



Oil India Limited
(A Govt. of India Enterprise)

P.O. BHUBANESWAR, DIST. KHURDA,
ORISSA, INDIA, PIN-751 022

Bay Exploration Project

FAX : (91) 674-2540926

TEL : (91) 674-2543472

Email: snsingh@rediffmail.com

Website: www.oilindia.nic.in

SECTION - I
Forwarding Letter

TENDER No. OIL/BEP/ONS/ENQ/F/09/068 FOR HIRING OF SERVICES FOR ACQUISITION AND PROCESSING OF 400 SQ. KM. (FULL FOLD) 3D SEISMIC DATA IN NELP-VI BLOCK KG-ONN-2004/1 IN EAST GODAVARI DISTRICT OF ANDHRA PRADESH & YANAM DISTRICT OF PUDUCHERRY, INDIA.

1.0 OIL INDIA LIMITED (OIL), a Government of India Enterprise, is a premier oil company engaged in exploration, production and transportation of crude oil & natural gas in different parts of India and abroad with its Headquarters at Duliajan, Assam. Its Bay Exploration Project is situated at Bhubaneswar, the State Capital of Orissa, India which is well connected by Air & Rail with the Airport and Railway Station at Bhubaneswar itself.

2.0 In connection with its operations, OIL invites International Competitive Bids (ICB) from competent and experienced (international) contractors for **HIRING OF SERVICES FOR ACQUISITION AND PROCESSING OF 400 SQ. KM. (FULL FOLD) 3D SEISMIC DATA IN NELP-VI BLOCK KG-ONN-2004/1 IN EAST GODAVARI DISTRICT OF ANDHRA PRADESH (511 SQKM) & YANAM DISTRICT OF PUDUCHERRY (38 SQKM), INDIA.**

One complete set of bid document covering OIL's tender for hiring of above services is being forwarded herewith. Please submit your most competitive bid 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/BEP/ONS/ENQ/F/09/068**
- (ii) Type Of Bid : Single Stage-Two Bid
- (iii) Tender Fee: Rs. 19,000.00 or US\$ 400.00 (Non-refundable),
- (iv) Sale Of Tender Document: 22-July-2009 to 3 Sep-2009,
- (v) BID CLOSING DATE & TIME: 04-Sep-2009 at 2-30 PM Hrs. (IST)
- (vi) Technical Bid Opening Date & Time: 04-Sep-2009 at 2-45 PM Hrs. (IST)
- (vii) Commercial Bid Opening Date & Time: Will be intimated to the eligible bidders nearer the time.

- (viii) **BID SUBMISSION PLACE** : **Head-Projects (BEP&KG)
Oil India Limited,
Bay Exploration Project,
IDCO Towers, 3rd Floor,
Bhubaneswar: 751 022,
Orissa (India)**
- (ix) **BID OPENING PLACE** : **Head-Projects (BEP&KG)
Oil India Limited,
Bay Exploration Project,
IDCO Towers, 3rd Floor,
Bhubaneswar: 751 022,
Orissa (India)**
- (x) **BID SECURITY AMOUNT** : **Rs. 50, 00,000 Or US\$ 100,000**
- (xi) **AMOUNT OF PERFORMANCE GUARANTEE** : **10 % of the total estimated contract value**
- (xii) **MOBILISATION TIME** : **Crew shall be mobilized within 90 days from the date of award of contract.**
- (xiii) **QUANTUM OF LIQUIDATED: DAMAGE FOR DEFAULT IN TIMELY MOBILISATION.** : **½ % of total contract value for delay per week or part thereof subject to maximum of 7½ %**
- (xiv) **PENALTY FOR DEFAULT IN TIMELY COMPLETION** : **10% of per SqKm of remaining quantum of Data acquisition beyond 8-months. For Processing ½% of total value for delay per week or part thereof subject to maximum of 7 ½ % beyond 6-months after acquisition.**

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

Thanking you,

**Yours faithfully,
OIL INDIA LIMITED**

**(S.N.Singh)
Head-Projects (BEP&KG)**

SECTION - II

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.

2.0 It is advisable that the bidder should carry out through reconnaissance survey of the areas for proper understanding and appreciation of its environmental and logistic issues before bidding.

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 (Section I) :
 - (i) Company's Tender No.
 - (ii) Bid closing date and time.
 - (ii) Bid opening date, time and place.
 - (iii) Bid submission place.
 - (iv) Bid opening place.
 - (vi) The amount of Bid Security.
 - (vii) The amount of performance guarantee.
 - (viii) Quantum of liquidated damages for default in timely mobilisation.
 - (ix) Penalty for default in Timely completion
- (b) Instruction to Bidders (Section II)
- (c) General Conditions of Contract (Section III)
- (d) Terms of Reference/Technical specification (Section IV)
- (e) Schedule of Rates (Section V)
- (f) Special Conditions of Contract (Section VI)
- (g) Bid Evaluation Criteria/Bid Rejection Criteria (BEC/BRC)- (Section VII)
- (h) Estimated CIF value of items at the time of import (Proforma -I).
- (i) Statement of Compliance (Proforma II).
- (j) Bid Form (Proforma II A).
- (k) The Performance Security Form (Proforma II B).
- (l) The Contract Form (Proforma II C).
- (m) The Bid Security Form (Proforma II D).
- (n) Proforma Letter of Authority (Proforma III)

2.1 The bidder is expected to examine all instructions, forms, terms and specifications in the Bidding Documents. Failure to furnish all information required in the Bidding Documents or submission of a bid not substantially

responsive to the Bidding Documents in every respect will be at the Bidder's risk & responsibility and may result in the rejection of its 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 Bidding Documents by the issuance of an Addendum.

3.2 The Addendum will be sent in writing or by Fax to all prospective Bidders to whom Company has sent 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 translated 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 and equipment specifications with catalogue, etc.
- (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 -II.**
- (v) **Proforma I** showing the items to be imported without the CIF values.

B. COMMERCIAL/PRICE BID

- (i) Bid Form, Schedule of Rates,
- (ii) Estimated CIF value as per **Proforma I.**

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

7.0 **BID PRICE:**

7.1 Unit prices must be quoted by the bidders 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 successful bidder under the Contract for which this Bidding 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:

8.1 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.

8.2 Indian bidders too can submit their bids in any currency (including Indian Rupees) and receive payment in such currencies on par with foreign bidders. However, currency once quoted will not be allowed to be changed.

9.0 DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY & QUALIFICATIONS

These are listed in Section VII.

10.0 BID SECURITY :

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 Bhubaneswar, Orissa.

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 after OIL's decision for short-listing of Parties for the purpose of Priced Bid opening.

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 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 180 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). 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 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 letter of authorizations (as per Proforma III) shall be indicated by written power of attorney accompanying the bid. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.

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 or persons 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 Schedule should not be put in the envelope containing the Technical Bid.**

Proforma I without the CIF values should be enclosed with the Technical bid and the same with the CIF values should be put in the Commercial 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 II**. 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 or in Person. 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

14.1 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 authorized to receive any commission. The rate of the commission should be indicated which will 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 :

15.1 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 "Forwarding 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 dispatched 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. Withdrawal of a bid during this interval shall result in the Bidder's forfeiture of its Bid Security.

18.0 BID OPENING AND EVALUATION

18.1 Company will open the Bids, including submission 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, an authorization letter from the bidder must be produced by the Bidder's representative at the time of bid opening. Unless this Letter is presented, the representative will not be allowed to attend the bid opening. The Bidder's representatives who are allowed to attend the bid opening shall sign a register evidencing their attendance. Only one representative against each bid will be allowed to attend.

18.2 Bid for which an acceptable notice of withdrawal has been received pursuant to para 17.0 shall not be opened. Company will examine bids to determine whether they are complete, whether requisite Bid Securities have been furnished, whether documents have been properly signed and whether the bids are generally in order.

18.3 At bid opening, Company will announce the Bidder's names, written notifications of bid modifications or withdrawal, if any, the presence of requisite Bid Security 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 assist in the 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 or email or fax and no change in the price or substance of the bid shall be sought, offered or permitted.

18.6 Prior to the detailed evaluation, Company will determine the substantial responsiveness of each bid to the requirement of 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 or reservation. A material deviation or reservation is one which affects in any way substantial way the scope, quality, or performance of work, or which limits in any substantial way, in-consistent way with the bidding documents, the Company's right or the bidder's obligations under the contract, and the rectification of which deviation or reservation would affect unfairly the competitive position of other bidders presenting substantial responsive bids. 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 in a bid, which 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:** The Company will evaluate and compare the bids as per Section-VII of the bidding documents.

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 18.0 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:

24.1 The Company will award the Contract to the successful Bidder 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 successful Bidder in writing by registered letter or by cable or telex or fax (to be confirmed in writing by registered / couriered letter) that its 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 its Bid has been accepted, the Company will either call the successful bidder for signing of the agreement or send the Contract Form provided in the Bidding Documents, along with the General & Special Conditions of Contract, Technical Specifications, Schedule of rates incorporating all agreements between the parties.

27.2 Within 30 days of receipt of the final contract document, the successful Bidder shall sign and date the contract and return it 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. The performance security shall be payable to Company as compensation for any loss resulting from Contractor's failure to fulfill its obligations under the Contract.

28.2 The performance security specified above must be valid for one year (plus 3 months to lodge claim, if any) after the date of expiry of the tenure of the contract to cover the warranty obligations indicated in para 6.0 of Section III

hereof. The same will be discharged by company not later than 30 days following its expiry.

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 and forfeiture of the Bid Security. 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 LIQUIDATED DAMAGES FOR DEFAULT IN TIMELY MOBILISATION

29.1 In the event of the Contractor's default in timely mobilization for commencement of field survey and data acquisition operations within the agreed period as stipulated in the contract, the Contractor shall be liable to pay liquidated damages @ 0.5% of the total evaluated contract cost for delay of each week or part thereof, subject to maximum of 7.5%. The Liquidated damages will be reckoned from the date after expiry of scheduled mobilization period till the date of actual commencement of contract as defined in Clause No. 2.0 of Section-III of the contract document. The Company also reserves the right to cancel the contract without any compensation whatsoever in case of Contractor's failure to mobilize and commence operation within the stipulated period.

30.0 **CREDIT FACILITY**: Bidders should indicate clearly in the bid about availability of any credit facility inclusive of Government to Government credits indicating the applicable terms and conditions of such credit.

31.0 MOBILISATION ADVANCE PAYMENT:

31.1 Request for advance payment shall not be normally considered; however, depending on the merit and at the discretion of the company, advance against mobilization 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.

31.2 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.

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

31.4 In the event of any extension to the mobilization 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.

32.0 PENALTY FOR DEFAULT IN TIMELY COMPLETION:

32.1 The entire work of data acquisition of 400 Sqkm (Full Fold) is to be completed in 8 (Eight) -operating moths only and the processing job to be completed in 6-months (total duration 14-months). In case the Contractor fails to complete the tendered volume of work of acquisition of 400 SqKm (Full Fold) in 8 (Eight) -operating months, the Contractor has to complete the remaining volume of work with a penalty of 10% per SqKm rate which will be levied for the remaining quantity of data acquired beyond the stipulated time period.

