



**OIL INDIA LIMITED**  
(A Govt. of India Enterprise)  
P.O. DULIAJAN, DIST. DIBRUGARH,  
ASSAM, INDIA, PIN-786 602

**CONTRACTS DEPARTMENT**  
TEL: (91) 374-2800548  
FAX: (91) 374-2803549  
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Website: [www.oilindia.in](http://www.oilindia.in)

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**FORWARDING LETTER**

**TENDER NO. OIL/CCO/GEOL/GLOBAL/202/2007**

Dear Sirs,

**Sub : Engagement of a consulting firm having experience in Execution & Completion of UBD Wells and to carry out study on “Reservoir Screening of probable candidate five reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells for Upper Assam Fields” of Oil India Limited**

Dear Sirs,

OIL INDIA LIMITED (OIL), a Government of India Enterprise, is engaged in exploration, production and transportation of crude oil & natural gas with its Headquarters at Duliajan, Assam. Duliajan is well connected by Air with the nearest airport being at Dibrugarh, 45 km. away.

2.0 In connection with its operations, OIL invites International Competitive Bids (ICB) Bids from competent, reputed and experienced firms for providing “**Engagement of a consulting firm having experience in Execution & Completion of UBD Wells and to carry out study on “Reservoir Screening of probable candidate five reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells for Upper Assam Fields” of Oil India Limited**”. One complete set of bid document for hiring of above services is being forwarded herewith. You are requested to send your most competitive bid well on or before the scheduled bid closing date and time. For your ready reference, few salient points (covered in detail in this Bid document) are highlighted below:

- (i) **TENDER NO.** : OIL/CCO/GEOL/GLOBAL/202/2007
- (ii) **TYPE OF BID** : Single stage Two-Bid system
- (iii) **BID CLOSING DATE & TIME** : **22-November-2007(12.45 hrs IST)**

- (iv) **TECHNICAL BID OPENING DATE & TIME** : **22-November-2007(13.00 hrs (IST))**
- (v) **COMMERCIAL BID OPENING DATE & TIME**: Will be intimated to the eligible bidder(s) nearer the time.
- (vi) **BIDS TO BE ADDRESSED TO** : **Head (Contracts)**  
OIL INDIA LIMITED,  
DULIAJAN, PIN - 786 602,  
ASSAM, INDIA.
- (vii) **BID SUBMISSION/OPENING PLACE**: Office of **Head (Contracts)**  
OIL INDIA LIMITED  
DULIAJAN – 786602,  
ASSAM, INDIA.
- (viii) **BID SECURITY AMOUNT** : **US\$ 3,000.00 or Rs. 1,25,000.00**
- (ix) **AMOUNT OF PERFORMANCE GUARANTEE** : 10% of the estimated contract value
- (xi) **MOBILISATION TIME** : Within 15 days from date of award of contract.
- (xii) **QUANTUM OF LIQUIDATED DAMAGE FOR DEFAULT IN TIMELY MOBILISATION** : 1/2% of the total contract value per week or part thereof subject to maximum of 7.1/2%.
- (xiii) **CONTRACT PERIOD** : 75 Days from date of award of contract.

3.0 OIL now looks forward to your active participation in the tender.

Thanking you,

Yours faithfully,  
OIL INDIA LIMITED

**(R. Nath)**  
**Head (Contracts)(i/c)**  
**For Executive Director(SS)**

## **PART - 1**

### **INSTRUCTIONS TO BIDDERS**

1.0 Bidder shall bear all costs associated with the preparation and submission of bid. Oil India Limited, hereinafter referred to as Company, will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

#### **A. BIDDING DOCUMENTS**

2.0 The services required, bidding procedures and contract terms are prescribed in the Bidding Documents. This bidding document includes the following:

- (a) A **Forwarding Letter** highlighting the following points
  - (i) Company's Tender No. OIL/CCO/GEOL/GLOBAL/202/2007
  - (ii) Bid closing date and time
  - (iii) Bid opening date, time and place
  - (iv) Bid submission / opening place
  - (v) The amount of Bid Security
  - (vi) The amount of performance guarantee
  - (v) Quantum of liquidated damages for default in timely mobilisation
- (b) Instructions to Bidders (Part - 1)
- (c) Bid Rejection Criteria (BRC)/Bid Evaluation Criteria (BEC) (Part - 2)
- (d) General Terms & Conditions of Contract (Part – 3, Section- I)
- (e) Terms of Reference/Technical specifications (Part – 3, Section II)
- (f) Schedule of Rates and Payment (Part – 3, Section III)
- (g) Statement of Compliance (Proforma I)
- (h) Bid Form (Proforma IIA)
- (i) Bid Security Form (Proforma IIB)
- (j) Performance Security Form (Proforma IIC)
- (k) Agreement Form (Proforma IID)
- (l) Proforma Letter of Authority(Proforma IIE)

2.1 The bidder is expected to examine all instructions, forms, terms and specifications in the Bid Documents. Failure to furnish all information required in the Bid Documents or submission of a bid not substantially responsive to the Bid Documents in every respect will be at the Bidder's risk & responsibility and may result in the rejection of their bid.

#### **3.0 AMENDMENT OF BIDDING DOCUMENTS**

3.1 At any time prior to the deadline for submission of bids, the Company may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the Bid Documents by the issuance of an Addendum.

3.2 The Addendum will be sent in writing or by Fax/E-mail/Courier/Post to all prospective Bidders to whom Company had issued the bid documents. The Company may, at its discretion, extend the deadline for bid submission, if the

Bidders are expected to require additional time in which to take the Addendum into account in preparation of their bid or for any other reason.

**B. PREPARATION OF BIDS**

4.0 **LANGUAGE OF BIDS:** The bid as well as all correspondence and documents relating to the bid exchanged between the Bidder and the Company shall be in English language, except that any printed literature may be in another language provided it is accompanied by an English version which shall govern for the purpose of bid interpretation.

5.0 **DOCUMENTS COMPRISING THE BID:** The bid submitted by the Bidder shall comprise of the following components:

**A. TECHNICAL BID**

- (i) Complete technical details of the services
- (ii) Documentary evidence established in accordance with Para 9.0.
- (iii) Bid Security furnished in accordance with Para 10.0.
- (iv) Statement of compliance as per **Proforma-I.**
- (iv) A copy of the Commercial Bid **without indicating prices.**

**B. COMMERCIAL/PRICE BID**

- (i) Bid Form as per **Proforma - IIA.**
- (ii) PRICE BID as per format given in **Section - III.**

6.0 **BID FORM:** The bidder shall complete the Bid Form (Proforma - IIA) and the appropriate Price Schedule furnished in the Bid Document.

7.0 **BID PRICE**

7.1 Unit prices must be quoted both in words and in figures.

7.2 Price quoted by the Successful Bidder must remain firm during its performance of the Contract and is not subject to variation on any account.

7.3 All duties and taxes including corporate income taxes and other levies payable by the Contractor under the Contract for which this Bid Document is being issued, shall be included in the rates, prices and total Bid Price submitted by the bidder, and the evaluation and comparison of bids shall be made accordingly. For example, personal taxes and/or any corporate taxes arising out of the profits on the contract as per rules of the country shall be borne by the bidder.

8.0 **CURRENCIES OF BID AND PAYMENT:** A bidder expecting to incur its expenditures in the performance of the Contract in more than one currency, and wishing to be paid accordingly, shall so indicate in the bid. In such a case, the bid shall be expressed in different currencies and the respective amounts in each currency shall together make up the total price.

9.0 **DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY:**

9.1 These are listed in **Part - 2.**

**9.2 Bidder shall furnish a written undertaking in their bid expressing commitment to replace any of their personnel(s) at any point of time during the contractual period if, in the opinion of the Company, found not suitable for any reason.**

**10.0 BID SECURITY: Not Applicable**

10.1 Pursuant to Para 5.0 the Bidder shall furnish as part of its Technical bid, Bid Security in the amount as specified in the "Forwarding Letter".

10.2 The Bid Security is required to protect the Company against the risk of Bidder's conduct, which would warrant the security's forfeiture, pursuant to sub-Para 10.7.

10.3 The Bid Security shall be denominated in the currency of the bid or another freely convertible currency, and shall be in one of the following form:

- (a) A bank guarantee or irrevocable Letter of Credit issued by a scheduled Indian bank or a foreign bank located in India in the form provided in the Bidding Documents or another form acceptable to the Company and valid for 30 days beyond the validity of the bids.
- (b) A cashier's cheque or demand draft drawn on 'Oil India Limited' and payable at Duliajan, Assam.

10.4 Any bid not secured in accordance with sub-para 10.1 and / or 10.3 shall be rejected by the Company as non-responsive.

10.5 Unsuccessful Bidder's Bid Security will be discharged and/or returned within 30 days of expiry of the period of bid validity.

10.6 Successful Bidder's Bid Security will be discharged upon the Bidder's signing of the contract and furnishing the performance security.

10.7 The Bid Security may be forfeited:

- (a) If any Bidder withdraws or modifies their bid during the period of bid validity (including any subsequent extension) specified by the Bidder on the Bid Form,
- OR**
- (b) If a successful Bidder fails:
    - i) to sign the contract within reasonable time and within the period of bid validity, and/or
    - ii) to furnish Performance Security.

**11.0 PERIOD OF VALIDITY OF BIDS**

11.1 Bids shall remain valid for 120 days after the date of bid opening prescribed by the Company.

11.2 In exceptional circumstances, the Company may solicit the Bidder's consent to an extension of the period of validity. The request and the response thereto

shall be made in writing (or by Fax or E-mail). The bid Security provided under Para 10.0 shall also be suitably extended. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder may refuse the request. However, a Bidder granting the request will neither be required nor permitted to modify their bid.

#### **12.0 FORMAT AND SIGNING OF BID**

12.1 The Bidder shall prepare four copies of the bid clearly marking original "ORIGINAL BID" and rest "COPY OF BID". In the event of any discrepancy between them, the original shall govern.

12.2 The original and all copies of the bid shall be typed or written in indelible inks and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. The person or persons signing the bid shall initial all pages of the bid, except for unamended printed literature.

12.3 The bid should contain no interlineations, white fluid erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such correction shall be initialed by the person(s) signing the bid.

#### **C. SUBMISSION OF BIDS**

##### **13.0 SEALING AND MARKING OF BIDS:**

13.1 The tender is being processed according to a single stage - Two bid procedure. Offers should be submitted in two parts viz. Technical bid and Commercial bid each in quadruplicate (one Original and 3 copies).

13.2 The Bidder shall seal the original and each copy of the bid duly marking as "ORIGINAL" and "COPY".

13.3 The cover containing the Technical Bid (Original + 3 copies) should be in one sealed cover bearing the following on the right hand top corner.

- (i) Envelope No.1 Technical bid
- (ii) Tender No. \_\_\_\_\_.
- (iii) Bid closing date \_\_\_\_\_.
- (iv) Bidder's name \_\_\_\_\_.

13.4 The cover containing the Commercial Bid (Original + 3 copies) should be in a separate sealed cover bearing the following on the right hand top corner.

- (i) Envelope No.2 Commercial bid
- (ii) Tender No. \_\_\_\_\_.
- (iii) Bid closing date \_\_\_\_\_.
- (iv) Bidder's name \_\_\_\_\_.

