require so as to reach a decision on whether or not to declare the Discovery as Commercial Discovery. Such decision shall be made within the later of (a) ninety days of the notice under article 9.4 or (b) forty five days of receipt of such other information as may be required under article 9.5.

However, we found that there were delays in approval of DoC by the Management Committee, as given below:

Table 5.5 - Delay in Declaration of Commercial Discovery

| S.No. | Name of the Discovery | Date of Discovery | Date of submission of DoC for review by MC | Date of DoC | Delay in DoC (days) |
|-------|-----------------------|-------------------|--|-------------|---------------------|
| 1 | Saraswati | 29.10.2001 | 11.05.2004 | 15.10.2004 | 67 |
| 2 | Raageshwari | 25.12.2002 | 11.05.2004 | 15.10.2004 | 67 |
| 3 | Mangala | 20.01.2004 | 11.05.2004 | 15.10.2004 | 67 |
| 4 | Aishwariya | 05.03.2004 | 11.05.2004 | 15.10.2004 | 67 |
| 5 | Raag Deep gas | 25.12.2002 | 11.05.2004 | 15.10.2004 | 67 |
| 6 | Bhagyam | 07.08.2004 | 08.02.2006 | 14.11.2006 | 189 |
| 7 | Shakti | 18.04.2004 | 08.02.2006 | 14.11.2006 | 189 |
| 8 | K-W-2 | 21.11.2006 | 06.11.2007 | 24.12.2008 | 323 |
| 9 | K-W-3 | 13.12.2006 | 06.11.2007 | 24.12.2008 | 323 |
| 10 | K-W-6 | 20.07.2007 | 06.11.2007 | 24.12.2008 | 323 |

In response, MoPNG stated (July 2011) that in many cases, the delay was due to non-receipt of complete information; therefore, approval of DoC was done after the later of 90 days/ 45days from the receipt of required information.

We do not agree. The additional information in respect of discoveries was sought after expiry of the stipulated 90 days time limit. No details were provided in respect of two discoveries. Further, delays pointed out in the para are after considering the maximum prescribed timeline of 90 days.

5.3.3 Field Development Plans

5.3.3.1 Delays in submission and approval

Field Development Plans in terms of three development areas (DA-1, DA-2, and DA-3) were submitted and approved (DA-1 and DA-2) by the Management Committee. We found that there were delays in submission and approval of FDPs:

Table 5.6 - Delays in submission and approvals of FDPs

| FDP | Delay in submission of FDP | Delay in approval of FDP by MC |
|---|-------------------------------|--------------------------------|
| Mangala, Aishwariya, Rageshwari and Saraswati (MARS) in the DA-1 area | 241 days | 58 days |
| Bhagyam (DA-2 area) | No delay | 69 days |
| Shakti Field (part of DA-2 area) | OC approved FDP not submitted | --- |
| Kaameshwari (DA-3) | July 2009 | Not yet approved |

In response, MoPNG stated (July 2011) that in many cases delay was due to non-receipt of complete information; therefore, approval of FDP was done after later of 90 days/45 days from receipt of required information. Regarding approval of Kaameshwari (DA-3) FDP, it stated that evaluation had been completed for decision by MoPNG.

5.3.3.2 Revised FDP for Mangala (including Raageshwari Deep Gas)

The original FDP of Mangala (including Raageshwari Deep Gas) was approved by the MC in May 2006 at a cost of US\$ 1241.61 million. A revised FDP was submitted to the MC on 20 March 2009, due to change in delivery point from Barmer to Salaya and later to Bhogat, which necessitated laying of pipeline. On 30 June 2009, the MC approved the revised FDP at a cost of US\$ 2367.31 million, plus US\$ 941.05 million as the cost of the pipeline, plus US\$ 35.61 million as cost of Mangala EOR; i.e. a total cost of US\$ 3343.97 million.

The increase in revised FDP cost was attributed to (i) flood during 2006 in Rajasthan; (ii) delayed approval for pipeline and terminals; (iii) increase of Upstream Capital Cost index by 98 percent during 2005 to 2007; (iv) increase in Rig Day Rates and other tangibles as per current contracts; (v) delay in project schedule; (vi) change from gas to steam for power generation; and (vii) increase in excavation, foundations, construction costs due to plant relocation, increase in prices of steel and cement, additional road works, construction camps, increase in equipment and bulks.