32.2 Further, the Contractor shall be liable to pay liquidated damages @ 0.5% of the total evaluated contract cost for delay of each week or part thereof, subject to maximum of 7.5% in the event of Contractor's default in completion of Data Processing jobs within the agreed schedule of completion.

&&&&&

SECTION III

GENERAL CONDITIONS OF CONTRACT

1.0 DEFINITIONS:

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

- (a) "Contract" means agreement entered into between Company and contractor, as recorded in the contract Form 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 its contractual obligations;
- (c) "Work" means each and every activity required for the successful performance of the services described in Section IV, the Terms of Reference;
- (d) "Company" means Oil India Limited (OIL);
- (e) "Contractor" means the individual or firm or Body incorporated performing the work under this Contract;
- (f) "Contractor's Personnel" means the personnel to be provided by the contractor to provide services as per the contract;
- (g) "Company's Personnel" means the personnel to be provided by OIL or OIL's contractor (other than the Contractor executing this Contract). The company representatives of OIL are also included in the Company's personnel.

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

2.1 The contract shall become effective as of the date company notifies contractor in writing that it has been awarded the contract. Such date of notification of award of Contract will be the Effective Date of Contract

2.2 The mobilization of all equipment, all personnel etc. should be completed by Contractor within 90 days of the effective date of contract. Within 90 days, Contractor's equipment and manpower be placed at the designated location and would be in readiness to commence the Work as envisaged under the Contract. Mobilization shall be deemed to be completed when all equipments are fully tested, calibrated and put into operation and necessary experimental work conducted as specified in scope of work and first regular production shot is taken and accepted by the company.

2.3 The date on which the mobilization is completed in all respects is treated as date of commencement of contract. The duration of the contract, to be reckoned from the date of commencement of contract, shall be for a period as detailed in clause 6.0 of Section IV.

3.0 GENERAL OBLIGATIONS OF CONTRACTOR :

Contractor shall, in accordance with and subject to the terms and conditions of this Contract:

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

3.2 Except as otherwise provided in the Terms of Reference and the special Conditions of the contract, provide all labor as required to perform the work.

3.3 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.

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

3.5 Contractor shall give or provide all necessary supervision during the performance of the services and as long thereafter as company may consider necessary for the proper fulfilling of contractor's obligations under the contract.

4.0 GENERAL OBLIGATIONS OF THE COMPANY:

Company shall, in accordance with and subject to the terms and conditions of this contract:

4.1 Pay Contractor in accordance with terms and conditions of 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 required of Company by the terms of this contract.

5.0 PERSONNEL TO BE DEPLOYED BY THE CONTRACTOR :

5.1 Contractor warrants that it shall provide competent, qualified and sufficiently experienced personnel to perform the work correctly and efficiently.

5.2 The Contractor should ensure that their personnel observe applicable company and statutory safety requirement. Upon Company's written request, contractor, entirely at its own expense, shall remove immediately; any personnel

of the Contractor determined by the Company to be unsuitable and shall promptly replace such personnel with personnel acceptable to the Company.

5.3 The Contractor shall be solely responsible throughout the period of the contract for providing all requirements of their personnel including but not limited to, their transportation to & fro the Base Camp (around Kakinada / Yanam in the operational area)/ field site, en-route/ local boarding, lodging & medical attention etc. Company shall have no responsibility or liability in this regard.

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

6.0 WARRANTY AND REMEDY OF DEFECTS :

6.1 Contractor warrants that it shall perform the work in a professional manner and in accordance with the highest degree of quality, efficiency, and with the state of the art technology/ inspection services and in conformity with all specifications, standards and drawings set forth or referred to in the Technical Specifications. They should comply with the instructions and guidance, which Company may give to the Contractor from time to time.

6.2 Should Company discover at any time during the execution of the Contract or within one year after completion of the operations that the work carried out by the contractor does not conform to the foregoing warranty, Contractor shall after receipt of notice from Company, promptly perform 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 carried out by others and charge the cost thereof to Contractor, which the contractor must pay promptly. In case contractor fails to perform remedial work, 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 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 Contractor shall be responsible for payment of personal taxes, if any, for all the personnel deployed in India.

8.3 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 from them. Contractor shall be responsible for preparing and filing the return of income etc. within the prescribed time limit to the appropriate authority.

8.4 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.

8.5 Tax clearance certificate for personnel 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.

8.6 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.

8.7 Corporate and personnel 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, VATs, etc. on purchases and sales made by contractor (except customs duty) shall be borne by the contractor.

9.0 INSURANCE :

9.1 The contractor shall arrange insurance to cover all risks in respect of their personnel, materials and equipment belonging to the contractor or its subcontractor during the currency of the contract.

9.2 Contractor shall at all time 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 this contract.
- d) Contractor's equipment used for execution of the work hereunder shall have an insurance cover with a suitable limit (as per international standards).
- 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 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 its insurance policies covering the risks mentioned above.

9.6 If any of the above policies expire or are cancelled during the term of this 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-contractor to provide such of the foregoing insurance coverage as Contractor is obliged to provide under this Contract and inform the Company about the coverage prior to the commencement of agreements with its sub-contractors.

9.8 All insurance taken out by Contractor or their sub-contractor 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 this 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 affected by written order by the Company.

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 V). 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 Change Order, Contractor shall nevertheless perform the work as changed, and the parties will resolve the dispute in accordance with Clause 13 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 required to be performed by them under the contract, the relative obligation of the party affected by such 'Force Majeure' will stand suspended as provided herein. The word 'Force Majeure' as employed herein shall mean acts 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 kind herein enumerated or otherwise which are not within the control of the party to the contract and which renders 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 then **force majeure day rate as indicated in the schedule of rate** shall apply for the first ten (10) days. Either party will have the right to terminate the contract if such 'force majeure' condition continues 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 after expiry of ten (10) days period unless otherwise agreed to. Time for performance of the relative obligation suspended by the 'Force Majeure' shall then stand extended by the period for which such cause lasts.

12.0 TERMINATION:

12.1 **TERMINATION ON EXPIRY OF THE TERMS (DURATION):** The contract shall be deemed to have been automatically terminated on completion of acquisition and processing of 400 Sq. Km. (Full Fold) of 3D seismic data or expiry of duration of the Contract or extension, if any, there of, whichever is earlier.

12.2 **TERMINATION ON ACCOUNT OF FORCE MAJEURE:** Either party shall have the right to terminate the Contract on account of Force Majeure as set forth in para 11.0 above.

12.3 **TERMINATION ON ACCOUNT OF INSOLVENCY:** In the event that the Contractor at any time during the term of the Contract, becomes insolvent or makes a voluntary assignment of its assets for the benefit of creditors or is adjudged bankrupt, then the Company shall, by a notice in writing have the right to terminate the Contract and all the Contractor's rights and privileges hereunder, shall stand terminated forthwith.

12.4 **TERMINATION FOR UNSATISFACTORY PERFORMANCE:** If the Company considers that, the performance of the Contractor is unsatisfactory, or not up to the expected standard, the Company shall notify the Contractor in writing and specify in details the cause of the dissatisfaction. The Company shall have the option to terminate the Contract by giving 15 days notice in writing to the Contractor, if Contractor fails to comply with the requisitions contained in the said written notice issued by the Company,

12.5 **TERMINATION DUE TO CHANGE OF OWNERSHIP & ASSIGNMENT:** In case the Contractor's rights and / or obligations under the Contract and/or the Contractor's rights, title and interest to the equipment/material, are transferred or assigned without the Company's consent, the Company may at its absolute discretion, terminate the Contract.

12.6 If at any time during the term of the Contract, breakdown of Contractor's equipment results in Contractor being unable to perform their obligations hereunder for a period of 15 successive days, Company at its option may terminate this Contract in its entirety without any further right or obligation on the part of the Company except for the payment of money then due. No notice shall be served by the Company under the condition stated above.

12.7 Notwithstanding any provisions herein to the contrary, the Contract may be terminated at any time by the company on giving 15 (fifteen) days written

notice to the Contractor due to any other reason not covered under the above clause from 12.1 to 12.6 and in the event of such termination the Company shall not be liable to pay any cost or damage to the Contractor except for payment for services as per the Contract up to the date of termination.

12.8 **CONSEQUENCES OF TERMINATION:** In all cases of termination herein set forth, the obligation of the Company to pay for Services as per the Contract shall be limited to the period up to the date of termination. Notwithstanding the termination of the Contract, the parties shall continue to be bound by the provisions of the Contract that reasonably require some action or forbearance after such termination.

12.9 Upon termination of the Contract, Contractor shall return to Company all of Company's items, which are at the time in Contractor's possession.

12.10 In the event of termination of contract, Company will issue 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 demobilize their personnel & materials.

13.0 **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 Bhubaneswar, Orissa. The award made in pursuance thereof shall be binding on the parties.

14.0 **NOTICES :**

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

Company	Contractor
Head-Projects (BEP&KG)
Oil India Limited,
Bay Exploration Project,
IDCO Towers, 3 rd Floor,
Bhubaneswar: 751 022,
Orissa (India)

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

15.0 **SUBCONTRACTING:** Contractor shall not subcontract or assign, in whole or in part, its obligations to perform under this contract, except with Company's prior written consent.

16.0 MISCELLANEOUS PROVISIONS :

16.1 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.

16.2 During the tenure of the Contract, Contractor shall keep the site where the services are being performed reasonably free from all unnecessary obstruction and shall store or dispose of any equipment and surplus materials and clear away and remove from the site any wreckage, rubbish or temporary works no longer required. On the completion of the services, Contractor shall clear away and remove from the site any surplus materials, rubbish or temporary works of every kind and leave the whole of the site clean and in workmanlike condition to the satisfaction of the Company.

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

17.0 LIQUIDATED DAMAGES FOR DEFAULT IN TIMELY MOBILISATION:

In the event of the Contractor's default in timely mobilisation for commencement of operation within the stipulated period, the Contractor shall be liable to pay liquidated damages at the rate of 0.5% of the total estimated contract value of data acquisition phase for delay of each week or part thereof, 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 the contract as defined in clause No.2.0 of Section - III. The Company also reserves the right to cancel the contract without any compensation whatsoever in case of failure to mobilize and commence operation within the stipulated period.

18.0 **PERFORMANCE SECURITY:**

The Contractor has furnished to Company a Bank Guarantee No. _____ dated _____ issued by _____ for _____ (being 10% of estimated Contract Price) valid till _____ towards performance security. 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 validity of the bank guarantee shall be suitably extended by the Contractor. The bank guarantee will be discharged by Company not later than 30 days following its expiry.