13.5 The above mentioned two separate covers containing Technical and the Commercial bids should then be put together in another envelope bearing the following details on the top and the envelope should be addressed to the person(s) as mentioned in the "Forwarding Letter".

- (i) Tender No. \_\_\_\_\_.
- (ii) Bid closing date \_\_\_\_\_.
- (iii) Bidder's name \_\_\_\_\_.

13.6 The offer should contain complete specifications, details of services and equipment/ accessories offered together with other relevant literature/catalogues of the equipment offered. The Bid Security mentioned in Para 10.0 should be enclosed with the Technical Bid. **The price bid should not be put in the envelope containing the Technical Bid.**

13.7 All the conditions of the contract to be made with the successful bidder are given in various Sections of this document. Bidders are requested to state their compliance/ non-compliance to each clause as per **Proforma - I**. This should be enclosed with the technical bid.

13.8 Timely delivery of the bids is the responsibility of the Bidder. Bidders should send their bids as far as possible by Registered Post or by Courier Services. Company shall not be responsible for any postal delay/ transit loss.

13.9 Cable/ Fax / E-mail / Telephonic offers will not be accepted.

14.0 **INDIAN AGENTS:** Foreign Bidders are requested to clearly indicate in their quotation whether they have an agent in India. If so, the bidders should furnish the name and address of their agents and state clearly whether these agents are authorised to receive any commission. The rate of the commission included in the quoted rates of bidder should be indicated which would be payable in non-convertible Indian currency according to Import Trade Regulation of India. Unless otherwise specified, it will be assumed that an agency commission is not involved in the particular bid. Further, Bidders are requested to quote directly and not through their agents in India.

15.0 **DEADLINE FOR SUBMISSION OF BIDS:** Bids must be received by the Company at the address specified in the Forwarding Letter not later than 12-45 Hrs. (Indian Standard Time) on the bid closing date mentioned in the letter.

16.0 **LATE BIDS** Any Bid received by the Company after the deadline for submission of bids prescribed by the Company shall be rejected.

17.0 **MODIFICATION AND WITHDRAWAL OF BIDS**

17.1 The Bidder, after submission of bid, may modify or withdraw its bid by written notice prior to bid closing.

17.2 The Bidder's modification or withdrawal notice shall be prepared sealed, marked and despatched in accordance with the provisions of Para 13.0. A withdrawal notice may also be sent by fax but followed by a signed confirmation copy, postmarked not later than the deadline for submission of bids.

17.3 No bid can be modified subsequent to the deadline for submission of bids.

17.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiry of the period of bid validity specified by the Bidder on the Bid Form.

## **18.0 BID OPENING AND EVALUATION**

18.1 Company will open the Bids, including submission(s) made pursuant to Para 17.0, in the presence of Bidder's representatives who choose to attend at the date, time and place mentioned in the Forwarding Letter. However, the Bidder's representative must produce an authorised letter from the bidder at the time of opening of tenders. Unless this Letter is presented, the representative will not be allowed to attend the opening of tenders. The Bidders' representatives who are allowed to attend the bid opening shall sign in a register evidencing their attendance. Only one representative against each bid will be allowed to attend.

18.2 Bid(s) (if any) for which an acceptable notice(s) of withdrawal has/have been received pursuant to Para 17.0 shall not be opened. On opening the remaining bids Company will examine them to determine whether the same are complete, documents have been properly signed and the bids are generally in order.

18.3 At bid opening, Company will announce the Bidders' names, written notifications of bid modifications or withdrawal, if any, and such other details as the Company may consider appropriate.

18.4 Company shall prepare, for its own records, minutes of bid opening including the information disclosed to those present in accordance with the sub-Para 18.3.

18.5 To facilitate examination, evaluation and comparison of bids the Company may, at its discretion, ask the Bidder for clarifications of its bid. The request for clarification and the response shall be in writing and no change in the price or substance of the bid shall be sought, offered or permitted.

18.6 Prior to detailed evaluation, the Company will determine the substantial responsiveness of each bid to the Bidding Documents. For purpose of these paragraphs, a substantially responsive bid is one which conforms to all the terms and conditions of the Bidding Document without material deviations. The Company's determination of bid's responsiveness is to be based on the contents of the Bid itself without recourse to extrinsic evidence.

18.7 A Bid determined as not substantially responsive will be rejected by the Company and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

18.8 The Company may waive minor informality or nonconformity or irregularity on a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

## **19.0 OPENING OF COMMERCIAL/PRICE BIDS**

19.1 Company will open the Commercial Bids of the technically qualified Bidders on a specific date in presence of interested qualified bidders. Technically qualified Bidders will be intimated about the bid opening date in advance.

19.2 The Company will examine the Price quoted by Bidders to determine whether they are complete, any computational errors have been made, the documents have been properly signed, and the bids are generally in order.

19.3 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price (that is obtained by multiplying the unit price and quantity) the unit price shall prevail and the total price shall be corrected accordingly. If any Bidder does not accept the correction of the errors, their bid will be rejected. If there is a discrepancy between words, and figures, the amount in words will prevail.

20.0 **CONVERSION TO SINGLE CURRENCY:** While evaluating the bids, the closing rate of exchange declared by State Bank of India on the day prior to price bid opening will be taken into account for conversion of foreign currency into Indian Rupees. Where the time lag between the opening of the price bids and final decision exceeds three months, the rate of exchange declared by State Bank of India on the date prior to the date of final decision will be adopted for conversion.

21.0 **EVALUATION AND COMPARISON OF BIDS**

21.1 Total commercial value of the bids (inclusive of applicable taxes and duties) as worked out from the Schedule of Rates will be used for final evaluation of competitiveness of individual bidders.

21.2 In case Bidder takes exception to any clause of bidding document, then the Company has the discretion to load or reject the offer on account of such exception, if the Bidder does not withdraw/modify the deviation when/ as advised by Company. The loading so done by the company will be final and binding on the Bidders.

22.0 **LOADING OF FOREIGN EXCHANGE:**

22.1 There would be no loading of foreign exchange for deciding the inter-ranking of domestic bidders.

22.2 **Repatriation of rupee cost:** In respect of foreign parties rupee payments made on the basis of the accepted rupee component of their bid, would not be repatriable by them. A condition to this effect would be incorporated by the Company in the contract.

23.0 **CONTACTING THE COMPANY**

23.1 Except as otherwise provided in Para 17.0 above, no Bidder shall contact Company on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded except as required by Company vide Para 18.5.

23.2 An effort by a Bidder to influence the Company in the Company's bid evaluation, bid comparison or Contract award decisions may result in the rejection of their bid.

**D. AWARD OF CONTRACT**

24.0 **AWARD CRITERIA:** The Company will award the Contract to the Contractor whose bid has been determined to be substantially responsive and has been

determined as the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

25.0 **COMPANY'S RIGHT TO ACCEPT OR REJECT ANY BID:** Company reserves the right to accept or reject any or all bids and to annul the bidding process and reject all bids, at any time prior to award of contract, without thereby incurring any liability to the affected bidder, or bidders or any obligation to inform the affected bidder of the grounds for Company's action.

26.0 **NOTIFICATION OF AWARD**

26.1 Prior to the expiry of the period of bid validity or extended validity, the Company will notify the Bidder in writing by registered letter or by cable or telex or fax (to be confirmed in writing by registered/courier letter) that his bid has been accepted.

26.2 The notification of award will constitute the formation of the Contract.

26.3 Upon the successful Bidder's furnishing of Performance Security pursuant to Para 28.0 the company will promptly notify each un-successful Bidder and will discharge their Bid Security, pursuant to Para 10.0 hereinabove.

27.0 **SIGNING OF CONTRACT**

27.1 At the same time as the Company notifies the successful Bidder that his Bid has been accepted, the Company will either invite the bidder for signing of the agreement or send the Contract Form provided in the bidding documents. The form will be accompanied by the General Conditions of Contract, Terms of Reference/Technical specifications, Schedules of rates and all other relevant documents.

27.2 Within 30 days of receipt of the final contract document, the successful Bidder shall sign and date the contract and return the same to the Company.

28.0 **PERFORMANCE SECURITY**

28.1 Within 30 days of the receipt of notification of award from the Company the successful Bidder shall furnish the performance security for an amount specified in the Forwarding Letter in the performance Security Form as provided in the Bidding Documents or in any other form acceptable to the Company from a Bank located in India. The performance security shall be payable to Company as compensation for any loss resulting from Contractor's failure to fulfil its obligations under the Contract.

28.2 The performance security specified above must be valid for one year after the date of expiry of the tenure of this contract to cover the warranty obligations indicated in Para 6 of Section III hereof and to lodge claim, if any. The same will be discharged by Company not later than 30 days following its expiry. In the event of extension of contract subsequent to expiry of validity of the original contract period, Contractor shall have to extend the validity of the performance security accordingly.

28.3 Failure of the successful bidder to comply with the requirements of Para 27.0 or 28.0 shall constitute sufficient grounds for annulment of the award. In such an event the Company may award the contract to the next evaluated Bidder or call for new bid or negotiate with the next lowest bidder as the case may be.

**29.0 MOBILISATION ADVANCE PAYMENT**

29.1 Request for advance payment shall not be normally considered. However, depending on the merit and at the discretion of the Company, advance against mobilisation charge may be given at an interest rate of 1% above the prevailing Bank rate (CC rate) of SBI from the date of payment of the advance till recovery/ refund.

29.2 Advance payment agreed to by the Company shall be paid only against submission of an acceptable bank guarantee whose value should be equivalent to the amount of advance plus the amount of interest covering the period of advance.

29.3 Bank guarantee shall be valid for 2 months beyond completion of mobilisation and the same may be invoked in the event of Contractor's failure to mobilise as per agreement.

29.4 In the event of any extension to the mobilisation period, Contractor shall have to enhance the value of the bank guarantee to cover the interest for the extended period and also to extend the validity of bank guarantee accordingly.

**30.0 LIQUIDATED DAMAGES FOR DEFAULT IN TIMELY MOBILISATION:**

30.1 In the event of the Contractor's default in timely mobilisation for commencement of operations within the stipulated period, the Contractor shall be liable to pay liquidated damages at the rate of 1/2% of the total contract value per week or part thereof of delay subject to maximum of 7.5%. Liquidated Damages will be reckoned from the date after expiry of the scheduled mobilisation period till the date of commencement of contract as defined in clause No. 2.0 of Section - I.

30.2 The Company also reserves the right to cancel the Contract without any compensation whatsoever in case of failure to mobilise and commence operation within the stipulated period.

***END OF PART – I***

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## **PART - 2**

### **BID REJECTION CRITERIA (BRC)/BID EVALUATION CRITERIA (BEC)**

#### **I) BID REJECTION CRITERIA (BRC) :**

The bid shall conform generally to the specifications and terms and conditions given in this bid document. Bids shall be rejected in case the services offered do not conform to required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bids to the stipulated specifications, the following requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected.