Our comparison of individual cost elements for the original and revised FDPs (as approved) revealed that the main increases in cost were on account of surface facilities (US\$ 513.40 to US\$1038.03 million), well construction (US\$ 433.08 to US\$ 698.80 million) and project

management (US\$ 67.25 to US\$167.52 million); details are indicated in **Annexure 5.2**. This is in addition to the cost of the pipeline (US\$ 941.05 million).

In response, MoPNG stated (July 2011) that during the period 2005 to 2007, the price level for E&P services increased substantially and additional scope of work was included to the Mangala surface facilities in the revised FDP. Further, there were changes in the production facilities, in view of increased production rates from 100000 bopd to 125000 bopd.

Most of the expenditure under the revised FDP has been/ would be incurred from 2008-09 and thereafter; this would be covered in future audits.

5.4 Procurement Issues

The operator awarded contracts for procurement of goods and services to indigenous and foreign vendors. During the course of audit, 41 contracts in respect of which payment valuing more than one million US\$ was made during the years 2006-07 and 2007-08 were reviewed. It was observed that:

- in three cases, payment of US\$ 89.45 million was made against contracts awarded on nomination or on single financial bid basis;
- in one case, payment of US\$ 1.94 million was made against the contract awarded without assessing reasonability of rates; and
- in two cases, payment of US\$ 20.63 million was made against contracts extended beyond contractual provisions, without availing economies of scale.

Details are given in **Annexure 5.3**.

In response, MoPNG stated (July 2011) that any amount assessed by audit in the final report that should not be considered would be considered for appropriate action for deletion from contract cost. In this connection, we recommend that MoPNG validate the award of contracts falling under the categories listed above, so as to draw assurance that Government's interest was protected.

5.5 Cost Recovery

Production of oil from the RJ-ON-90/1 block commenced only in August 2009. Hence, cost recovery had not commenced in 2006-07 and 2007-08 (the two years for which records of the operator were scrutinised). As of March 2008, cumulative recoverable cost amounted to US\$ 1088.32 million, of which additions of US\$ 215.91 million and US\$ 401.56 million took place during 2006 (calendar year) and 2007-08 (15 months). Our review was, thus, confined to examination of cost-recoverable items incurred during 2006-08.

In our opinion, the following items of cost are not eligible for cost recovery:

Table 5.7-Items not eligible for cost recovery

| Item | Amount US\$ | Details |
|---|----------------|---|
| Exploration costs incurred in development area DA-1 | 119.78 million | Expenditure of US\$ 105.18 million on appraisal wells and US\$ 14.60 million towards seismic surveys and activities in DA-1 (which were not approved by MC) are not eligible for cost recovery. |
| Additional work beyond MWP not approved by MC | 77.95 million | Additional work costing US\$ 46.41 million on 16 drilled wells and US\$ 31.54 million on seismic activities undertaken beyond MWP had not been approved by MC (August 2010). |
| Seismic survey on area already relinquished | 1.59 million | Expenditure of US\$ 1.59 million up to 14 May 2005 was incurred on seismic survey on area which had already been relinquished; this cost had not been approved by the MC. |
| Expenditure on discovery well during appraisal period | 2.22 million | Expenditure of US\$ 2.22 million was incurred on a discovery well KW-I (6) drilled, without MC approval, in July 2007 during the extended appraisal period. Despite DGH's objection, MC regularised it, so that it could be developed along with two other discoveries (KW-2 and KW-3). In our opinion, the MC's regularisation is not in line with the PSC provisions. |

We also found excess expenditure of US\$ 27.63 million on pre-development and development activities over the approved budget for 2007-08 of US\$ 160.56 million, which had not been ratified by the MC.

In response, MoPNG stated (July 2011) that:

- expenditure in respect of work program not approved by MC and adversely commented upon by audit would be disallowed; and
- the audit view on disallowing exploration expenditure incurred after exploration phase was in line with the stand of DGH on the issue.

We take note of the ministry's assurance on this issue.