&&&&&

SECTION- IV

TERMS OF REFERENCE / TECHNICAL SPECIFICATIONS

(ACQUISITION & PROCESSING OF 400 SQKM OF 3D SEISMIC DATA IN NELP-VI BLOCK KG-ONN-2004/1)

1.0 Introduction:

1.1 OIL INDIA LIMITED (A Govt. of India Enterprise) herein after called as “The Company” desires to carry out acquisition and processing of 400 Sq.Km (Full-fold) of 3-D seismic data using state-of-the-art equipment in its NELP-VI Block KG-ONN-2004/1 (a part of Krishna-Godavari (KG) Basin), constituting a total PEL area of 549 SqKM (511 SqKm in East Godavari District of Andhra Pradesh) and 38 SqKm in the District of Yanam in Puducherry (UT), India. This note establishes the scope and schedule for the work to be performed by the Contractor and describes references to the specifications, instructions, standards and other documents including specifications for any materials, tools or equipment which Contractor shall satisfy or adhere to in the performance of the work.

2.0 Scope of Work:

2.1 In general, the entire block KG-ONN-2004/1 is thickly populated with villages and towns. About 20 % of the area is covered by the river Godavari and about 30% of the area is covered with coastal swamps & forests. The entire Block has alluvial covers and a considerable portion of the Block is covered with paddy fields, coconut grooves, sugar cane cultivation and fish ponds etc. The Contractor shall bring all the necessary and appropriate geophysical hardware, supporting ancillary equipments and transport facilities (including but not limited to facilities such as marsh buggies, all terrain vehicle , boats etc. among others to name a few as may be required in marsh areas, water bodies and riverine / transition zones) required to enable uninterrupted quality driven geophysical activities for covering the diverse topography of the operational areas comprising of villages with dwelling houses, roads, swamps, mudflats tidal creeks, streams, rivers, plantations, forest & agricultural lands, sandy beaches etc. to name a few. The techniques, tools & equipment used to cover inaccessible and ecologically sensitive areas (fisheries, swamps, forests, riverine zones etc.) should be of the latest generation and should afford high maneuverability in deployment of the acquisition spread & acquiring high quality seismic data in an eco-friendly manner.

Particular attention needs to be given to riverine zones in the area of operation which may be prone to flooding conditions during time of heavy precipitation. Proper equipments and other facilities to circumvent operational and logistical difficulties in crossing flood plains and the river, during time of higher than normal water levels, must be at the contractor’s disposal , in case of such an

eventuality. No additional charges will be entertained by the company to meet such provisions.

2.2 The Contractor shall with their own personnel and equipment carry out Differential Global Positioning System based survey, topographic survey, LVL and Uphole surveys, seismic recording and quality control of 3-D seismic surveys in the Block.

2.3 The Contractor shall with their own personnel and equipment shall carry out routine 3D seismic data processing of the above acquired 3D data.

2.4 The Contractor shall with their own personnel and equipment carry out special processing required of the above data volume.

2.5 The Contractor shall deploy the equipment, computer hardware and software of state-of-art technology for performing the services referred to in the contract and shall be fully responsible for the execution of seismic data acquisition and processing as per the plan that will be provided by the Company.

2.6 The Contractor shall deploy latest generation of seismic data acquisition system with delta-sigma technology and facilities of recording minimum 2560 channels per shot record. Contractor must have enough field electronics to lay on the ground so that the Tendered quantum of work can be completed in scheduled time.

Location of the Block: KG-ONN-2004/1



(Block co-ordinates are given in Table below)

Table: Coordinated of block (above Fig.refers)

Points	Longitude			Latitude		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
A	82	18	34.82	16	51	10.84
B	82	16	15.20	16	50	58.64
C	82	13	22.00	16	50	41.00
D	82	13	24.00	16	46	48.00
E	82	12	24.00	16	46	48.00
F	82	12	24.00	16	45	31.50
G	82	10	54.00	16	45	31.50

Points	Longitude			Latitude		
	Deg.	Min.	Sec.	Deg.	Min.	Sec.
H	82	10	54.00	16	44	51.00
I	82	6	28.00	16	44	51.00
J	82	6	28.00	16	43	36.00
K	82	4	24.00	16	43	36.00
L	82	4	24.00	16	42	16.00
M	82	2	18.00	16	42	16.00
N	82	2	18.00	16	39	24.00
O	82	14	46.50	16	39	24.00
P	82	14	46.50	16	33	2.00
Q	82	16	50.30	16	33	16.45
R	82	21	54.13	16	48	29.19
S	82	21	30.34	16	48	54.76
(Coastline from point Q to point R)						
(Coastline from point S to point A)						

2.7 The Contractor shall deploy latest processing system including one of the leading seismic data processing packages presently used globally and experienced experts for processing / analysis of the 3D seismic data acquired under this contract.

2.8 The areas of the Block is to be covered by optimal Full Fold data with proper geophysical attributes. For the purpose of the contract, area of coverage that will be quantified in Sq. Km. refers to the surface area in which every bin will have full-fold sub-surface coverage (64-Fold) with proper geophysical attributes like bin-size, offset and azimuth distributions between and within bins. The northern, southern, western boundary of the Block (landward) will be covered with full fold (64 fold) coverage where as the 3D survey would extend up to the eastern boundary (along the coastline) so as to cover as far as possible by lying receivers, shooting and data recording up to the coast line. The data is required to be noise free, amplitude preserved, AVO friendly with higher bandwidth. The final data must be corrected for Phase and are to be provided as per the normal (SEG) polarity. The data will be processed and the expected standards are given in the clauses below.

2.9 Company reserves the option to decrease/increase both in terms of time and volume for 3D data acquisition and processing on quantum of work of 400 sqkm by +/- 25%. In case of decrease in quantum, it will be obligatory on the part of

the Bidder to carry out the job at the original contract rate, terms & conditions. In case of increase in quantum, the additional job has to be carried out on a mutually agreed rates which should not be higher than the original contract rate and the terms & conditions will remain the same as this contract.

2.10 The bidder will use explosive (on land) as well as other suitable energy source as deemed fit / adequate like airguns (array) (in water bodies). Both explosive and airguns (array) will be used as energy source and geophone, marsh phones, hydrophone etc. will be used as receiver, may be in the same spread/swath. The bidder will provide both raw data as well as phase matched data after necessary correction/conditioning of raw data.

3.0 Objectives of the Survey:

3.1 An area of about 400 sq. km. (Full Fold) in the NELP-VI Block KG-ONN-2004/1 in East Godavari district (511 SqKm) of Andhra Pradesh and in the district of Yanam (38 SqKm), Puducherry (UT), India shall be covered by 3-D seismic survey. The approximate location of the Block is shown herewith (Para 2.6 above).

3.2 The block is located in the prolific hydrocarbon producing areas of Andhra Pradesh. There has been the indication of massive gas deposits in the offshore / Deep Water Blocks in the east of the Block. In the block, oil and gas reservoirs are expected in a number of zones ranging from Miocene to Cretaceous / Permian-Trassic age. These are at depth ranges varying from 1500-5000 meters respectively. The objective of the survey & processing is to delineate these different reservoirs and identify structural and stratigraphic and prospects in the areas ranging from 1500 m to 5000 m.

3.3 The existing data indicates a maximum dip of about 8 to 12 degree in the area.

3.4 Brief Geology of the area:

The Krishna-Godavari basin is a peri-cratonic basin with areal extent of approximately 45,000 km² (both onshore & offshore), located in the central part of the eastern passive continental margin of India. However, the basin extends into deeper water and covers a much larger area. Krishna and Godavari are the two major river systems, which drain the area and discharge in the Bay of Bengal and covers the deltaic and interdeltaic areas of Krishna and Godavari rivers and extends into the offshore. This stretch of sedimentary tract contains a vast range of geologic settings, such as costal basin, delta, shelf-slope apron, deep-sea channel, and deepwater fan complex.

Exploratory drilling of more than 350 wells in more than 160 structures has resulted in the discovery of 42 oil and gas bearing structures. Good source rocks are known from sequences ranging in age from Permian-Carboniferous to early Miocene. Because the reservoir sand bodies have limited lateral variation,

understanding the stratigraphy and depositional sub environments in different sequences is essential to decipher the favorable locales for reservoir sands. Tilted fault blocks, growth faults, and related rollover anticlines provide the structural traps. Commercial accumulation of hydrocarbons occurs in sediments from the Permian to as young as the Pliocene. Estimated resources in the basin are around 2000 million tons of oil and oil-equivalent gas. The reservoirs are in sediments of all ages, Permian to Pliocene.

Today, the KG basin has emerged as one of the frontier areas for future hydrocarbon exploration after the multi-trillion cubic feet super giant gas discovery in the recent years. The basin's characteristic feature is its en-echelon horst and graben system which is filled with a thick pile of sediments of Permian-to Recent age. The structural grain of the basin is northeast-southwest. Exposures of Upper Cretaceous sedimentary rocks demarcate the basin margin toward the north west, where the northwest-southeast-trending Pranahita-Godavari graben abuts the basin.

The basin represents a depositional setting of a well defined shelf to shelf-edge delta to deepwater with the major delta having a thick, argillaceous facies that has prograded seaward since the Late Cretaceous which is a hydrocarbon exploration target. It is important to distinguish the hydrocarbon system and play types for both rift-related and other structural styles using high-quality seismic imaging information which may decipher a large variety of play types (e.g., channel-levee complex, lobes, synrift structural closures, and wedge-outs against basement highs) as exploration targets. The gradational facies pattern, sequence boundary, transgressive surface, maximum flooding surface, channel architecture, etc. needs to be identified & mapped for developing the concept.

Preliminary reconstruction of the evolutionary stages of this basin suggests that the hot spot (Marion ?) with its trace located at the OCB represents the earliest stage of the breakup of east coast of India in the late Jurassic (126 Ma), although the relation between this hotspot and the two cross trends on either side remains unresolved. The breakup was associated with rift phase volcanism, as evidenced by the inferred dyke intrusions in the Nizampatnam bay in the southern part of the basin. The Pranahita Godavari Gondwana graben formed due to this split, pull apart and the subsequent down warping of the eastern continental margin, appears to be much deeper and wider in the offshore. The NE-SW ridges and the depressions of the onshore basin are a consequence of the post-rift vertical tectonics associated with the evolution of this passive margin. The regional basement horsts (Bapatla, Tanuku, Kaza-Kaikalur, Kavali, Nellore and Nayudupeta formed by fault-controlled ridges.) divide Krishna-Godavari basin into several sub-basins such as Pennar, Krishna, West Godavari, and East Godavari. These sub-basins contain thick Cretaceous and older sediments above the Archaean basement, with several intervening unconformities. The basin contains a 4-7-km-thick sediment column, ranging in age from Late Carboniferous to Holocene. Above the basement ridges, thin sediments are found. Until the Jurassic period, sediments were deposited in the rift valley and in topographic lows. This sequence is completely overlain by a Lower Cretaceous, transgressive sedimentary wedge. Later, continued delta

progradation characterized basin sedimentation. The present area of study falls in the onshore part of the KG basin.

4.0 Scope of Services for the Proposed 3D Survey:

4.1 Fixing of Reference Points: Before starting the survey on the proposed blocks, the Contractor shall fix adequate number of bench marks / reference points at different locations around the blocks, as asked by the Company, for precision driven positioning control of the survey work using Static Differential GPS methods/techniques by deploying state-of-the-art Differential Global Positioning System (DGPS) with L1 and L2 modes.