##### **A. TECHNICAL:**

Bidders must meet the following criteria:

1.0 The bidders shall quote for full scope of work as detailed in "Terms of Reference/Technical Specifications". Bidders who have the experience in Execution & Completion of UBD Wells have to provide the following services as a package:

- **Reservoir Screening of probable five candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells /Submission of Final Report.**

#### **2.0 Experience of Bidder's Personnel:**

2.1 The bidder is required to depute competent personnel having experience in Reservoir Screening of probable candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells of at least three (3) Nos. of UBD wells during the last three years.

2.2 The bidder shall submit the bio-data of personnel proposed to be deployed for the services mentioned above. The bidder should depute competent personnel having minimum 3 years experience in the respective fields.

##### **B. COMMERCIAL – BID SUBMISSION**

1.0 Tender is being processed according to a single stage two bid system, i.e. Technical bid and Price bid separately. Bids shall be rejected outright if the technical bids contain the prices.

2.0 Bidder shall offer firm prices. Price quoted by the successful bidder must remain firm during the execution of the contract and not subject to variation on any account.

3.0 Bid security in original shall be furnished as a part of the bid. The amount of bid security shall be as specified in the bid document. Any bid not accompanied by a proper bid security will be rejected.

4.0 Bids received after bid closing date and time will be rejected.

5.0 The bid documents are not transferable. Offers made by bidders who have not been issued the bid document by the company will be rejected.

6.0 Bidder shall quote directly and not through their agents in India. Offers made by Indian agents on behalf of their foreign principals will be rejected.

7.0 Any bid received in the form of Telex/Cable/Fax/E-mail/Telephone call will not be accepted.

8.0 Bids shall be typed or written in indelible ink and Original bid shall be signed by the bidder or his authorised representative on all pages failing which the bid will be rejected.

9.0 Bids shall contain no interlineation, erasures or over writing except as necessary to correct errors made by bidders, in which case such corrections shall be initialed by the person(s) signing the bid. However, white fluid should not be used for making corrections. Any bid not meeting this requirement shall be rejected.

10.0 Bidders shall bear, within the quoted rates, the personal tax as applicable in respect of their personnel and Sub-contractor's personnel, arising out of execution of the contract.

11.0 Bidders shall bear, within the quoted rate, the corporate tax as applicable on the income from the contract.

12.0 Any bid containing false statement will be rejected.

13.0 Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price Bid proforma of bidding document; otherwise the bid will be summarily rejected.

14.0 Bidder must accept and comply with the following clauses as given in the Tender Document in toto failing which offer will be rejected –

- (i) Performance Guarantee Bond Clause
- (ii) Force Majeure Clause
- (iii) Tax Liabilities Clause
- (iv) Arbitration Clause
- (v) Acceptance of Jurisdiction and Applicable Law
- (vi) Liquidated damage clause
- (vii) Termination Clause

## **C. GENERAL**

1.0 **Proforma-D - The compliance statement should be duly filled up.** In case bidder takes exception to any clause of tender document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw/modify the deviation when/as advised by company. The loading so done by the Company will be final and binding on the bidders.

2.0 To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

3.0 If any of the clauses in the BRC contradict with other clauses of tender elsewhere, then the clauses in the BRC shall prevail.

4.0 Any exception/deviation to tender must be spelt out by bidder in their 'Technical Bid' only. Any additional information/terms/conditions furnished in sealed 'Commercial (Priced) Bid' will not be considered by OIL for evaluation/award of Contract.

## **II. BID EVALUATION CRITERIA (BEC)**

1.0 The bids conforming to the technical specifications, terms and conditions stipulated in the tender and considered to be responsive after subjecting to Bid Rejection Criteria will be considered for further evaluation as per the Bid Evaluation Criteria given below.

2.0 In the event of computation error between unit price and total price, unit price shall prevail.

3.0 Similarly, in the event of discrepancy between words and quoted figures, words will prevail.

4.0 If there is any discrepancy between the unit price and the total price, the unit price will prevail and the total price shall be corrected. Similarly, if there is any discrepancy between words and figure, the amounts in words shall prevail and will be adopted for evaluation.

5.0 For conversion of foreign currency into Indian currency for evaluation of Bids, B.C. selling (Market) rate declared by State Bank of India, one day prior to the date of priced bid opening shall be considered. However, if the time lag between the opening of the bids and final decision exceeds 3(three) months, then B.C. Selling(Market) rate of exchange declared by SBI on the date prior to the date of final decision shall be adopted for conversion and evaluation.

6.0 To ascertain the inter-se-ranking, the comparison of the responsive bids will be made subject to loading for any deviation. Commercial Bids shall be evaluated as under taking into account the rates quoted in the **Price Bid Format** vide **Section - III** :

Total evaluated cost for comparison purpose will be evaluated as given below:

**TOTAL EVALUATED COST: = (A) + (B)**

Where,

**A = Total Cost under Phase - A**

**B = Total Cost under Phase - B**

**Phase 'A' and Phase 'B' are detailed in 'Scheduled of Rates' in Section - III.**

***END OF PART - 2***

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## **PART - 3**

### **SECTION - I**

#### **GENERAL CONDITIONS OF CONTRACT**

##### **1.0 DEFINITIONS**

1.1 In the contract, the following terms shall be interpreted as indicated:

- (a) "Contract" means agreement to be entered into between Company and Contractor, as recorded in the contract signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;
- (b) "Contract Price" means the price payable to Contractor under the contract for the full and proper performance of their contractual obligations;
- (c) "Work" means each and every activity required for the successful performance of the services described in **Section-II**, the Terms of Reference.
- (d) "Company" means Oil India Limited (OIL);
- (e) "Contractor" means the individual or firm or Body incorporated performing the Consultancy study under the Contract.
- (f) "Contractor's Personnel" mean the personnel to be provided by Contractor to provide services as per contract.
- (g) "Company's Personnel" mean the personnel to be provided by OIL or OIL's contractor (other than the Contractor executing the contract). The Company representatives of OIL are also included in the Company's personnel.

##### **2.0 EFFECTIVE DATE, DATE OF COMMENCEMENT OF CONTRACT, MOBILISATION TIME AND DURATION OF CONTRACT:**

2.1 **EFFECTIVE DATE OF CONTRACT** ; The contract shall become effective as of the date Company notified Contractor in writing that it has been awarded the contract. The date of issue of Company's Letter of Award (LOA) shall be treated as the Effective Date of the contract.

2.2 **MOBILISATION TIME** : The date when Contractor's personnel arrive at Duliajan for data gathering shall be treated as the date of mobilisation. Contractor must mobilise their personnel at Duliajan within 15 days from the Effective Date of the contract.

2.3 **DURATION OF CONTRACT** : The duration of the Contract shall be 75(seventy) days from the Effective Date of the contract.

2.4 The completion time may be extended by Company at its sole discretion on request from the Contractor.

3.0 **GENERAL OBLIGATIONS OF CONTRACTOR:** Contractor shall in accordance with and subject to the terms and conditions of the Contract:

3.1 Perform the work described in the Terms of Reference (**Section - II**) in most economic and cost effective way.

3.2 Perform all other obligations, work and services which are required by the terms of this contract or which reasonably can be implied from such terms as being necessary for the successful and timely completion of the work.

3.3 Contractor shall be deemed to have satisfied themselves before submitting their offer as to the correctness and sufficiency of their offer for the services required and of the rates and prices quoted, which rates and prices shall, except insofar as otherwise provided, cover all their obligations under the contract.

3.4 Contractor shall give or provide all necessary services during the performance of the contract and as long thereafter within the warranty period as Company may consider necessary for the proper fulfilling of Contractor's obligations under the contract.

3.5 Except as otherwise provided in the Terms of Reference provide all the personnel required performing the work.

4.0 **GENERAL OBLIGATIONS OF THE COMPANY:** Company shall, in accordance with and subject to the terms and conditions of the contract:

4.1 Pay Contractor for the services actually rendered by them under the contract.

4.2 Allow Contractor access, subject to normal security and safety procedures, to all areas as required for orderly performance of the work.

4.3 Perform all other obligations of Company required by the terms of the contract.

5.0 **CONTRACTOR'S PERSONNEL**

5.1 Contractor warrants that they will provide eligible/short-listed personnel by Company who are competent, qualified and sufficiently experienced to perform the Work correctly and efficiently and shall ensure that such personnel observe applicable Company and statutory safety requirement. Upon Company's written request, Contractor, entirely at their own expense, shall remove immediately, from assignment to the work, any personnel of the Contractor determined by the Company to be unsuitable and shall promptly replace such personnel with personnel acceptable to the Company without affecting Company's work.

5.2 The Contractor shall be solely responsible throughout the period of this contract for providing all requirements of their personnel including but not limited

to their transportation to & fro Duliajan, enroute boarding, lodging etc. However, Company shall provide office space, lodging, boarding and local transport to Contractor's personnel during their stay at Duliajan, Assam.

5.3 Contractor's personnel shall be fluent in English language (both writing and speaking).

#### **6.0 WARRANTY AND REMEDY OF DEFECTS**

6.1 Contractor warrants that they shall perform the work in a first class, workmanlike, and professional manner and in accordance with the highest degree of quality, efficiency and current state of the art technology/oil field practices and in conformity with all specifications, standards and drawings set forth or referred to in the Terms of Reference and with instructions and guidance which Company may, from time to time, furnish to the Contractor.

6.2 Should Company discover at any time during the tenure of the Contract or within one year after completion of the operations that the work does not conform to the foregoing warranty, Contractor shall after receipt of notice from Company, promptly perform any and all corrective work required to make the services conform to the Warranty. Such corrective work shall be performed entirely at Contractor's own expenses. If such corrective work is not performed within a reasonable time, the Company, at its option may have such remedial work performed by others and charge the cost thereof to Contractor, which the Contractor must pay promptly. In case Contractor fails to perform remedial work, or pay promptly in respect thereof, the performance security shall be forfeited.

#### **7.0 CONFIDENTIALITY, USE OF CONTRACT DOCUMENTS AND INFORMATION**

7.1 Contractor shall not, without Company's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing pattern, sample or information/data related to the Consultancy study furnished by or on behalf of Company in connection therewith, to any person other than a person employed by Contractor in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

7.2 Contractor shall not, without Company's prior written consent, make use of any document or information except for purposes of performing the contract.

7.3 Any document supplied to the Contractor in relation to the contract other than the Contract itself remain the property of Company and shall be returned (in all copies) to Company on completion of Contractor's performance under the Contract if so required by Company.

#### **8.0 TAXES:**

8.1 Tax levied as per the provisions of Indian Income Tax Act and any other enactment /rules on income derived / payments received under the contract will be on Contractor's account.

8.2 Corporate income tax will be deducted at source from the invoice at the specified rate of income tax as per the provisions of Indian Income Tax Act as may be in force from time to time.

8.3 Contractor shall be responsible for deduction & payment of personal taxes, if any, for all the personnel deployed in India.

8.4 The Contractor shall furnish to the Company, if and when called upon to do so, relevant statement of accounts or any other information pertaining to work done under the contract for submitting the same to the Tax authorities, on specific request by them. Contractor shall be responsible for preparing and filing the return of income etc. Within the prescribed time limit to the appropriate authority.

8.5 Prior to start of operations under the contract, the Contractor shall furnish the Company with the necessary documents, as asked for by the Company and/or any other information pertaining to the contract, which may be required to be submitted to the Income Tax authorities at the time of obtaining "No Objection Certificate" for releasing payments to the Contractor.