4.2 The company and the Contractor shall determine the proposed location of the DGPS surveying control points/network prior to their placement in the field on the pre-plan Base map of the areas of operation. The proposed locations need to be identified by the Contractor on the ground and shown to the company authorized representatives. The DGPS control point sites ultimately chosen thereof and approved by the company shall be suitably cleared by the Contractor to allow a clear, unobstructed view of the sky for good satellite signal reception. These points will be established by simultaneous Static Differential GPS observations and shall be post processed at the Base Camp using industry standard software. The points observed in the field having data pairs with individual Geometric Dilution of Precision greater than 4 or where two satellites occupy the same quadrant in the sky, or where the satellite elevations are less than 15° from the horizontal shall not be regarded as “good fixes” and should be rejected before data reduction. The reference points established should be sufficiently monumented / archived as permanent structures. Such labeling has to be certified by the company representatives. The Contractor will also fix bench marks/ reference pillars along roads for tying up during surveying. These bench marks may be fixed using DGPS (using L1 and L2 modes).

4.3 The Contractor must supply accurate co-ordinates (WGS-84 and UTM/Lambert) of these points along with necessary diagrams for locating the same in future. The transformation of the co-ordinates from the WGS84 Datum to the local Datum shall be meticulously tested by the Contractor using a set of co-ordinates provided on both the geodetic systems, by the Company. Geoidal elevation required for conversion from WGS84 Datum to Local datum shall be computed by the contractor using appropriate geoidal model. The geoidal model used and all the relevant details that specify its effectiveness shall be provided to the Company. The digital elevation model of the benchmarks /reference points established should be constructed and provided to the company.

4.4 In total about 350 nos. of reference points are required to be fixed covering the Block and the surrounding areas. The Contractor shall fix additional benchmarks / reference points, if required. The exact number of points over and above the minimum and their locations will be decided by the Company.

4.5 For all the reference points mentioned in 4.1 and 4.3 above, pillars with proper engravings are need to be fixed in such a way that they serve as permanent bench marks with proper engravings. The permanent bench marks shall consist of galvanized capped filled iron pillar, 10 centimeters in diameter with the name of the reference point (e.g. KG-OIL-100) clearly welded at the top in character 7.5 centimeters high. The pillars should be firmly fixed (set in concrete mixed with a minimum of one half sack of cement per benchmark) to a depth of 3^{1/2} feet in to the ground with concrete cement. The pillar should be of sufficient length in order that it remains secure and visible for an indeterminable period and has 1.5 meters above the water or ground-level. The permanent benchmark shall be painted in red with its welded number outlined in white paint. The permanent bench mark shall have 30 centimeters cross bars at the bottom to avoid being pulled out. The contractor is responsible for the manufacture and construction of these permanent bench marks and for ensuring that duplicate and/or missing permanent bench mark number do not occur.

4.6 The survey tolerance has to be checked (based on simulated line diagram digital data and hard copy plots to be provided by the Contractor), agreed and approved by Company prior to commencement of shooting in each Swath. Any re-survey and re-pegging, if required, will be carried out by the Contractor at his own cost & responsibility.

5.0 METHOD OF WORK:

A. SEISMIC DATA ACQUISITION

5.1 The Contractor shall carry out 3-D seismic surveys by deploying latest seismic survey equipment with delta-sigma technology (as given in Annexure II). The detailed Technical Specifications of all the equipment the bidder proposes to deploy against this tender should be clearly indicated in the technical bid (as given in APPENDIX-I).

5.2 The data should be recorded **3592E/DLT/LTO-3** tape in SEG D/or SEG Y Demultiplexed format with sampling rate of 2 ms. The data should be recorded in two copies each in at least two media out of the aforesaid three media. Additionally the seismic data recorded in the operational area should compulsorily be copied /recorded offline on a continual basis at the Base camp using a standard copying software (data integrity must be maintained during copying) on one number of Network Attached Storage (NAS) Devices or equivalent with RAID 1 configuration having a data storage capacity of a minimum of 360 GB or more.

5.3 The Contractor shall use the following basic main field acquisition parameters for the seismic survey in KG-ONN-2004/1 Block in East Godavari District of Andhra Pradesh (511 SqKm) and 38 SqKm in Yanam District of Puducherry :

Basic main field acquisition parameters for the 3D seismic survey

Group / Receiver Interval	: 60 m
Receiver Line Interval	: 540 m
Receiver Geophone/station	: 12 (1 in case of hydrophone)
Number of Receiver Line	: 16
Active channel per Line	: 160
Total live channel per shot	: 2560
Source Interval	: 60 m
Source Line Interval	: 600m
Shothole depth (while loading)	: About 20 m (loading depth) in case of single hole otherwise pattern hole of 3 holes of 10 m each(Loading depth).
Bin Size	: 30 m x 30 m
Source	: Explosives and airguns (array)
Sampling rate	: 2 ms
Record length	: 7 secs.
Inline offset	: 4770 m
Crossline offset- min	: 3780 m
Largest Minimum offset- one bin offset	: 765 m
At this mute distance at least four fold is reached	: 1364 m
Largest Maximum offset- one bin offset	: 6458 m
Inline Fold	: 8
X line fold	: 8
Nominal Fold	: 64
Source Line Direction	: Orthogonal (240 degree)
Receiver line bearing	: NNW-SSE (330 degree)
Aspect Ratio	: 0.90

Note:

xline dimension of patch = # of Receiver lines * Receiver line interval=16 x 540= 8640m
inline dimension of the patch= # of Receiver stations * Receiver interval =160x60=9600m
Aspect Ratio xline dimension of patch / inline dimension of patch = 8640m/9600m=0.9

To be shot with single line roll.

Note:

- i. Company would prefer a single hole of 20 Mts. (loading depth) than a pattern hole of 3 holes. Pattern holes will be allowed only if single hole of 20 m is not possible due to subsurface conditions and the company representative is convinced. However, the same will be decided by company representative.
- ii. As mentioned, about 20% of the area is covered by the River Godavari and the eastern boundary of the block is shoreline. The contractor must have all the aquatic/transition zone data acquisition tools, equipment, transport & accessories etc. and acquire high quality data meeting the acquisition parameter in this type of logistics.

- iii. Contractor must visit the area of operation prior to bidding to be fully aware and understand the topography, job involvement and logistics including but not limited to environmental issues.

5.4. The Company desires to have symmetric sampling of offsets in each bin as far as possible. The data must have wide azimuth distribution at the offsets contributing to the primary and the secondary targets. The Contractor needs to perform detailed modeling/ ray-tracing at different parts of the block and submit their observations & suggestions to the Company. The work in the block will only start once Company is satisfied with the parameters and intimates the Contractor about the same in writing. Contractor should take actions to cover swampy areas and streams as required.

5.5 The Contractor shall carry out line survey using latest equipment such as DGPS, total stations with an accuracy of 0.5m or less from planned positions. The survey tolerance has to be checked (based on line diagram and digital data provided by the Contractor), agreed upon and approved by Company prior to commencement of shooting of each swath. Any resurvey work, if required, will be carried out at Contractor's own cost.

5.6 The Contractor shall carry out shallow refraction or LVL and Uphole surveys in acquisition area along trace lines. The LVL survey should be done at a rate of one in two sq km area where as the Up-hole surveys are to be done at a rate of one in four sqkm area along the trace lines in the normal areas including the water covered areas upto 2 m water depth. The Up-hole survey should be carried out up to a depth of about 60 -70 meters. The LVL/ Uphole recording equipment should be capable of recording a minimum of 24 channels with 0.1ms sampling interval. In areas where the surface logistic does not allow shooting LVL/ Uphole profile at the specified location, the contractor will attempt to recover the same from a closest possible location.

5.7 The Contractor shall carry out interpretation of LVL and Uphole data and subsequent computation of statics. The tomography-based technique should also be used for the interpretation of LVL and Uphole data.

5.8 The contractor should have a full fledged 3D Field QC Processing system capable of checking the 3D Geometry and QC processing of acquired data capable of generating 3D stacks in any inline, cross line and any random line.

B. SEISMIC DATA PROCESSING

5.9 The Contractor shall carry out basic and special processing of the data acquired under this contract. The Contractor shall use state-of-art computer system with internationally used software which will be capable of carrying out pre-stack 3D time and depth migrations & experts having adequate experience in carrying out similar jobs.

5.10 The objectives of seismic data processing are to provide adequate outputs for delineation of the sand / reservoir bodies besides structural interpretation. Primarily, the data is required to be processed for structural / stratigraphic interpretation and reservoir delineation/ characterization.

5.11 The following is the tentative processing sequence is envisaged for Basic Processing of the above acquired 3D seismic data. However, the actual sequence will be determined after completion of test processing in consultation with Company representatives. It is also envisaged that the data will be processed for preserved / true amplitudes.

- Seismic data Load
- Resample at 4 ms with anti-alias filtering
- Field Survey Navigation Load
- Navigation QC
- Geometry Preparation and Seismic / Navigation data Merge
- CMP binning
- Noise filtering on shot records
- Low cut filtering : 5Hz , 18dB/Oct
- Trace editing
 - Filtering for data balancing of the acquisition instrument spectrum
 - Discard noise traces
 - Reverse polarity correction if any
 - Despiking
- Statics correction
- Calculation and Application of Refraction statics in combination with shot-hole and LVL/Up-hole data
- Q-compensation.
- True Amplitude Recovery
- Deconvolution (Preferably surface consistent or in Tau -P domain)
- Surface Consistent amplitude scaling
- Primary Velocity Analysis at 2 X 2 km
- Residual statics and NMO correction
- Second pass Velocity Analysis at 1 X 1 km
- Residual statics and NMO correction
- FK filter

- Tau-p filter
- Migration velocity analysis at 500 X 500 m interval (minimum 3 passes)
- Pre-STM
- Stacking
- Spectral Balancing
- Deconvolution (if required)
- Time Variant Filtering
- Post Stack Depth Migration.
- Filtering if required
- A set of Post stack Data to be provided in Zero Phase.

5.12 Some additional processing sequences may be applied to the data, depending on the requirement with permission from Company. The list of such processors and the quantum of data on which the processor may be applied will be provided by the Company.

6.0 Period of Contract:

6.1 The seismic data acquisition phase under this Contract is planned to commence after the monsoon break. The period of Contract for acquiring, processing and submission of reports with relevant maps (with proper attributes) for 400 Sq.Km (Full Fold) of 3D data in the Block shall be 14 months by deploying one suitable crew (8 operating months for acquisition + 6 months for processing), excluding mobilization and demobilization periods in both the cases. The areas where the work is planned have monsoon generally from June-July to August/September, each year. The acquisition work, if any, will be required to be suspended during monsoon breaks. During the monsoon break, the Contractor will have to keep their equipment and a minimum manpower (to be decided by the contractor) in the camp for safe keeping of their equipment, tools etc. No stand-by or any separate charges will be payable by OIL during monsoon break to the Contractor. The entire watch & ward services during this period will be at the contractor's cost & responsibility.

6.2 The seismic data acquisition will commence from south-eastern side of the block. The contractor will complete the acquisition of 150 SqKm (Full Fold) of data in a continuous pattern from south-east side of the block (to be defined by the company) within first 3-months and hand over the data with all supporting documents to their processing center while the acquisition of remaining volume of data would continue without any break. This 150 SqKm (Full Fold) has to be processed by next 3-months and must be handed over to company for necessary interpretation.

6.3 The period of Contract referred to in para 6.1 above are inclusive of national holidays, bad weather days, experimental work days, camp shift days and production loss due to equipment failure or any other reasons under Contractor's control.

6.4 Contractor shall put all out effort to complete the entire work of 400 sqkm (Full Fold) in 8 (Eight) operating months only,, excluding monsoon break, if any. In case, the Contractor fails to complete the tendered volume of work in 8 (Eight) operating months, the Contractor has to complete the remaining tendered volume of work with a penalty of 10% of the per Sqkm rate which will be levied for the remaining quantity of data acquired beyond the stipulated time period. No payment towards the stand-by charges with or without crew during Monsoon Break & camp maintenance will be payable during this extended period due to non-completion of tendered volume of work within the stipulated time period. Contractor's request , if any, to allow them to work during monsoon , may be considered by the Company only at Contractor's cost and peril, however, Company would accept and pay for only quality data in this regard and Contractor will not be paid any other charges like standby, force majeure etc.

6.5 The additional quantum of work mentioned in Para 2.9 above shall be completed in additional period in proportionate to 8 (Eight) operating months for 400 sqkm(Full Fold), excluding monsoon break, for acquisition and 6-months for processing. In case the Contractor fails to complete the extended volume of the data acquisition job within the additional period, a penalty of 10% of the per sqkm rate will be levied for the remaining quantity of data acquired beyond such additional period. No payments towards the stand-by charges with or without crew for Monsoon Break will be payable during this extended period due to non-completion of extended volume within the stipulated time period. In case the Contractor fails to complete the extended volume of the data processing job within the extended period, a penalty @ 0.5% of the total evaluated contract cost for delay of each week or part thereof, subject to maximum of 7.5% in the event of Contractor's default in completion of Data Processing jobs within the agreed schedule of completion.

6.6 The seismic data processing shall commence immediately after the completion of acquisition of the first 150 Sq.Km (Full Fold) of the block. The remaining processing would start after completion of the entire acquisition. The final data processing would be the single volume processing of the merged data (initial 150 Sq.Km + the remaining data acquired thereafter). Every processing step shall include detailed testing of parameters. Entire Acquisition and Processing work needs to be completed within a period of 14 months (8 operating months for acquisition + 6 months for processing) from date of completion of mobilization. Only acquisition work will be suspended during the monsoon break, if any, and processing as well as special processing work will continue during this period.

7.0 Personnel and Equipment:

7.1 The Contractor shall supply all personnel, experts, labors, equipment and facilities necessary for the successful completion of the work and fulfillment of the given production guarantee. However, minimum requirement of personnel and equipment are listed vide Annexure - I & II.

7.2 The processing work needs to be supervised by experienced processing geophysicists. He/ she should have in-depth knowledge in land 3D data processing and should have at least 8 yrs experience in land 3D seismic data processing.

8.0 Start of Work:

8.1 The Contractor must complete mobilization and commence work within 90 days from the date of issue of LOA by Company. Company prefers that Contractor will mobilize all the survey equipment within 60 days from the date of issue of LOA, so that initial survey work can be taken at an early date, immediate to LOA. This will help the contractor to commence production shooting immediately after the entire mobilization is completed in 90 days. The period for the completion of the job will be counted from the time when the first acceptable production shot is taken and certified by the company representative as acceptable.

9.0 Experimental Work:

9.1 All necessary experiment and other tests to determine optimum field parameters shall be performed prior to commencement of data acquisition. The tests shall be carried out as per the international practice in the Seismic Industry. It may be required to carry out certain field test at the request of the company. Any time spent on this, however will be paid on a pro-rata basis as experimental shooting per day rate.

9.2 The Contractor may provide at their own cost expert R&D staff for consultation in India, at site during experimentation stage at the beginning of the work, and later during the course of work as and when necessary.

9.3 The Contractor shall carry out detailed tests of processing parameters so that optimum sequence / parameters can be achieved. The tests need to be carried out as per industry standards. It is envisaged that such test processing will be done on about 5 percent of total data volume, which will be distribute over the block and shall be identified in consultation with Company representatives. The parameter testing should be comprehensive for entire processing sequence with adequate QC checks.

10.0 DATA / CARTRIDGE LIABILITY

10.1 Contractor shall be solely responsible for quality, loss or damage due to any reason including fire, theft, etc. of any documents / cartridge / soft copies and other important documents / CDs etc. pertaining to the contract while in their custody or control. In the event of such loss, the Contractor shall be responsible to redress / re-shoot the loss entirely at their own cost. However the decision on the modalities to re-shoot / redress against such losses shall be entirely at the discretion of Company. The Contractor shall use original, high quality, high durability, error free IBM **3592E/DLT/LTO-3** cartridges with zero write-skip error, zero read error and zero write error. Each and every cartridge is to be 100% tested to ensure error free performance at specified high recording density. It should be ensured that the integrity of the data copied / recorded offline on the NAS storage devices is preserved and checked for the entire volume of data.

11.0 DELIVERABLES AND SCHEDULE OF PERFORMANCE:

A. SEISMIC DATA ACQUISITION

11.1 Contractor shall maintain all their equipment in perfect working condition and submit daily, weekly and monthly reports of the performance of the equipment to the Company. The Contractor shall have the facility to process, generate and provide performance report of the equipment at site. Contractor will provide monthly performance tests in cartridges for QC. If the Company's authorized representative is not satisfied with the report submitted and performance of the equipment, the Contractor shall suspend the operations till the Company's representative is satisfied with the performance of the equipment. No payment shall accrue to the Contractor during the period the work is suspended as aforesaid.

11.2 Contractor shall submit a detailed report on selection of the field parameters within 40 hours of the completion of the experimental work. The Company will give its views within 40 hours of the receipt of the report on experimental shooting. The seismic production shooting will not start unless the Company is satisfied with the results of experimental work.

11.3 Contractor shall submit to the Company a weekly report on data quality control of the jobs undertaken during acquisition. Contractor will have to carry out preliminary processing of the data for quality control purpose and submit weekly report on data quality to the Company. If the Company representative finds that the quality of the data is not in accordance with the stipulation in the agreement then, he/she may instruct the Contractor for re-shooting. Re-shooting cost would be entirely to the Contractor's account.

11.4 Everyday after completion of shooting, the Contractor will provide necessary plots, data of foldage diagram, offset and azimuth distribution to the Company representative resulting from day's shooting. In case of skip shots

points the contractor said plan appropriate recovery shots for recovering the loss of geophysical attributes. The Contractor will put all out effort to take recovery for each shot skipped at the nearest possible point. Any skip of shot, which is not recovered & not certified by Company representative, will be re-shot by the Contractor at its own cost. The Company representative must be satisfied with the action taken in case of anomalies. The production shooting for the day will only start after the Company representative is satisfied with these results.

11.5 Apart from above, Contractor shall submit :

i) Daily report consisting of:

- daily survey progress ;
- drilling report ;
- daily field test reports;
- recording progress ;
- uphole & refraction profiling report ;
- quality control reports ;
- explosive consumption / stock report.

ii) Weekly report consisting of :

- weekly progress of survey & recording ;
- uphole & refraction profiling report ;
- quality control including stacks generated ;
- explosive consumption/stock report ;
- summary of data transmitted to Company ;
- summary of Health, Safety & Environment incidents .

iii) Monthly report consisting of :

- monthly progress of survey (with line sketch) & recording ;
- uphole & refraction profiling report ;
- quality control reports and seismologists report ;
- intersection information with survey & statics mismatch if any ;
- number of permanent reference points/pillars fixed with detail coordinate, sketch with cultural information ;
- explosive consumption/stock report ;
- summary of Health, Safety & Environment incidents ;
- list of visitors ;
- list of personnel, equipment.

11.6 Contractor will submit/deliver the following data to the authorized Company's representative at site within 10 days of completion / termination of recording of the swath:

- Seismic data cartridges for each swath (2 copies of the data) in desired Format etc. on IBM 3592E/DLT/LTO 3 media and one copy on USB external HDD in SEGD Format.
- Observer's reports with shot-receiver geometry, hole depth, Active & dead channels, charge size, uphole times, ITB/misfires, skip-recovery, edits, recording parameters, up-hole and refraction profiles in internationally acceptable formats;
- Survey data in UKOOA, ASCII format, base maps, coverage map, map showing location of Uphole and refraction profiles, receiver and shot station computed for LVL/Uphole in ASCII format along with the interpretation of the refraction profile & statics correction data;

11.7 Contractor shall submit a final report for each block covering the entire operation within 20 days of the completion of work in the block which must include :

- Review of geophysical objectives & success of the project in meeting the objectives including the data quality ;
- Detailed information on Mob, Demob of equipment & personnel ;
- Field experiment procedure & results ;
- Sample field record, uphole plot, refraction profile and processed section ;
- Base map in desired scale ;
- Map showing location of uphole & refraction profiles ;
- data quality map ;
- Operational summary including total survey, explosive consumption, logistics etc ;
- Recommendations, if any.

11.8 DGPS Surveying & Line Surveying Report

The Contractor shall submit an interim report covering all the DGPS works within thirty days of completion of observations. This report should include the following but not limited to:

- a. Description of the survey including method, equipment, chronological record of events, existing reference station(s) used in the survey, survey history of the reference station, etc.
- b. Detailed account of the final processing including the final results in the WGS84 datum and geographic & local grid co-ordinates on the local datum, software packages used etc.
- c. A summary of all the geodetic parameters used during processing including a detailed account of how the transformation was made to the local datum & geoidal model used to provide orthometric height above the mean sea level.

- d. A detailed station description of each reference point established showing location and approach diagram, photograph, geographic and local grid co-ordinates reduced to the top of the monument, monument description, geodetic parameters, name of datum (observed & local), antenna height, date established, observation duration, master station used in the translocation & a statement on the estimated accuracy of the surveying results.
- e. A general account of how the land surveying was performed both technically and logistically.
- f. A detailed account of how the land survey was adjusted.
- g. A discussion on any problems encountered during the DGPS survey & Line survey including the period of instability, equipment failure, poor coverage, navigation system down-time or malfunction for other reason, resurveys, misties in land surveys, resurveys, and recommendations for future surveys.

Similarly Contractor shall provide a final report of the work within 30 days of completion of the work, covering the subjects as given above. Contractor may also give summary of the problems faced during the work.

11.9 The Contractor shall arrange the location maps in three scales, as will be decided by Company within 15 days after the end of survey in a block and final composite maps within 10 days after completing the entire project. However, the Contractor shall from time to time update the base maps with the progress of the survey and the same shall be made available to the Company as and when required. The Contractor must also provide digitized base map with information of shot-points, trace points, reference points, logistics etc. in proper and internationally accepted format, within the time frame specified above in this paragraph. The Contractor shall provide to the Company the hard copies of color plots and other plots to show adequate bin coverage and offset distribution within a bin as specified.