8.6 Tax clearance certificate for personal and corporate taxes shall be obtained by the Contractor from the appropriate Indian Tax authorities and furnished to Company within 6 months of the expiry of the tenure of the contract or such extended time as the Company may allow in this regard.

8.7 Corporate and personal taxes on Contractor shall be the liability of the contractor and the Company shall not assume any responsibility on this account.

8.8 All local taxes, levies and duties, sales tax, octroi, etc. on purchases and sales made by Contractor shall be borne by the Contractor.

8.9 Tax levied as per the provisions of Indian Income Tax Act and any other enactment/rules on income derived/payments received under the contract will be on Company's account.

8.10 **Service Tax:** The price excludes Services Tax and the service tax as applicable shall be to Company's account.

9.0 **INSURANCE:**

9.1 The Contractor shall arrange insurance to cover all risks in respect of their personnel during the currency of the contract.

9.2 Contractor shall at all times during the currency of the contract provide, pay for and maintain the following insurances amongst others:

- a) Workmen compensation insurance as required by the laws of the country of origin of the employee.
- b) Employer's Liability Insurance as required by law in the country of origin of employee.

- c) General Public Liability Insurance covering liabilities including contractual liability for bodily injury, including death of persons, and liabilities for damage of property. This insurance must cover all operations of Contractor required to fulfill the provisions under the contract.
- d) Contractor's equipment provided by the Contractor for performance of the work hereunder shall have an insurance cover with a suitable limit (as per international standards/ as per Indian industry practices).
- e) Automobile Public liability Insurance covering owned, non-owned and hired automobiles used in the performance of the work hereunder, with bodily injury limits and property damage limits shall be governed by Indian Insurance regulations.
- f) Public Liability Insurance as required under Public Liability Insurance Act 1991.

9.3 Contractor shall obtain additional insurance or revise the limits of existing insurance as per Company's request, if any, in which case additional cost shall be to Contractor's account.

9.4 Any deductible set forth in any of the above insurance shall be borne by Contractor.

9.5 Contractor shall furnish to Company prior to commencement date, certificates of all their insurance policies covering the risks mentioned above.

9.6 If any of the above policies expire or are cancelled during the term of the contract and Contractor fails for any reason to renew such policies, then the Company will renew/replace same and charge the cost thereof to Contractor. Should there be a lapse in any insurance required to be carried by Contractor for any reason whatsoever, loss/damage claims resulting there from shall be to the sole account of Contractor.

9.7 Contractor shall require all of their sub-contractors to provide such of the foregoing insurance coverage as Contractor is obliged to provide under the Contract and inform the Company about the coverage prior to the commencement of agreements with their sub-contractors.

9.8 All insurance taken out by Contractor or their sub- contractors shall be endorsed to provide that the underwriters waive their rights of recourse on the Company.

#### 10.0 **CHANGES:**

10.1 During the performance of the work, Company may make a change in the work within the general scope of the Contract including, but not limited to, changes in methodology, and minor additions to or deletions from the work to be performed. Contractor shall perform the work as changed. Changes of this nature will be effected by written Order by the Company (Change Order).

10.2 If any change result in an increase in compensation due to Contractor or in a credit due to Company, Contractor shall submit to company an estimate of the amount of such compensation or credit in a form prescribed by Company. Such estimates shall be based on the rates shown in the Schedule of Rates (**Section - III**). Upon review of Contractor's estimate, Company shall establish and set forth in the Change Order the amount of the compensation or credit for the change or a basis for determining a reasonable compensation or credit for the change. If Contractor disagrees with compensation or credit set forth in the Changed Order, Contractor shall nevertheless perform the Work as changed, and the parties will resolve the dispute in accordance with Clause 14 hereunder. Contractor's performance of the Work as changed will not prejudice Contractor's request for additional compensation for work performed under the Change Order.

#### 11.0 **FORCE MAJEURE**

11.1 In the event of either party being rendered unable by 'Force Majeure' to perform any obligation under the contract, the relative obligation of the party affected by such 'Force Majeure' will stand suspended as provided herein. The term "Force Majeure" as employed herein shall mean act of God, war, revolt, agitation, strikes, riot, fire, flood, sabotage, civil commotion, road barricade (but not due to interference of employment problem of the Contractor) and any other cause, whether of the kind herein enumerated or otherwise which are not within the control of the party to the contract and which renders the performance of the contract by the said party impossible.

11.2 Upon occurrence of such cause and upon its termination, the party alleging that it has been rendered unable as aforesaid thereby, shall notify the other party in writing within Seventy Two (72) hours of the alleged beginning and ending thereof, giving full particulars and satisfactory evidence in support of its claim.

11.3 Should 'Force Majeure' condition as stated above occurs and should the same be notified within seventy two (72) hours after its occurrence, both the parties shall have no obligation. Either party will have the right to terminate the contract if such 'force majeure' condition, continue beyond ten (10) days with prior written notice. Should either party decide not to terminate the contract even under such condition, no payment would apply unless otherwise agreed to.

#### 12.0 **TERMINATION:**

12.1 This contract shall terminate:

(a) Upon completion of the job required to be done by the Contractor according to the Terms of Reference / Technical Specifications with full satisfaction of Company.

OR

(b) For Force Majeure reasons as per clause 11.0 and its sub-clauses above.

OR

(c) Upon declaration of the Contractor that they are unable to continue further operation on technical reasons, acceptable to the Company.

OR

- (d) Under any circumstances considered to be not suitable by Company to continue the operations of the Contract.

OR

- (d) In the event of liquidation / bankruptcy / insolvency of the Contractor.

12.2 In the event of termination of contract, Company will issue 15 days prior written Notice of termination of the contract with date or event after which the contract will be terminated. The contract shall then stand terminated and the Contractor shall demobilise their personnel & materials. Contractor shall be entitled for payment for services actually rendered in conformity with the contract upto the date of its termination.

**13.0 APPLICABLE LAW**

13.1 The Contract shall be deemed to be a Contract made under, governed by and construed in accordance with the laws of India.

13.2 The Contractor shall ensure full compliance of various Indian Laws and Statutory Regulations in force from time to time and obtain necessary permits/licenses etc. from appropriate authorities for conducting operations under the Contract.

**14.0 SETTLEMENT OF DISPUTES AND ARBITRATION:** All disputes or differences whatsoever arising between the parties out of or relating to the construction, meaning and operation or effect of this contract or the breach thereof shall be settled by arbitration in accordance with the Rules of Indian Arbitration and Conciliation Act, 1996. The venue of arbitration will be Duliajan, Assam. The award made in pursuance thereof shall be binding on the parties.

**15.0 NOTICES:**

15.1 Any notice given by one party to other, pursuant to this Contract shall be sent in writing or by Fax and confirmed in writing to the applicable address specified below:

**(A) Company**

(1) **For Contractual matters**

**Head (Contracts)**  
OIL INDIA LIMITED  
DULIAJAN - 786602  
ASSAM, INDIA

(2) **For Technical matters**

Group General Manager(GSc)  
OIL INDIA LIMITED  
DULIAJAN - 786602  
ASSAM, INDIA

**(B) Contractor**

M/s. \_\_\_\_\_

\_\_\_\_\_  
Contact Person:

Fax:

Phone:

E-mail :

15.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

16.0 **SUB-CONTRACTING:** Contractor shall not subcontract or assign, in whole or in part, their obligations to perform under the contract, except with Company's prior written consent.

17.0 **MISCELLANEOUS PROVISIONS:**

17.1 (a) Contractor shall give notices and pay all fees at their own cost required to be given or paid by any National or State Statute, Ordinance, or other Law or any regulation, or bye-law of any local or other duly constituted authority as may be in force from time to time in India, in relation to the performance of the services and by the rules & regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the services.

(b) Contractor shall conform in all respects with the provisions of any Statute, Ordinance of Law as aforesaid and the regulations or bye-law of any local or other duly constituted authority which may be applicable to the services and with such rules and regulation public bodies and Companies as aforesaid and shall keep Company indemnified against all penalties and liability of every kind for breach of any such Statute, Ordinance or Law, regulation or bye-law.

17.2 Key personnel can not be changed during the tenure of the Contract except due to sickness/death/resignation of the personnel or except during the period of leave/ training of personnel in which case the replaced person should have equal experience and qualification which will be again subject to approval by the Company.

18.0 **PERFORMANCE SECURITY:** The Contractor has furnished Performance Bank Guarantee \_\_\_\_\_ (being 10% of the estimated Contract value) in the form of Bank guarantee (No. \_\_\_\_\_ dated \_\_\_\_\_) issued by \_\_\_\_\_. The Performance Bank Guarantee is valid upto \_\_\_\_\_ to cover the duration of contract including warranty obligations indicated in Para 6 of **Section - I** hereof. The performance security shall be payable to Company as compensation for any loss resulting from Contractor's failure to fulfill their obligations under the Contract. In the event of extension of the Contract period, the Contractor shall suitably extend the validity of the bank guarantee. Company will discharge the bank guarantee not later than 30 days following its expiry.

19.0 **LIQUIDATED DAMAGES FOR DEFAULT IN TIMELY MOBILISATION:**

19.1 In the event of the Contractor's default in timely mobilisation of their personnel at Duliajan for commencement of services within the stipulated period as per Para 2.2 of **Section - I**, the Contractor shall be liable to pay liquidated damages at the rate of 1/2% of the total contract value per week of delay subject to maximum of 7.1/2%. Liquidated Damages will be reckoned from the date after expiry of the scheduled mobilisation period till the date of commencement of the contract as defined in Clause No. 2.0 of **Section - I**.

19.2 Company also reserves the right to cancel the Contract without any compensation whatsoever in case of Contractor's failure to mobilise and commence operation within the stipulated period.

20.0 **CONTRACT PRICE**: The Contract Price must remain firm during performance of the Contract and is not subject to variation on any account.

21.0 **LIABILITY**

21.1 Except as otherwise expressly provided, neither Company nor its servants, agents, nominees, Contractors, or subcontractors shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss of or damage to the property of the Contractor and/or their Contractors or subcontractors, irrespective of how such loss or damage is caused and even if caused by the negligence of Company and/or its servants, agents, nominees, assignees, Contractors and subcontractors. The Contractor shall protect, defend, indemnify and hold harmless Company from and against such loss or damage and any suit, claim or expense resulting therefrom.

21.2 Neither Company nor its servants, agents, nominees, assignees, Contractors, subcontractors shall have any liability or responsibility whatsoever for injury to, illness, or death of any employee of the Contractor and/or of its Contractors or subcontractors irrespective of how such injury, illness or death is caused and even if caused by the negligence of Company and/or its servants, agents, nominees, assignees, Contractors and subcontractors. Contractor shall protect, defend, indemnify and hold harmless Company from and against such liabilities and any suit, claim or expense resulting therefrom.

21.3 The Contractor hereby agrees to waive their right to recourse and further agrees to cause their underwriters to waive their right of subrogation against Company and/or its underwriters, servants, agents, nominees, assignees, Contractors and subcontractors for loss or damage to the equipment of the Contractor and/or its subcontractors when such loss or damage or liabilities arises out of or in connection with the performance of the Contract.