B. SEISMIC DATA PROCESSING

11.10 During the course of processing, the Contractor shall carry out detailed tests (over about 5% of the total data volume from at least 5-locations within the Block) of all the processing parameters so as to achieve optimum processing sequence. The results of tests need to be certified by Company representatives in the processing center of the Contractor. The next step of the processing work will start only after the test results are finalized.

11.11 The Contractor shall provide weekly / monthly reports on the progress of data processing. The report shall include among others the step of processing and percentage of processing accomplished.

11.12 The contractor will also submit five (5) copies of report of seismic data processing within one(1) week of the completion of processing of each block. Contractor will also submit five (5) copies of a report consisting detailed processing and special processing steps within one (1) week of its completion. Apart from the above, Contractor will submit the followings:

a) **Soft Copies with appropriate information in SEG-Y header (on DLT & 3592E/LTO-3 cartridges in duplicate):**

- Raw Data with Geometry Assigned: SEG-Y format (With all the Traces Headers Appropriately Mapped)
- Final SPS Files used for Geometry Assignment: ASCII format
- Trace Kill Table in ASCII format.
- CMP gathers before PSTM : SEG-Y format
- CMP gathers after PSTM : SEG-Y format
- Migrated stack data with and without scaling : SEG-Y format
- PSDM gathers in SEG-Y format
- PSDM Stack in SEG-Y format
- Final PSDM velocity model
- Time converted PSDM stack in SEG-Y format
- Post stack inversion results in SEG-Y
- Final AVO gathers and Angle Stacks (Near , Mid & Far) other relevant outputs in SEG-Y (with AVO friendly data conditioning)
- Migration velocities in ASCII format
- Post stack depth migration data with and without scaling : SEG-Y format
- A set of Post stack Data to be provided in Zero Phase IN SEG-Y format with and without Scaling.
- Base map – CMP co-ordinates in digital format on film.

b) **Hard copies:**

- Displays of all parameter test results and QC checks
- Final Stack and migration sections of every 10th inline and cross line in a scale of 25 traces/inch (horizontal) & 5 inches /sec (vertical)
- Base map in scales 1: 100000, 1:25000 on film
- CMP foldage map in scales 1: 25000

11.13 DETAILS OF DATA PROCESSING (H/W & S/W):

The contractor shall provide a list of the Hardware and Software, along with the vintages/version that he shall deploy for the entire processing job. He will provide the place /processing center where the entire processing job will be carried out.

12.0 Quality of Work:

12.1 Contractor shall carry out the services (3D Data Acquisition, Processing) in a fully professional manner and warrant that the information produced shall be of a quality acceptable to the Company. Should the information produced be of a quality not acceptable to the Company, the Contractor will undertake to re-perform that part of the services causing dissatisfaction at their own expenses. Company's standard for the performance shall be as per by the IAGC standard.

12.2 Company reserves the right, before commencement of data acquisition, to inspect and approve Contractor's equipment after it is completely assembled and ready for work.

12.3 Company also reserves its rights to inspect the Contractor's equipment at any time during operation. Any equipment found short/defective shall be replaced within the shortest possible time but not later than six weeks without disruption of the work assigned under the contract. No extension will be granted in the contract on these grounds. Any equipment found defective or unserviceable more than two times during the tenure of the contract will be replaced by the Contractor forthwith at their own cost. The time for replacement shall not be more than six weeks from the date of default identified by the Company. No payment will be made if operations have to be suspended on account of non-availability of equipment.

12.4 Company reserves the right to examine status report of the processing system before commencement of work. The work will start only when the Company representatives are satisfied with the same.

13.0 Bad Records:

13.1. The field records will be as per SEG standard Polarity with the following will be considered as bad records:

- Record with noisy/ dead traces more than one percent of total number of traces in each record.
- Inconsistent Polarity
- Records containing more than two consecutive noisy/ dead trace will be considered as bad records.
- Record with sync error.
- Record with parity error(s).
- Record with appreciable cross-feed, leakage and spread noise.

13.2 If the signal- to-noise ratio is not acceptable due to poor loading depth or other wise which is under control of the contractor, the same shall be re-shot by the Contractors.

13.3 Records defined in para 13.1 to 13.2 herein above shall be considered as bad records and the Contractor shall re-shoot such bad records. Re-shooting cost would be entirely to the Contractor's account.

14.0 Obligation of the Contractor:

14.1 **SECURITY:** Proper Security in the camps / explosive magazine sites, transportation in field / loading and all related field / spread operation shall be arranged by the Contractor at its own cost.

14.1.1 Accommodation, transportation to field site/camps and other necessary camp amenities, wages/salaries etc for the security personnel deployed by contractor for its camps/explosives magazine sites etc. shall be the responsibility of the Contractor at its own cost.

14.2 **EXPLOSIVES AND DETONATORS:** Contractor shall arrange at his own cost necessary quantity of explosives and detonators as per industry law and practices. The contractor has its responsibility to arrange at its own cost the necessary permit / license to store, transport and use explosives and detonators to and from the Main Magazine. Contractor shall be responsible for handling, loading and blasting of shots in shot holes by engaging authorized licensed personnel and for maintaining records of consumption and stock of explosives and detonators.

14.3 Contractor at their own cost shall arrange the clearance of all equipment, spare parts, consumable, etc. from customs and port authorities in India. Company will provide all reasonable assistance but the responsibility for clearance will rest with the Contractor. Any demurrage in this process will be at Contractor's cost. Contractor shall arrange for inland transportation of all equipment, etc. from the port to the place of work and back at the end of the work at their own expenses. Arrangement of Road Permits and payment of Andhra Pradesh & Puducherry (UT) Entry Tax / VAT etc., wherever applicable, for bringing Contractor's equipment / material to Work place shall be Contractor's responsibility.

14.4 Contractor shall arrange at their own cost all consumables & spares including papers, photographic materials, magnetic tapes/ cartridges, loading poles, cap wires and all other consumables and spares needed for the work and shall carry sufficient stocks of these for uninterrupted operation.

14.5 Contractor shall use cartridge tapes tested for zero error. Contractor shall maintain proper accounts of the consumption of explosives and detonators and shall submit daily, weekly and monthly consumption/ stock statements to the

Company. All the field tapes / cartridges of experimental data (both hard & soft copies) will be provided to Company at no extra cost.

14.6 Contractor shall arrange both lodging and boarding facilities for 4 (Four) Company Geophysicists/Representatives at no extra cost at each campsite during data acquisition phase. The camp facilities to the Company's representatives shall be at par with their senior expatriate staff.

14.7 Contractor shall arrange two vehicles exclusively for use of Company representatives with driver, fuel, maintenance, repairs, etc. at their own cost during the contractual period.

14.8 During data acquisition, Contractor shall ensure minimum 8 working hours work on each working day excluding travel time. Two days in a calendar month are allowed for maintenance of equipment, if desired, by the Contractor, but no payment will be due for the same and this cannot be carried forwarded to next months.

14.9 Contractor shall keep all their equipment and accessories used in seismic data acquisition in good working order and shall begin the survey with adequate supply of spares for the equipment.

14.10 The Contractor shall arrange drinking water (mineral water) & other water for daily use and its transportation to camp/site at their own cost for OIL's representatives.

14.11 In case the Contractor imports the equipment etc. on re-export basis, the Contractor shall ensure for re-export of the equipment and all consumables and spares (except those consumed during the contract period) and complete all documentation required. Company will issue necessary certificates etc. as required.

14.12 Any other works required for efficient and successful execution of work shall be carried out by the Contractor except those enumerated under the obligations of the Company defined below.

14.13 Contractor should provide the list of items to be imported in the specified format. Customs duty may not be applicable in this instant as the Block has been awarded in NELP-VI round. However, the contractor has to provide the CIF value of the items as specified (the hardware and software should be shown separately) to the Company. Customs duty on any items in addition to above will have to be borne by the Contractor. However, the Contractor will submit the undisputed and clear necessary documents/duty assessment papers to Company for any such additional items imported under this contract.

14.14 The Contractor should arrange for re-export of equipment within 60 days of notice of demobilization issued by the Company/ completion of Work.

14.15 The Contractor should use latest versions of all software packages during the period of the contract. All the necessary Radio licenses for shooting, communication etc. will be obtained by the contractor. However, the company will provide all reasonable administrative helps/letters.

14.16 The Contractor shall furnish the list with Bio-data of key personnel proposed to be deployed prior to the commencement of Work. The bio-data shall include the name, nationality, qualification, experience and passport details of the person.

14.17 The Contractor's expatriate and technical personnel must have thorough knowledge of writing & speaking English language.

14.18 The Contractor's personnel must be sound enough to provide the above services in international standard, failing which Company reserves the right to ask for removal of any Contractor's personnel with 24 hours notice.

14.19 Any other work required for the efficient and successful execution of work shall be carried out by the Contractor except those enumerated under the obligation of the Company defined in para 15.0. Contractor will also provide Company accurate position of existing oil and gas wells in the blocks.

14.20 All claims/compensation for the loss or damage but not limited to standing crops, land or property etc. resulting from seismic data acquisition operations under the Contract will be borne and paid by the Contractor. All the necessary permissions/clearances from the Govt. authorities for carrying out seismic surveys and permits to enter into the neighboring area of the block for purpose of line change /fold coverage will be obtained by the company.

14.21 The main recording equipment should be housed in a properly insulated, air-conditioned cabin, mounted on a eco-friendly truck. The truck should be capable of moving in difficult terrains. ATV type of Instrument van may be desirable. For shooting in river beds the contractor may have to arrange floats or similar vessels for recording operation.

14.22 Security of fly camps, Contractor's equipment etc. will be the responsibility of the Contractor. Contractor will provide accommodation, transportation, uniform with safety gadgets and other facilities to security personnel for providing security of the base camp and explosives during field operations.

14.23 The explosives vans and explosive jeeps of the contractor should be as per the industry standard and certified by the competent explosive authorities concerning the area of operation. The Contractor should have personnel with proper shot firer license certified by the Chief Controller of Explosives, India, for all aspects of seismic survey operations dealing with explosives.

14.24 Company will depute 2-3 geophysicists at a time during the data processing phase. Contractor must provide adequate office space for the Company representatives involved during processing. They also must provide fax, telephone and internet facilities to Company representatives at their office.

14.25 Contractor shall arrange for air-shipment/ dispatch of field data to the Contractor's processing centre. However, Company will provide all support to obtain necessary clearances from authorities in Government of India, if required.

14.26 Contractor shall provide detailed description in the bid document about their proposed work plan (including camp set-up, survey, laying of field electronics, arrangements for drilling/blasting/loading/recording, recovery shots etc.) to shoot all type of terrain expected to be encountered.

14.27 Contractor must fill-up the check list as provided as APPENDIX-I of the bid document.

15.0 Obligation of the Company:

15.1 Company shall be responsible for Petroleum Exploration License (PEL) for carrying out survey. Administrative help will be provided by Company for radio frequency clearance and permits for the expatriates required for the operations. However, the Contractor shall make available the required details of the expatriates for their permits, well in time.

15.2 Contractor shall, however, arrange clearance of all items from customs and port authorities in India and shall pay all requisite demurrages, if any, clearance fees/ charges, port fees, clearing and forwarding agent fees/ charges, inland transport charges, etc. Company shall provide all reasonable assistance by issuance of necessary letter of authority or other relevant documents and necessary help.

15.3 The Company shall provide, if required, all relevant documents for clearance from Govt. of India or States or their departments or undertakings and will extend all assistance and necessary help to the Contractor. The Contractor will give Company 45 days advance intimation for providing import license and clear 10 working days for providing essentiality certificate (EC from Directorate General of Hydrocarbons, NOIDA, India) provided all the documents submitted by the Contractor are in order. Any consequence due to delay will be to Company's account.

15.4 Company shall organize all possible help from local Government/ Administration to Contractor's personnel and equipment in case of natural disaster, civil disturbances and epidemics.

16.0 GEO-CHEMICAL SAMPLE COLLECTION:

16.1 Contractor shall carry out sample collection for geochemical studies in the survey area as per the requirement of the company. Contractor shall collect **500** nos. of soil samples from the area of operation in a professional and scientific manner for geochemical studies and submit the collected samples at no extra cost to the company.

16.2 The soil samples should be collected from dry holes at a depth of approx.2m at an interval as advised by the company representative.

16.3 From every hole, 2 numbers of around 250 gm each of soil samples will have to be collected. The soil samples would have to be wrapped in aluminium foil and packed in a polythene bags to be put inside cloth bags so that moisture in samples is retained. Supervising company representative at site will demonstrate the collection of the soil location details on the sample bag. The sample bags so collected will be handed over by the contractor to company representative at site regularly.

16.4 Some of the proposed sample collecting stations are likely to fall in forest zones. In such instances after checking with company supervising representative at site, alternately, collection of samples may be carried out depending on feasibility.

CHECK-LIST TO BE FILLED-IN BY THE BIDDER

A. EQUIPMENT & ASSESSORIES (DATA ACQUISITION)

- i) DGPS for Surveying
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- ii) Total Station
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- iii) Other survey equipment

- iv) Survey / DGPS software

- v) Main seismic recording equipment
 - Make
 - Model
 - Year of manufacture

- vi) Field electronics
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- vii) Low distortion geophones
 - Make
 - Model
 - Year of manufacture
 - No. of groups to be deployed

- viii) Marsh phones
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- ix) Hydrophones
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- x) Cables
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xi) Airguns
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xii) Wireless links /Laser Links
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xiii) DGPS Based Blasters
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xiv) Test & Maintenance repair Stations
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xv) Test & Measurement Equipment
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xvi) LVL/Uphole Equipment
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xvii) Other accessories
 - Make
 - Model
 - Year of manufacture
 - Nos. to be deployed

- xviii) Software for On-Line QC processing of Raw Seismic data . (Every shot recorded in the field).
- xix) Software for seismic Planning , Designing, Simulation and management.
- xx) Survey Data Processing & Management Software.
- xxi) LVL/Uphole Data Processing & Interpretation Software.
- xxii) 3D Seismic Data Processing Software (Field Processing)
- xxiii) Other related software (like mapping/plotting)
- xxiv) Hardware configuration for QC processing system
- xxv) PCs to be used
- xv) Radio Sets and other wireless sets with license
- xvii) Test & Maintenance Equipment

&&&&&&&&

SECTION-V
SCHEDULE OF RATES / PRICE BID FORMAT
Acquisition & Processing of 400 Sq. KM (Full Fold) of 3D data in OIL's NELP-VI Block
KG-ONN-2004/1 in areas of Andhra Pradesh (511 SqKm in East Godavari District) &
Puducherry (38 SqKm in Yanam District)

FORMAT FOR RATES TO BE QUOTED BY THE BIDDER FOR ACQUISITION AND PROCESSING

ITEM	UNIT	QTY	Unit Price	Total Price
A. DATA ACQUISITION (SPECIFY CURRENCY)				
a. Charges for Mobilization	Lump sum	1	a1	A1 = a1 x 1
b. Charges for Acquisition of Full Fold (64 fold) 3D seismic data inclusive of required LVL & Uphole survey/interpretation	Sq. Km	400	a2	A2 = a2 x 400
c. Cost of experimental shooting per day	DAY	20	a3	A3 = a3 x 20
d. Standby charges (During the operating period)	DAY	20	a4	A4 = a4 x 20
e. Force Majeure rate per day	DAY	20	a5	A5 = a5 x 20
f. Charges for fixing reference points by DGPS	Points	350	a6	A6 = a6 x 350
g. Charges for Demobilization	Lump sum	1	a7	A7 = a7 x 1
Total Charges for Data Acquisition: A =			A1+ A2+ A3+ A4+ A5+ A6+ A7	
B. DATA PROCESSING				
a. Charges for Basic Processing (Full Fold)	Sq. Km	400	b1	B1 = b1 x 400
b. Charges for Pre-stack depth Migration (Full Fold)	Sq. Km	300	b2	B2 = b2 x 300
c. Charges for AVO Analysis(Full Fold)	Sq. Km	300	b3	B3 = b3 x 300
d. Charges for Post stack Inversion(Full Fold)	Sq. Km	300	b4	B4 = b4 x 300
e. Tomographic statics computation (Full Fold)	Sq. Km	300	b5	B5 = b5 x 300
Total Charges for Data Processing: B =			B1+ B2+ B3+ B4+B5	
Total Estimated Value inclusive of all applicable taxes and duties but excluding service tax.			C = A + B	
Total CIF value of consumables i.e. Non-exportable items (as detailed in Performa-I) for record purpose as Custom duty may not be payable as the Block has been awarded under NELP-VI round			CIF (Consumables)-1	
Note: Mobilization Charges "A1" should be less than 5% of "C", failing which the excess amount so quoted shall be paid after demobilization. The above costs are to be inclusive of the desired deliverables / consumables/spares and cost towards other requirements as per scope of service.				

NOTE 1.: Percentage of Indian Agency Commission, if any, included in above rates (Please also indicate name & address of your Indian agent, if any) _____%

NOTE 2.: The quantities shown above are for bid evaluation purpose only and the payment shall be made for the actual quantity of the work done.

SIGNATURE OF THE BIDDER

I) NOTES ON SCHEDULE OF RATES

A) DATA ACQUISITION

MOBILIZATION CHARGES:

- i) Mobilization charges shall be a lump sum charge for all equipment & entire acquisition crew and shall be paid once at the beginning of the Contract.
- ii) Mobilization charges shall be inclusive of transportation and other costs for all spares/ consumables/ accessories and equipment.
- iii) Mobilization charges will be payable only when all equipment and crew are positioned at the appointed site free of defects/ any encumbrances , all equipments are fully tested, calibrated, put into operation and necessary experimental work conducted as specified in scope of work and first regular production shot is taken & accepted by the company and duly certified by the Head Projects (BEP&KG), OIL, that the Contractor is in a position to undertake / commence the work assigned under the contract.
- iv) Mobilization charges should cover all local and foreign costs of the Bidder to mobilize the equipment to the appointed site including all local taxes, port fees and inland transport etc.

RATE FOR 3-D SEISMIC DATA ACQUISITION:

- i) Charges shall be payable on per Sq. Km basis for Full Fold (64 fold) 3D Seismic data.
- ii) Operating charges should include all the charges but not limited to the charges on equipment/ accessories, cost of fuel, explosives & detonator, security, spares, preventive maintenance, mob/demob of on/off crews, collection of geochemical samples, consumables to and fro transportation, messing, camp establishment/ maintenance and repair of support infrastructure, shifting of camp, compensation for crop and property damages, medical of personnel, hire of any support infrastructure, pass crossing, etc., and including income tax, other local taxes and fees which are the Contractors liability.

RATE FOR EXPERIMENTAL SHOOTING:

- i) Experimental work rate of 3D data acquisition Crew per day (10 hrs per day actual working in field excluding travel time):
- ii) If the experimental work is done on a part of the day, payment will be done on pro-rata basis for hours certified by the Company's representative.

RATES FOR STANDBY:

Standby rate of 3D data acquisition crew per day will be applicable for the following cases which will be limited to a maximum of 20 days during the operation period of the entire contract:

- Time lost due to lack of Company's instruction or decision, lack of seismic program;
- Time spent for causes due to and/or requested or suspension of the work by Company;
- Time for special tests and experiments as may be requested by COMPANY, including tests to ascertain conditions or events which are caused by conditions beyond CONTRACTOR's control; unless the test is done to check/verify the performance of the equipment.
- Time lost due to Company's request to change of operating priorities causing to retrieve and re-deploy equipment; time spent in re-calibrating or re-verifying calibration of radio positioning equipment (provided that the re-calibration determines that the equipment is in good working order and Contractor is not at fault for performance).
- Time lost for preparing, performing and analyzing technical tests and HSE audits at Company's request; unless the test is done to check/verify the performance of the equipment.
- Delay or lack from Company in obtaining necessary permits, authorizations, licenses, under Company's responsibility.
- Time lost due to adverse weather conditions and its consequences such as stand-by generated by static electricity; which will be required to be certified by Company.
- Restricted hours outside the direct control of Contractor; which will be required to be certified by Company

For river / riverine areas

- Time lost through third party interference over which Contractor has no direct control. However the same has to be certified by the Company.
- Time lost through failure of the GPS due to non-availability of satellite passes which is required to be certified by Company.
- Time lost in reconfiguring system at Company's request.
- Delays caused by observing the guidelines issued by the Company and/or regulatory authorities which is required to be certified by the company.

RATE DURING FORCE MAJEURE:

This rate will be applicable during Force Majeure condition of the contract and payable on per day basis.

- i) Payment will be done on pro-rata basis for hours certified by the Company's representative.

RATE FOR FIXING REFERENCE POINT BY DGPS:

- i) The charges for fixing of reference point shall be payable on per point basis.
- ii) The rate per point should be all inclusive.

DEMOBILISATION CHARGES:

Demobilization charges for 3D data Acquisition crew and all equipment:

- i) The demobilization charges should be quoted as lump sum charge which will include all charges for demobilization of all equipment and crews with all supporting provisions from the camp where the survey concludes.
- ii) The demobilization charge would be paid only once at the end of the contract.
- iii) Company shall give notice to Contractor to commence demobilization. Contractor will ensure that demobilization is completed within **90 days** of notice from Company/Completion of Work. No charge whatsoever will be payable from the date of notice to demobilization.
- iv) All charges connected with demobilization including all fees and taxes in relation thereto and insurance & freight on export outside India will be to Contractor's account.

B) 3D SEISMIC DATA PROCESSING

CHARGES FOR BASIC 3D SEISMIC DATA PROCESSING:

- i. Charges for Basic 3D data processing shall be payable on per Sq. Km basis for the Full Fold data volume.
- ii) Rate quoted for 3D data processing is for the sequence mentioned in Scope of Work/Terms of Reference. It should include all the charges for the equipment/accessories, spares, consumables, charges of contractor's personnel, processing tests, deliverables, and office space & other facilities for Company representatives etc.