21.4 The Contractor hereby further agrees to waive their right of recourse and agrees to cause their underwriters to waive their right of subrogation against Company and/or its underwriters, servants, agents, nominees, assignees, Contractors and subcontractors for injury to, illness or death of any employee of the Contractor and of its Contractors, subcontractors and/or their employees when such injury, illness or death arises out of or in connection with the performance of the Contract.

21.5 Except as otherwise expressly provided, neither Contractor nor their servants, agents, nominees, Contractors or subcontractors shall have any liability or responsibility whatsoever to whomsoever for loss of or damage to the equipment and/or loss or damage to the property of the Company and/or its Contractors or subcontractors, irrespective of how such loss or damage is caused and even if caused by the negligence of Contractor and/or its servants, agents, nominees, assignees, Contractors and subcontractors. The Company shall protect, defend, indemnify and hold harmless Contractor from and against such loss or damage and any suit, claim or expense resulting therefrom.

21.6 Neither Contractor nor their servants, agents, nominees, assignees, Contractors, subcontractors shall have any liability or responsibility whatsoever to whomsoever or injury to, illness, or death of any employee of the Company and/or of its Contractors or subcontractors irrespective of how such injury, illness or death is caused and even if caused by the negligence of Contractor and/or their servants, agents, nominees, assignees, Contractors and subcontractors. Company shall protect, defend indemnify and hold harmless Contractor from and against such liabilities and any suit, claim or expense resulting therefrom.

21.7 The Company hereby agrees to waive its right of recourse and further agrees to cause its underwriters to waive their right of subrogation against Contractor and/or its underwriters, servants, agents, nominees, assignees, Contractors and subcontractors for loss or damage to the equipment of Company and/or its Contractors or subcontractors when such loss or damage or liabilities arises out of or in connection with the performance of the Contract.

21.8 The Company hereby further agrees to waive its right of recourse and agrees to cause its underwriters to waive their right of subrogation against Contractor and/or its underwriters, servants, agents, nominees, assignees, Contractors and subcontractors for injury to, illness or death of any employee of the Company and of its Contractors, subcontractors and/or their employees when such injury, illness or death arises out of or in connection with the performance of the Contract.

22.0 **CONSEQUENTIAL DAMAGE**: Neither party shall be liable to the other for special, indirect or consequential damages resulting from or arising out of the Contract, including but without limitation, to loss of profit or business interruptions, howsoever caused and regardless of whether such loss or damage was caused by the negligence (either sole or concurrent) of either party, its employees, agents or sub-contractors.

23.0 **WAIVERS AND AMENDMENTS**: It is fully understood and agreed that none of the terms and conditions of the Contract shall be deemed waived or amended by either party unless such waiver or amendment is executed in writing by the duly authorized agents or representatives of such party. The failure of either party to execute any right of termination shall not act as a waiver or amendment of any right of such party provided hereunder.

#### 24.0 **PAYMENT & INVOICING PROCEDURE**

24.1 Company shall pay to Contractor, during the term of the Contract, the amount due from time to time calculated according to the rates of payment set and in accordance with other provisions hereof. No other payments shall be due from Company unless specifically provided for in this Contract.

24.2 Payments due by Company to Contractor shall be made at Contractor's designated Bank. All Bank charges will be to Contractor's account.

24.3 Payment of any invoices shall not prejudice the right of Company to question the validity of any charges therein, provided Company within one year

after the date of payment shall make and deliver to Contractor written notice of objection to any item or items the validity of which Company questions.

24.4 Contractor shall submit six sets of all invoices to Company for processing of payment.

24.5 Contractor shall raise invoices on monthly basis for the job done, which is certified by the Company's representatives.

24.6 Payment of invoice, if undisputed, shall be made within 30 days of its receipt at Company's address.

24.7 The Company shall within 20 days of receipt of the invoice notify Contractor of any item under dispute, specifying the reasons thereof, in which event, payment of the disputed amount may be withheld until settlement of the dispute, but payment shall be made of any undisputed portion within 30 days. This will not prejudice the Company's right to question the validity of the payment at a later date as envisaged in Para 24.3 above.

24.8 The acceptance by Contractor of part payment on any billing not paid on or before the due date shall not be deemed a waiver of Contractor's rights in respect of any other billing, the payment of which may then or thereafter be due.

24.9 Contractor shall maintain complete and correct records of all information on which Contractor's invoices are based up to two (2) years from the date of last invoice. Such records shall be required for making appropriate adjustments or payments by either party in case of subsequent audit query /objection.

24.10 Any audit conducted by Company of Contractor's records, as provided herein, shall be limited to Company's verification (i) of the accuracy of all charges made by Contractor to Company and (ii) that Contractor is otherwise in compliance with the terms and conditions of this Agreement.

25.0 **RATE OF PAYMENT:** Company shall make payment to the Contractor as per the agreed rates referred to in **Section - III**. These rates include all taxes, duties and other levies payable by Contractor under the Contract.

26.0 **WITH-HOLDING**

26.1 Company may with-hold or nullify the whole or any part of the amount due to Contractor on account of subsequently discovered evidence in order to protect Company from loss on account of: -

- (a) For non-completion of assigned jobs to the satisfaction of Company.
- (b) Contractor's indebtedness arising out of execution of the Contract.
- (c) Sub-standard work not remedied by Contractor.
- (d) Claims by sub-contractor of Contractor or others filed or on the basis of reasonable evidence indicating probable filing of such claims against Contractor.



## **SECTION - II**

### **TERMS OF REFERENCE/TECHNICAL SPECIFICATIONS**

#### **1.0 INTRODUCTION :**

Oil India Limited (OIL), with its Field Headquarters in Duliajan, Assam, India, is a premier Indian National Oil Company engaged in the business of Exploration, Development, Production and Transportation of Crude Oil, Natural Gas and LPG. The Company owns and operates a range of facilities and services required for the above business in the existing and new concessions in an environment-friendly and financially efficient manner.

The Company presently produces around 3.2 MMTPA of crude oil (around 75,000 barrels per day), around 6 MMSCMD of Natural Gas and over 50,000 Tonnes of LPG. Most of this emanates from its traditionally rich oil and gas fields concentrated in the Northeastern part of India. OIL's old oilfields in Upper Assam include Nahorkatiya (since 1953), Moran (since 1956) and Jorajan (since 1967), which are under production till date. Commercial oil/gas accumulations discovered so far occurs mainly in the faulted anticlinal structures within a depth range of about 2200-3500 m in Miocene and Oligocene reservoirs whereas the Paleocene/Lower Eocene reservoirs are found in general in the range 3400 - 4000m. Formation evaluation through an integrated approach of geological, geophysical, geo-chemical and reservoir engineering studies has allowed the Company to successfully develop and exploit deep (3400-4000 m) thin sand prospects. Presently, more than half of the oil produced by the Company comes from these Paleocene/Lower Eocene thin clastic reservoirs. In addition, OIL holds exploratory acreages in other parts of India independently and jointly both onshore and offshore. OIL also has presence overseas along with IOCL, a Fortune 500 Company.

Oil India Limited (OIL), an integrated National Oil Company, has been carrying out oil exploration and development activities since early fifties. The company is currently producing from a number of depleted fields and also from development as well as exploratory fields in Assam and Arunachal Pradesh.

Underbalanced Drilling (UBD) technology is widely practiced all over the world though this state-of-the-art technology is new to India. This drilling technique mitigates invasion damage, increases production performance, enhance recovery and considered economical method for drilling in depleted/low pressure and clay-rich reservoirs. Since the reservoirs in mature fields viz., Nahorkatiya, Jorajan, Moran, Shalmari etc. are depleted; recovery of bypassed/leftover hydrocarbon is difficult through conventional infill drilling and completion technique. Under such conditions, UBD can play a major role in minimizing drilling problems, increase in ROP, less reservoir damage and finally increased productivity. The UBD technique can also be attempted in low pressure reservoirs such as that of North Hapjan-Makum area to avoid aforesaid reservoir damage and to increase productivity of the same.

The advantages of UBD in comparison to conventional drilling (overbalanced) can be broadly summarized as under –

- Reduces formation damage and enhances reservoir characterization.
- Increases recovery, increases reservoir productivity-production may increase by 50-100%.
- NPV (Net Present Value) of well may increase by 2 to 10 times or more.
- Production flowing from unsuspected zones - identifies missed pay, accesses challenging reservoirs.
- Real time reservoir investigation.
- Better cutting removal can double ROP and maximize bit life.
- No loss circulation.
- Control fluid influx – by drilling with BHP designed and maintained below reservoir pressure.
- Producing while drilling.

## 2.0 **GENERAL DESCRIPTION OF AREA OF STUDY**

The area of study is bounded in the north by the eastern Himalayas and in the south and southeast by the Naga-Patkai hill ranges. The Tertiary sediments in the shelf zone of the basin ranges from 3.6 to more than 7.0 km, and include shallow marine Paleogene and continental Neogene and younger sediments overlying a granitic basement.

In almost all the reservoirs (except for the Eocene reservoirs), the initial reservoir pressure is hydrostatic (0.434 psi/ft) and geothermal gradient is about 1.2 °F/100 ft. In the Eocene reservoirs, initial reservoir pressures are generally 40 – 45 kg/cm<sup>2</sup> above hydrostatic, while the temperature gradient is about 1.4 ° F/100 ft. Almost all the wells are completed with 5.1/2" production casing and 2.7/8" tubing strings. The location of the oilfields is shown in **Figure-1** and brief description of these oilfields is enumerated in the following paragraphs:

### **(A) Nahorkatiya Field:**

Nahorkatiya is a high relief E-W trending faulted anticlinal structure covering an area of about 30 sq. kms and with a vertical closure up to 200 meters. The closure is provided by a major fault system to the north and the dip provides closure on the other side. A number of faults trending northeast to southwest locally separate the fields into distinct compartments.

The major reservoirs of Nahorkatiya field are sandstones of Barail group of Oligocene age, which were deposited in fluvial environment. The Barail group has been locally subdivided into separate reservoirs named as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup>+5<sup>th</sup> sand sequentially from top to bottom; the first four being the channel sands within a primarily argillaceous group and the fifth sand being the arenaceous group with thin clay/shale inter-beds. Reservoir horizons have also been identified in the overlying Tipam formation of Miocene age in parts of the field.

A large number of wells are producing from geologically complex reservoirs. Reservoir drive mechanisms vary from reservoir to reservoir ranging from strong aquifer drive or gas-cap expansion drive to weak edge water and solution gas drive. Most of the reservoirs have been producing primarily under natural depletion. In the individual reservoirs where initial pressure support has been weak, reservoir pressure maintenance through water and gas injection have been resorted to and these measures have contributed to additional oil recovery. The depth of Barail pay sands varies between 2650m to 3100m. Around 200 wells have been drilled in this field as on date at an average well spacing of 400m and around 47.5 MM m<sup>3</sup> of oil has so far been produced. The current production from this field is around 500 m<sup>3</sup>/day oil and 750 m<sup>3</sup>/day water with average field GOR of around 700 scum/m<sup>3</sup>. Intermittent gas lifting is the main method of artificial lifting although other lift techniques (rod pump, hydraulic pump, submersible pump etc) have also been tried out on a limited scale with varied results. Out of the pumping techniques, rod pumping appears to have highest potential use, particularly in the oil-water producers.

**(B) Zaloni Field:**

The Zaloni field is situated on a dome like anticlinal structure whose crest is elongated in a northeast to southwest direction. Zaloni field is situated to the immediate northeast of Nahorkatiya oilfield and is bounded in the northwest and southeast by ENE to WSW trending faults. These faults are the northeast extension of the fault system which forms the northern boundary of the Nahorkatiya field. The field covers an area of about 16 sq. kms with a vertical closure of up to 100 metres. The major reservoir units of the Zaloni field are Barail Sandstone group of Oligocene age with flood plains/delta front origin. The Barail group has further been subdivided into several reservoir units such as 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> sands (sequentially from top to bottom) under similar depositional environments as in case of Nahorkatiya oilfield. Reservoir horizons have also been identified in overlying Tipam formation of Miocene age.

The initial natural reservoir drive mechanisms have been similar to those as Nahorkatiya oilfield and wherever required these have been supplemented by gas and water Injection. The depth of hydrocarbon bearing Barail Sandstone reservoir varies between 2500 to 2800 m.

Till date, around 70 wells have been drilled within this field with approximate 400m spacing and around 18 MM m<sup>3</sup> of oil has been produced so far. The current production from this field is around 300 m<sup>3</sup>/day oil and 500 m<sup>3</sup>/day water with average field GOR of around 800 scum/m<sup>3</sup>. Intermittent gas lifting and rod pumping are the artificial lift methods employed in the wells.

**(C) Moran Field:**

The Moran field is located at about 50 km southwest of Nahorkatiya field. Moran field is a dome like anticlinal structure which is elongated in approximately northeast to southwest direction. This field is divided into two blocks namely Moran-West and Moran-East by a major northeast to southwest trending fault heading towards southeast of Moran field. The field covers an area of approximately 20 sq. kms with closure varying between 70 meters in the East field to 100 meters in the West field. The major reservoirs of the Moran field are

sandstones of Barail group of Oligocene age which are of flood plains/delta front origin. Locally Barail group has been subdivided into three reservoir units named as Upper, Middle and Lower Sandbodies. The depth of the reservoirs varies between 3200 to 3550 m. The reservoirs have produced under natural depletion with aquifer influx as the dominant drive mechanism in the Western field while solution gas drive being the dominant drive mechanism in the eastern field.

The reservoir pressures have been supplemented in the major reservoirs wherever necessary in both the blocks.

A total of 100 wells have been drilled so far at an average well spacing of around 400-450 m and as on date the field has produced close to 22 million m<sup>3</sup> of oil. The current production from this field is around 300 m<sup>3</sup>/day oil and 900 m<sup>3</sup>/day water with average field GOR of around 250 scum/m<sup>3</sup>. Intermittent gas lifting is extensively used for artificial lifting of the oil wells.

**(D) Jorajan Field:**

a) The Jorajan oilfield comprises of seven structural closures, viz., Langkasi, Kathalguri, Nagajan, Jorajan, Jaipur, Santi and Tarajan with areal extent varying between 8-20 sq. kms each on the southern flank of a regional basement high. Oil and gas accumulation occurs in the field within Oligocene-Miocene sandstone reservoirs within depth range of 2100 to 3600 m. The field is on regular production since early 1970. In 1990, deeper Lower Eocene play has been established in its immediate vicinity over the basement high. In all these structures, Eocene plays were not pursued during exploration and development stage. As such, hydrocarbon prospectivity of the deeper Eocene formations in the area is yet to be fully ascertained. In addition, there could be subtle prospects that are yet to be explored within and in between established oilfield at Tipam and Barail level.

b) The major oil reserves in Langkasi are confined to Oligocene formation while in other areas; they are confined to both Oligocene (Barail) and Miocene (Tipam) formations. The Barail group has been subdivided as Barail arenaceous formation at the bottom comprising mainly sandstones with minor shale beds and Barail argillaceous formation comprising mainly shale, mudstone, carbonaceous shale, coal and sandstone. These are mainly lower delta plain deposits. The Tipam Group is sub-divided into two formations viz. Tipams and Girujans. The Tipam formation is divided as Upper Tipam, consisting mainly of sandstones, Middle Tipam, consisting of sandstone and shale alternations and Lower Tipam, consisting mainly of sandstone with minor shale. These are mainly riverine, braided channel deposits. The Girujans consist of mainly mottled clay with few sandstone lenses. It was deposited in backwaters of river system.

c) The field has been sub-divided into about 100 reservoirs of which 40 have OOIP more than 1 MM std m<sup>3</sup>. The recovery from this oilfield, till date, is around 10% of OOIP in over 30 years of production. Reservoirs of Miocene sandstone are characterized by early breakthrough of formation water, sand ingress, reduction in near wellbore permeability due to structural expansion and migration of fine clays and sand particles. Paraffin deposition in the tubing is another major production problem. Additionally, fresh water injection causes severe destabilization due to

ion exchange between injected water and native clays thus reducing the injectivity. The upper part of the Miocene sandstone contains water sensitive smectite and smectite chlorite clays with subordinate kaolinite and minor illites whereas the lower part contains kaolinite with subordinate smectite and illite/chlorite.

d) So far, around 250 wells have been drilled and completed in this oilfield since the start of its regular production in 1971, and has produced about 17 million tonnes of oil. The current production from this field is around 360 m<sup>3</sup>/day oil and 970 m<sup>3</sup>/day water. Intermittent gas lifting and rod pumping are the artificial lift methods employed in the wells.

**(E) Shalmari Field:**

a) The Shalmari oilfield was discovered in 1986. The Shalmari high (at Oligocene level) is divided into three individual blocks viz., well SLM-5 Block, well SLM-1 Block and a fault closure identified south-east of well SLM-19 (SLM-19 extension Block) and trending WNW-ESE. Shalmari high trend is flanked by two low trends. The low, lying in the north-eastern flank is prominent and extends south easterly. The reservoir is a fluvial channel deposit with the channel axes mostly running from ENE to WSW and sometimes from west to east Hydrocarbon prospects in this structure are mainly confined to the Oligocene (Barail) sandstone reservoirs and the major production is being contributed by the Barail Fourth Sand reservoirs of Well SLM-1 and 5 Blocks. These two reservoirs contain about 55% of total OOIP of Shalmari oilfield and are presently contributing around 63% of Shalmari oilfields total crude oil production.

b) The field's main reservoir driving mechanism is edge water drive, supplemented by water injection, wherever needed. The first pressure maintenance scheme with water injection was initiated in July 1994 (Shalmari 5 block). Combining the two reservoir Blocks, around 56% of total OOIP of Shalmari oilfield has been subjected to pressure maintenance / IOR schemes.

c) Till date, 36 wells have been drilled in the two reservoirs out of which 4 wells have been drilled for probing hydrocarbon prospects in Eocene. The two reservoirs have so far produced about 3.5 million m<sup>3</sup> of oil, and the current production is around 200 m<sup>3</sup>/day oil and 200 m<sup>3</sup>/day water with average field GOR of around 400 scum/m<sup>3</sup>.

**(F) Makum – North Hapjan Field:**

Makum - North Hapjan structure was first identified based on interpretation of 24 fold CDP seismic data acquired in 1987-88. Presence of oil was established in Barail 4<sup>th</sup> + 5<sup>th</sup> Sand reservoir with the drilling of the first well in 1993. The Structure was covered by 3D seismic survey during 1993-94 along with the adjoining Hapjan structure over an area of 93 sq. kms. Makum-North Hapjan Field in Upper Assam basin discovered in 1993 produces about 2000 klpd oil from 4<sup>th</sup> + 5<sup>th</sup> Sand reservoir of the Barail Arenaceous sequence through 40 wells (3 horizontals and 37 conventional vertical wells). Possible hydrocarbon bearing sands have also been encountered in the Tipam Formation in the structure, which however have not been tested in any of the wells.

The structure is a horst block bounded by NNE-SSW trending normal faults on either side. Within the horst block, both Makum and North Hapjan structures are elongated anticlines. These two structures are separated by two opposite dipping NNE-SSW trending faults, passing through the middle of the horst block. Beside these two faults, there are number of NE-SW trending normal faults with minor displacement (5-15m).

Low drop of reservoir pressure drop even after 13 years of production history, low drawdown and 11.7% production of STOOIP is indicative of highly active aquifer, good reservoir permeability and good PI (Productivity Index). The field has so far produced about 3.2 million m<sup>3</sup> of oil. The current production from this field is around 2100 m<sup>3</sup>/day oil and 300 m<sup>3</sup>/day water with average field GOR of around 270 scum/m<sup>3</sup>.

**(G) Eocene Fields:**

The Paleocene-Eocene reservoirs within OIL's operational areas of Upper Assam constitutes a new hydrocarbon play which has been proved by commercial production in early 90's from the main structures of Dikom, Kathaloni, Tengakhat and Bhogpara. Commercial discovery of hydrocarbons has also been made in adjoining structures. The wells completed as Paleocene/Eocene producers are currently contributing about 60% of OIL's total daily average production out of which Dikom, Kathaloni, Tengakhat and Bhogpara fields are contributing around 45%. All these prospects and the areas are still undergoing exploration for Paleocene/Eocene and would continue to play an important role in the future oil production scenario in upper Assam basin.

The structures where Paleocene/Eocene hydrocarbon prospects have been discovered lie within a radius of 50 km from OIL's headquarters in Duliajan, Assam. The main hydrocarbon prospects in the Eocene reservoirs, in general, are confined to what is locally known as Lakadong member. On the basis of lithological and reservoir characteristics, wireline log signature, thickness variation and their vertical variation, the sandstone reservoirs have been tentatively divided into three possible genetic groups viz. Thin, Thick and Highly Heterogeneous sand groups.

The Thinly bedded (1.5-2.0 m) sandstone reservoirs interbedded with carbonaceous shales/shales of marshy/lagoonal origin occur in the lower part of the Lakadong member. These reservoirs are characterized by low to moderate porosity and high pour point heavy oil. The continuity of the reservoirs over long distance is possibly limited.

The Thick Sand group (> 3m) consists of comparatively clean and thick sandstone ranges characterized by good reservoir qualities. This sand group characterized by funnel shaped gamma ray/SP and resistivity log pattern with gradational basal contact and sharp top was possibly deposited in a sand-rich strand plain/barrier bar system. Tectono-sedimentary analysis of the Upper Assam basin indicates a shallow marine environment of deposition of Paleocene-Lower Eocene sediments. These productive zones, in general, are highly porous and permeable.

The upper part of the Lakadong member consists of highly heterogeneous, calcareous sandstone beds with thin interbeds of comparatively porous and permeable intervals.

The Eocene reservoir pressure is generally about 40 kg/cm<sup>2</sup> above hydrostatic in these areas with geothermal gradient of 1 degree F/100 ft. The reservoirs lie at a depth from 3400 to 4000+ m and from pressure production behavior, they appear to be supported by aquifers from edge.

The Eocene reservoirs have been conventionally cored in a couple of wells. Build-up permeability data show a range from 50 to 5000 md in the Eocene reservoirs. Similarly, PI of the wells also widely varies from 6 m<sup>3</sup>/ksc to 65 m<sup>3</sup>/ksc over the entire area of established Eocene prospects. Some of the possible oil bearing sand-bodies have not been tested so far and hence it is not yet been clearly established whether the various sand-bodies are the part of the same reservoir or different and isolated reservoirs. With the existing seismic data, lateral/vertical sand extent and correlation of these thin stratigraphic units at the depths cannot be confidently resolved.

Till date, around 43 wells have been drilled in Dikom and the current production from this field (through 21 producers) is around 500 m<sup>3</sup>/day oil and 590 m<sup>3</sup>/day water with average field GOR of around 580 scum/m<sup>3</sup>. Dikom field has so far produced around 8.0 MM m<sup>3</sup> of oil. Around 43 wells have been drilled in Kathaloni and the current production from this field (through 31 producers) is around 1000 m<sup>3</sup>/day oil and 1000 m<sup>3</sup>/day water with average field GOR of around 300 scum/m<sup>3</sup>. Kathaloni field has so far produced around 6.0 MM m<sup>3</sup> of oil. Around 38 wells have been drilled in Tengakhat and the current production from this field (through 31 producers) is around 1500 m<sup>3</sup>/day oil and 550 m<sup>3</sup>/day water with average field GOR of around 400 scum/m<sup>3</sup>. Tengakhat field has so far produced around 5.3 MM m<sup>3</sup> of oil. Around 13 wells have been drilled in Bhogpara and the current production from this field (through 11 producers) is around 800 m<sup>3</sup>/day oil and 360 m<sup>3</sup>/day water with average field GOR of around 90 scum/m<sup>3</sup>. Bhogpara field has so far produced around 1.1 MM m<sup>3</sup> of oil.

So far, about 31%, 23%, 32% and 15% of STOOIP has been produced from the Dikom, Kathaloni, Tengakhat and Bhogpara fields, respectively. Of late, however, these fields have been besieged by a number of problems which are of great concern. Productivity from a good number of wells has gone down substantially with fast rise in water-cut while a number of wells have ceased to flow requiring artificial lift. Some other wells are showing relatively higher rise in water cut and drop in reservoir pressure. In Dikom field, a number of wells including a couple of up-dip wells are producing with high water cut.

Almost all the wells are completed with 5.1/2" production casing and 2.7/8" tubing strings (barring few which are completed with 7" production casing). Some wells have been put into intermittent gas-lift as a result of low tubing head pressure and increasing water cut

3.0 **BROAD SCOPE OF WORK:** Since implementation of UBD is cost-intensive, it has been planned that at least 5 (Five) reservoirs may be undertaken for initial screening and suitability study prior to carrying out underbalanced drilling.

### **Underbalanced Drilling Strategy**

The application of underbalanced drilling (UBD) technology has enabled the commercial development of numerous oil and gas reservoirs worldwide. Underbalanced drilling was only possible through the integration of many developing technologies including directional control of the well trajectory, bottom hole circulating pressure and the safe handling of drilling fluids and cuttings. Technological advancements have permitted efficient recovery of well bore liquids and gases to aid in the economic feasibility of employing underbalanced drilling technology. Properly engineered and executed underbalanced Drilling operations should maximize well bore productivity and provide real time reservoir evaluation, while eliminating fluid losses, differential pipe stuck and increasing penetration rates.

OIL intends to hire expert services to carry out screening of OIL reservoirs and conduct feasibility studies of candidate reservoirs for successful application of UBD technology. The services also include well profile design, equipment and associated services along with consumables for drilling well(s) using UBD technology.

Bidder has to categorically meet all the “technical specifications, documentary evidence and supporting printed literature” requirement of the Scope of Work as defined by Oil India Limited (OIL) in the section under “Terms of Reference & Technical Specifications” of the tender document.

### **3.1 The scope of work shall consist of:**

**“Reservoir Screening of probable five candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells /Submission of Final Report”.**

Bidder shall quote for full Scope of Work, without any exception or deviation, comprising of as listed in “Terms of Reference and Technical Specification” of the tender document.

### **3.2 Experience of Bidder’s Personnel:**

3.2.1 The bidder is required to depute competent personnel having experience in Reservoir Screening of probable candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells of at least three (3) Nos. of UBD wells during the last three years.

3.2.2 The bidder shall submit the bio-data of personnel proposed to be deployed for the services mentioned under serial no. 3.2.1 in clause 3.2 above. The bidder

should depute competent personnel having minimum 3 years experience in the respective fields.

**3.3** The bidders shall quote **LUMP SUM** for full scope of work. Bidder has to provide the following services as a package:

- **Reservoir Screening of probable five candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells/Submission of Final Report.**

**3.4 THE SCOPE OF THE STUDY:**

During the study phase, the Contractor will carry out the followings:

The objectives of the proposed UBD Reservoir Screening and Feasibility Studies are to assist OIL in:

- Evaluating and ranking a reservoir's risked probability of being successfully exploited with Underbalanced Drilling (UBD) and completion techniques as opposed to conventional drilling and completion techniques.
- Determining if further justification, using Underbalanced reservoir evaluation technique, is necessary to assess the reservoir's UBD candidacy.
- Determine the technical feasibility of drilling new wells/re-entry wells in the Assam Fields using UBD techniques.
- Highlight complimentary technologies that may be utilized in optimizing wellbore constructions and completions. This may include expandable liner technology, alternate borehole liners and smart completions.
- Compare candidate reservoir(s) with analogs proven to be suitable to underbalanced drilling.
- Identify the best potential underbalanced candidate from a given portfolio.
- The main factors to be considered during selection of a UBD candidate well:
  - Damageability
  - Effect of Damage on Production
  - Effect of Damage on Recovery
  - Treatability
  - Geological Factors
  - Economics
  - Borehole Instability
  - Wellhead Pressure
  - Minimum Pore Pressure Gradient
  - Low Mobility

- The Study will address the preliminary design phase to determine if it is feasible to drill the well(s) in the screened reservoirs with UBD techniques. If the fields are found to be good candidates for the application of UBD, a fluid system, a gas injection method and preliminary equipment requirements will be proposed. Also, if Measured Pressure Drilling (MPD) techniques are found to be applicable, the basis of design will be evaluated and presented as a first step.
- **Detailed UBD Engineering Study:** It is expected that the Contractor submit a detailed UBD engineering study, covering each section to be drilled using UBD. This will enable Company to determine Contractor's technical ability to perform the work requested.
- If found to be suitable for application of Underbalanced Drilling (UBD) technology which may involve drilling of new wells using UBD technique, the Contractor will propose for drilling well(s) after the Study. OIL may go for future drilling of wells using UBD technology in its Upper Assam fields.
- The Contractor will also explore the possibilities of re-entry, drilling and completion of old well(s) and if found suitable candidate(s), the Contractor will propose for drilling well(s) using UBD technique.
- Construction & Design of UBD Well(s) and Completion Policies for Well(s) and recommendation for any refurbishment of the Company's Rig to make it suitable for drilling using UBD technique. The contractor will study one rig for drilling and another workover rig for re-entry wells, offered by Company and its tools and equipment and the services available with Company including cement, cementing facility, mud handling system and solid control equipment and other facilities etc. so that they can make a realistic assessment about Company's in-house infrastructural facilities which could be possibly utilized during execution of the project.

**Scope of Work of the Study also includes :**

- **Technical Feasibility Screening:**

To evaluate the technical merits of UBD in terms of maintaining an underbalanced state through out the entire openhole section and conclude the feasibility of the UBD application. The evaluation should be based on extensive multiphase well flow simulations. Because of the nature of the underbalanced state, the well while drilling underbalanced will be considered in a production mode. Hence, the various phases of circulation and flow need to be adequately modeled for flow in the wellbore. Several correlations are to be used for the best matches with the specific needs. The simulations will be based on the current well designs. Alternate designs are also to be carried out, if the current designs do not fit the UBD conditions.

- **Drilling Fluids:**

During the Study Phase, it will be required to identify the suitable drilling fluid along with all special chemicals which will be used for UBD. Also to identify the possible problems may be encountered

during UBD program and measures such as demulsifiers, corrosion inhibitors to rectify the situation. At this stage, it is necessary to know whether any lab work is required before going further.

- **Equipment Requirement:**

A basic UBD equipment requirement is expected to be available at the end of the study. In addition to above, in this Study, the contractor will carry out following activities in association with a Multidisciplinary team from OIL.

The activities are:

- (i) The drilling and completion policies of UBD wells.
- (ii) Well trajectory, (KOP, BUR, hole sizes etc)
- (iii) Mud policy, hydraulics design and procurement of special mud chemicals, if any.
- (iv) Torque and drag, anti-collision analysis
- (v) Drill string design and BHA requirements
- (vi) Intermediate logging requirement, if any.
- (vii) MWD, LWD and other equipment requirement with technical details.
- (viii) Option of sail angle drilling/pilot hole drilling, if required.

OIL will provide the specification of the rigs already used to drill highly deviated wells/J-bend/Horizontal wells and also Workover rigs (for re-entry), for contractor to study the same (if necessary) and OIL team with Contractor's expert will recommend changes required to make the rig suitable for UBD Wells.

- The various drilling parameters of the UBD well(s), planned to be drilled are to be decided in the Study Phase.
- The following information/lists to be prepared and submitted to Company:
  - Suitability of rig and rig accessories available with Company and short listing of items, services/facilities available with Company which are suitable for the project.
  - Additional tools, equipments, chemicals, rig accessories etc. required for drilling/side tracking which are to be hired or purchased by Company.

**Work Schedule of the Study:**

The Work schedule will consist of the following steps:

- (a) The Contractor' team will review/collect all relevant basic data (geology, reservoir, production, well data etc.) offered by OIL in Duliajan, Assam. The team will collect all the required data in co-operation with Company's personnel. The Contractor will prepare a detailed list of the data collected by them with a detail "Status Report"

and a copy of this report will be handed over to Company prior to leaving Duliajan.

- (b) During the same data collection phase, the Contractor's team will visit to Company's field installations and inspect rigs, rig accessories, tools, equipments and other services available with Company, which could be possibly utilized for UBD drilling.
- (c) After data collection & completion of the studies, the contractor has to submit the Draft Report along with recommendations, including the source of the special equipments/chemicals, if recommended, to OIL (3-days before presentation) followed by presentation of the same at Duliajan.

The Contractor will submit the final report after incorporating Company's comments within 10 days after presentation of the draft report.

The Draft Report will be reviewed by appropriate OIL authority and OIL authority may suggest for some changes or incorporation of additional points. With the incorporation of mutually agreeable suggestion / points in the final report, the presentation will be organized jointly by Contractor's team & OIL's MDT (Multi Disciplinary Team) in Duliajan.

The Contractor's team of expert(s) is required to be present at Duliajan during "Presentation of Final Report".

The scope of work for the above will be deemed to be completed only when the Final Report, after incorporating mutually acceptable changes of the draft report, is accepted by the Company and presentation on final report is conducted by Contractor's team of experts.

The responsibility for executing the work schedule as described above and selection of UBD wells for drilling and preparation of the Final Report will entirely lie on Contractor, notwithstanding the fact that OIL's MDT (Multi Disciplinary Team) will jointly work with Contractor's team of experts throughout the work schedule.

### **TRAINING AND TRANSFER OF TECHNOLOGY**

The following will be the terms for training and transfer of technology:

- During all the critical phases of the study, OIL personnel will be associated with the Contractor for on the job training and technology transfer.
- All facilities of the Contractor related to this study will be made accessible to OIL personnel by Contractor.

- All expenses for OIL personnel's visit to Contractor's office will be borne by OIL. The Contractor will provide working space at their offices to OIL's personnel at no extra cost.

Cost of the entire work to be carried out will be **LUMP SUM**.

Contractor's experts (Design team) may be called by OIL to Duliajan for clarification/Discussion/Design of new well/Re-design of any well with no additional cost to OIL.

The contractor will be required to submit at least 6 (six) copies of "Final Report" (hard bound/spiral bound) on 3 (three) identified UBD wells.

**Completion Time of the Study:**

The completion time of the entire Study is expected to be 75 days including submission of final report from the date of issuance of Letter of Award(LOA). The scope of work for the above will be deemed to be completed only when the final report, after incorporating mutually acceptable changes of the draft report, is accepted by the Company.

The contractor shall mobilize their experts to Duliajan [for carrying out the activity] within 15 days from the date of issuance of LOA.

The "Status Report" will be submitted within 25 days from the date of issuance of LOA.

The "Draft Report" will be submitted within 65 days from the date of issuance of LOA.

The presentation on "Final Report" (with incorporation of mutually acceptable changes or additional points) and submission of "Final Report" will take place within 75 days from the date of issuance of LOA.

**3.5 MOBILIZATION PERIOD FOR:**

- Reservoir Screening of probable five candidate reservoirs and Identification of suitable UBD Wells/UBD Well Construction & Design/Well Planning Service and Well Completion Design of UBD Wells /Submission of Final Report.

Bidder has to categorically confirm that mobilization period against the Study Phase of the contract as indicated below, is accepted by the bidder without any exception or deviation.

- Mobilization of personnel & equipment (if any) for the Study Phase, shall have to be completed by the Contractor within 15 days from the date of issuance of LOA (Letter of Award).

**END OF SECTION - II**

**&&&&&&&&**



**SUGGESTED FORMAT OR CURRICULUM VITAE FOR MEMBERS  
OF CONSULTANT’S TEAM**

Name \_\_\_\_\_

Profession \_\_\_\_\_

Years with Firm -----Nationality-----

Proposed Position on Team-----

**Key Personnel’s Qualifications:**

(Under this heading, give outline of staff member’s experience and training, most pertinent to assigned work on proposed team. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use up to half-a-page)

**Education:**

(Under this heading, summarize college/university and other specialized education of staff member, giving names of schools, dates attended and degrees obtained. Use up to a quarter page)

**Experience Record:**

(Under this heading, list all positions held by staff member since graduation, giving dates, names of employing organisation, title of positions held and location of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate. Use up to three-quarters of a page).

**Languages:**

(Indicate proficiency in speaking, reading and writing of each language by “excellent”, “good”, “fair” or “poor”)

\_\_\_\_\_ Date \_\_\_\_\_

(Signature of Staff Member)

Countersignature of the authorized signatory of the quotation/ bidder.

**STATEMENT OF COMPLIANCE**

<b>SECTION NO.</b>	<b>CLAUSE NO./ SUB-CLAUSE NO.</b>	<b>COMPLIANCE/ NON-COMPLIANCE</b>	<b>REMARKS</b>
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**Signature of the bidder**

**BID FORM**

To  
M/s. Oil India Limited,  
**Contracts Department**  
P.O. Duliajan, Assam, India

**Sub:** Tender No. **OIL/CCO/GEOL/GLOBAL/202/2007**

*Gentlemen,*

Having examined the General and Special Conditions of Contract and the Terms of Reference including all attachments thereto, the receipt of which is hereby duly acknowledged, we the undersigned offer to perform the services in conformity with the said conditions of Contract and Terms of Reference for the sum of \_\_\_\_\_ (Total Bid Amount in words and figures) or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to commence the work within ( ) days calculated from the date of award of contract.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum not exceeding \_\_\_\_\_ for the due performance of the Contract.

We agree to abide by this Bid for a period of 120 days from the date fixed for Bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof in your notification of award shall constitute a binding Contract between us.

We understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

Signature

Name:

\_\_\_\_\_  
**(In the capacity of)**

**FORM OF BID SECURITY (BANK GUARANTEE)**

To:  
M/s. OIL INDIA LIMITED,  
For Head(Contracts)  
Duliajan, Assam, India, Pin - 786 602.

WHEREAS, (Name of Bidder) \_\_\_\_\_ (hereinafter called "the Bidder") has submitted their offer Dated \_\_\_\_\_ for the provision of certain oilfield services (hereinafter called "the Bid") against OIL INDIA LIMITED, Duliajan, Assam, India (hereinafter called the Company)'s Tender No.: OIL/CCO/GEOL/GLOBAL/202/2007. KNOW ALL MEN BY these presents that we (Name of Bank) \_\_\_\_\_ of (Name of Country) \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called "Bank") are bound unto the Company in the sum of (\*) for which payment well and truly to be made to Company, the Bank binds itself, its successors and assignees by these presents. SEALED with the common seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 2007.

THE CONDITIONS of these obligations are:

- (1) If the Bidder withdraws their Bid during the period of Bid validity specified by the Bidder; or
- (2) If the Bidder, having been notified of acceptance of their Bid by the Company during the period of Bid validity:
  - (a) Fails or refuses to execute the form of agreement in accordance with the Instructions to Bidders; or
  - (b) Fails or refuses to furnish the Performance Security in accordance with the Instructions to Bidders;

We undertake to pay to Company up to the above amount upon receipt of its first written demand (by way of letter/fax/cable), without Company having to substantiate its demand provided that in its demand Company will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including the date (\*\*) and any demand in respect thereof should reach the Bank not later than the above date.

SIGNATURE AND SEAL OF THE GUARANTORS \_\_\_\_\_

Name of Bank & Address \_\_\_\_\_

Witness \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_  
(Signature, Name and Address)

Date: \_\_\_\_\_

Place: \_\_\_\_\_

\* The Bidder should insert the amount of the guarantee in words and figures.

\*\* Date of expiry of Bank Guarantee should be minimum 30 days after the end of the validity period of the Bid.

**FORM OF PERFORMANCE SECURITY (BANK GUARANTEE)**

To :  
M/s. OIL INDIA LIMITED,  
**For: Head (Contracts),**  
Duliajan, Assam, India, Pin - 786 602.

WHEREAS \_\_\_\_\_ (Name and address of Contractor) (hereinafter called "Contractor") had undertaken, in pursuance of Contract No. \_\_\_\_\_ to execute (Name of Contract and Brief Description of the Work) \_\_\_\_\_ (hereinafter called "the Contract").

AND WHEREAS, it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee as security for compliance with Contractor's obligations in accordance with the Contract.

AND WHEREAS, we have agreed to give the Contractor such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are Guarantors on behalf of the Contractor, up to a total of (Amount of Guarantee in figures ) \_\_\_\_\_ (in words)(\_\_\_\_\_), such amount being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of guarantee sum as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein. We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or the work to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way cease us from any liability under this guarantee, and we hereby waive notice of such change, addition or modification.

This guarantee is valid until the date \_\_\_\_\_ (calculated at 12 months after Contract completion date).

SIGNATURE AND SEAL OF THE GUARANTORS \_\_\_\_\_  
Designation \_\_\_\_\_  
Name of Bank \_\_\_\_\_  
Address \_\_\_\_\_

Date ..... Place \_\_\_\_\_

**AGREEMENT FORM**

This Contract is made on \_\_\_\_ day of \_\_\_\_\_ between M/s. Oil India Limited, a Government of India Enterprise, incorporated under the Companies Act 1956, having its registered office at Duliajan in the State of Assam, hereinafter called the "Company" which expression unless repugnant to the context shall include executors, administrators and assignees on the one part, and M/s. \_\_\_\_\_ (Name and address of Contractor), hereinafter called the "Contractor" which expression unless repugnant to the context shall include executors, administrators and assignees on the other part.

WHEREAS, the Company desires that Services \_\_\_\_\_ (brief description of services) should be provided by the Contractor as detailed hereinafter or as Company may requires.

WHEREAS, Contractor engaged themselves in the business of offering such services represents that they have adequate resources and equipment, material etc. in good working order and fully trained personnel capable of efficiently undertaking the operations and is ready, willing and able to carry out the said services for the Company as per Section- \_\_ attached herewith for this purpose.

WHEREAS, Company issued a firm Letter of Award No. \_\_\_\_\_ based on Offer No. \_\_\_\_\_ submitted by the Contractor against Company's Tender No. OIL/CCO/GEOL/GLOBAL/202/2007.

WHEREAS, Contractor has accepted the Company's Letter of Intent vide their letter No. \_\_\_\_\_.

All these aforesaid documents shall be deemed to form and be read and construed as part of this Contract. However, should there be any dispute arising out of interpretation of this contract in regard to the terms and conditions with those mentioned in Company's bidding document and subsequent letters including the Letter of Intent and Contractor's offer and their subsequent letters, the terms and conditions attached hereto shall prevail. Changes, additions or deletions to the terms of the contract shall be authorised solely by an amendment to the contract executed in the same manner as this contract.

NOW WHEREAS, in consideration of the mutual covenants and agreements hereinafter contained, it is hereby agreed as follows -

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the General Conditions of Contract referred to.

2. In addition to documents hereinabove, the following Sections attached herewith shall be deemed to form and be read and construed as part of this Contract viz.:

(a) Section-I indicating the General Conditions of Contract,

(b) Section-II indicating the Terms of Reference/Technical specifications and

(c) Section-III indicating the Schedule of Rates.

3. In consideration of the payments to be made by the Company to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Company to provide the Services and to remedy defects therein in conformity in all respect with the provisions of this Contract.

4. The Company hereby covenants to pay the Contractor in consideration of the provision of the Services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract.

IN WITNESS thereof, each party has executed this contract at Duliajan, Assam as of the date shown above.

Signed, Sealed and Delivered,

For and on behalf of Company  
(Oil India Limited)

For and on behalf of Contractor  
(M/s. \_\_\_\_\_)

Name:

Name:

Status:

Status:

In presence of

In presence of

1.

1.

2.

2.

**PROFORMA LETTER OF AUTHORITY**

TO

**HEAD (CONTRACTS)**

Oil India Ltd.,  
P.O. Duliajan - 786 602  
Assam, India

Sir,

Sub: OIL's Tender No. OIL/CCO/GEOL/GLOBAL/202/2007

We \_\_\_\_\_ confirm that Mr. \_\_\_\_\_ (Name and address) as authorised to represent us to Bid, negotiate and conclude the agreement on our behalf with you against Tender Invitation No. \_\_\_\_\_ for hiring of services for \_\_\_\_\_.

We confirm that we shall be bound by all and whatsoever our said representative shall commit.

Yours Faithfully,

**Authorised Person's Signature:** \_\_\_\_\_

**Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Seal of the Bidder:**

**Note:** This letter of authority shall be on printed letter head of the Bidder and shall be signed by a person competent and having the power of attorney (power of attorney shall be annexed) to bind such Bidder. If signed by a consortium, it shall be signed by members of the consortium.