RATE FOR PRE-STACK DEPTH MIGRATION:

- i) Charges shall be payable on per Sq. Km basis.
- ii) It should include all the charges for the equipment/accessories, spares, consumables, charges of contractor's personnel, processing tests, deliverables, and office space for Company representatives, etc.
- iii) This will be considered for bid evaluation. Payment will be made on actual work done.

RATE FOR AVO PROCESSING, MODELLING & ANALYSIS:

- i) Charges for AVO shall be payable on per Sq. Km basis. It should include all the charges for the equipment/ accessories, spares, consumables, charges of contractor's personnel, processing tests, data conditioning to make it AVO friendly, deliverables, and office space for Company representatives, etc.
- ii) This will be considered for bid evaluation. Payment will be made on actual work done.

RATE FOR POST STACK INVERSION:

- i) Charges for Post stack Inversion shall be payable on per Sq. Km basis. It should include all the charges for the equipment/ accessories, spares, consumables, charges of contractor's personnel, processing tests, deliverables, and office space for Company representatives, etc.
- ii) This will be considered for bid evaluation. Payment will be made on actual work done.

RATE FOR TOMOGRAPHIC STATICS COMPUTATION:

- i) Charges for tomographic statics computation shall be payable on per Sq. Km basis. It should include all the charges for the equipment/ accessories, spares, consumables, charges of contractor's personnel, processing tests, deliverables, and office space for Company representatives, etc.
- ii) This will be considered for bid evaluation. Payment will be made on actual work done.

II) GENERAL NOTES:

- a) Bidders should indicate name and address of their Indian agent if any and also should specify the percentage of commission if any involved and it should be included in the quoted rates. In case no Indian agent commission is involved then should be shown as "NIL".
- b) Bidder should submit the list of items with CIF value to be imported into India in connection with execution of this contract.
- c) The bidder should identify the items of re-exportable in nature (i.e. items which will not be consumed during the execution of the contract and required to be exported out side India after completion of the contract). Total CIF value of such items should be shown in the "**PRICE BID FORMAT**" as CIF (RE-EX).
- d) The bidder should identify the items of consumable in nature (i.e. items which will be consumed during the execution of the contract). Total CIF value of such items should be shown in the "**PRICE BID FORMAT**" as CIF (CONSUMABLES).

&&&&&

SECTION-VI

SPECIAL CONDITIONS OF CONTRACT

1.0 ASSOCIATION OF COMPANY'S PERSONNEL:

1.1 Company's geophysicists/consultants will be associated with the work through out the operations. The Contractor shall execute the work of seismic data acquisition with professional competence and in an efficient and workman like manner and provide Company with a standard of work customarily provided by IAGC.

1.2 The final field parameters will be decided with prior approval of the Company's representatives after conducting the field tests and test processing. Contractor shall not change any parameters without prior approval of Company's representative.

2.0 PROVISION OF PERSONNEL AND FACILITIES:

2.1 The Contractor shall provide the Key personnel, as given in Annexure-I, for consultancy, quality control and data acquisition.

2.2 All the personnel mentioned in Annexure-I must have requisite experience in respective fields and should be fluent in English language. On Company's request, Contractor shall remove and replace at their own expenses, any of their personnel whose presence is considered undesirable in the opinion of the Company.

2.3 The Contractor shall be responsible for and shall provide for all requirements of their personnel, and of their sub-contractor, if any including but not limited to their insurance, housing, medical services, messing, transportation (both air and land transportation), vacation, salaries and all amenities, termination payment and all immigration requirement and taxes, if any, payable in India or outside at no extra charges to the Company.

2.4 Bidder shall furnish the list of equipment with type, make and year of manufacture with supporting documents along with their offer.

3.0 LABOR

3.1 The recruitment of the labor (all unskilled and suitable skilled) shall be met from the areas of operation and wages will be according to the rates prevalent at the time which can be obtained from the District Authorities of the area. The facilities to be given to the laborers should conform to the provisions of labor laws as per contract Labor (Regulation and Abolition) Act, 1970.

4.0 CONFIDENTIALITY OF INFORMATION:

4.1 All information obtained by Contractor in the conduct of operations and the information/maps provided by the Company to the Contractor shall be considered confidential and shall not be divulged by Contractor or its employees to any one other than the Company's personnel. This obligation of Contractor shall be in force even after the termination of the contract.

5.0 PAYMENT, MANNER OF PAYMENT, INVOICES

5.1 Company shall pay to the 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.

5.2 Payments due by Company to Contractor hereunder shall be made at Contractor's designated bank with Reserve Bank of India (RBI)'s approval. Bank charges, if any, will be on account of the Contractor.

5.3 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 within notice of objection to any item or items the validity of which the Company questions.

5.4 Contractor will submit six sets of all invoices to the Company for processing payment. Separate invoices for the charges payable under the contract shall be submitted by the Contractor for foreign currency and Indian currency.

5.5 Contractor shall raise invoice after first production shot is taken and duly certified by Company's representative.

5.6 The Contractor shall raise monthly invoices for the 3D data acquired and which is handed over to the Company at the office of the Head Projects (BEP&KG), OIL along with LVL & Up-hole (static correction) data. The data submitted without LVL and Up-hole data shall be considered as incomplete.

5.7 The Contractor shall raise monthly invoice for reference point fixing by DGPS after fixing the reference points and submitting the processed data with a report.

5.8 The Contractor shall raise invoice for demobilization of 3D crew & equipment after completion of demobilization.

5.9 The Contractor shall raise invoice covering data processing charges for each block on completion of acceptable final output of the data processed including submission of processing report and all deliverables.

5.10 Payment of mobilization charges shall be made within 45 days following the date of receipt of invoices by Company as referred to in para 5.5 above.

5.11 Payment of monthly invoices, if undisputed, shall be made within 30 days following the date of receipt of invoice by Company.

5.12 Payment of demobilization charges shall be made when applicable within 45 days following receipt of invoice by Company accompanied by the following documents from the Contractor:

- a) Proof of re-export of all items (excepting consumables and spares consumed during the contract period) in case items are imported on re-export basis.
- b) No dues certificate from the District Transport Authorities.
- c) Any other documents as required by applicable India Laws.

5.13 Company shall within 20 days of receipt of the invoice notify the Contractor of any item under dispute, specifying the reasons thereof, in which event, and payment of the disputed amount may be withheld until settlement of the dispute, but payment shall be made of any undisputed portion on or before the due date. This will not prejudice the Company's right to question the validity of the payment at a later date as envisaged in para 5.3 above.

5.14 The acceptance by Contractor of part payment or interest on any billing not 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.

5.15 Contractor shall maintain complete and correct records of all information on which Contractor's invoices are based up to 2 (two) 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.

6.0 RATE OF PAYMENT:

Company shall make the payments to the Contractor as per the quoted rates which must include all applicable taxes and duties leviable under the contract

7.0 LIABILITY:

7.1 Except as otherwise expressly provided, neither Company nor its servants, agents, nominees, Contractors, or sub-contractors 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 sub-contractors, irrespective of how such loss or damage is caused and even if caused by the negligence of Company and/or its servants, agent, nominees, assignees, contractors and sub-Contractors. The Contractor

shall protect, defend, indemnify and hold harmless Company from and against such loss or damage and any suit, claim or expense resulting there from.

7.2 Neither Company nor its servants, agents, nominees, assignees, Contractors, sub-contractors 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 sub-contractor 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 sub-contractors. Contractor shall protect, defend, indemnify and hold harmless Company from and against such liabilities and any suit, claim or expense resulting there from.

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

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

7.5 Except as otherwise expressly provided, neither Contractor nor its servants, agents, nominees, Contractors or sub-contractors 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 their Contractors or sub-contractors, 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 sub-contractors. The Company shall protect, defend, indemnify and hold harmless Contractor from and against such loss or damage and any suit, claim or expense resulting there from.

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

7.7 The Company 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 sub-contractors for loss or damage to the equipment of Company and/or its contractors or sub-contractors when such loss or damage or liabilities arises out of or in connection with the performance of the contract.

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

8.0 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 or 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.

9.0 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.

10.0 INDEMNITY AGREEMENT:

10.1 Except as provided hereof Contractor agrees to protect, defend, indemnify and hold Company harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favor of Contractor's employees, agents, contractors and sub-contractors or their employees on account of bodily injury or death, or damage to personnel/properly as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

10.2 Except as provided hereof Company agrees to protect, defend, indemnify and hold Contractor harmless from and against all claims, suits, demands and causes of action, liabilities, expenses, cost, liens and judgments of every kind and character, without limit, which may arise in favour of Company's

employees, agents, contractors and sub-contractors or their employees on account of bodily injury or death, or damage to personnel/properly as a result of the operations contemplated hereby, regardless of whether or not said claims, demands or causes of action arise out of the negligence or otherwise, in whole or in part or other faults.

11.0 INDEMNITY APPLICATION:

The indemnities given herein above, whether given by Company or Contractor shall be without regard to fault or to the negligence of either party even though said loss, damage, liability, claim, demand, expense, cost or cause of action may be caused, occasioned by or contributed to by the negligence, either sole or concurrent of either party.

12.0 WITH-HOLDING:

12.1 Company may withhold 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 jobs assigned as per Scope of work.
- b) Contractor's indebtedness arising out of execution of this Contract.
- c) Defective 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.
- e) Failure of Contractor to pay or provide for the payment of salaries/wages, contributions, unemployment compensation, taxes or enforced savings with-held from wages etc.
- f) Failure of Contractor to pay the cost of removal of unnecessary debris, materials, tools, or machinery.
- g) Damage to another Contractor of Company.
- h) All claims against Contractor for damages and injuries, and/or for non-payment of bills etc.
- i) Any failure by Contractor to fully reimburse Company under any of the indemnification provisions of this Contract. If, during the progress of the work Contractor shall allow any indebtedness to accrue for which Company, under any circumstances in the opinion of Company may be primarily or contingently liable or ultimately responsible and Contractor shall, within five days after demand is made by Company, fail to pay and discharge such indebtedness, then Company may during the period for which such indebtedness shall remain unpaid, with-hold from the amounts due to Contractor, a sum equal to the amount of such unpaid indebtedness.

With-holding will also be affected on account of the following:

- i) Order issued by a Court of Law in India.

- ii) Income-tax deductible at source according to law prevalent from time to time in the country.
- iii) Any obligation of Contractor which by any law prevalent from time to time to be discharged by Company in the event of Contractor's failure to adhere to such laws.
- iv) Any payment due from Contractor in respect of unauthorized imports.

When all the above grounds for with-holding payments shall be removed, payment shall thereafter be made for amounts so with-hold.

Notwithstanding the foregoing, the right of Company to withhold shall be limited to damages, claims and failure on the part of Contractor which is directly/ indirectly related to some negligent act or omission on the part of Contractor.

13.0 **APPLICABLE LAWS:**

13.1 The Contract shall be deemed to be a Contract made under, governed by and construed in accordance with the laws of India for the time being in force and shall be subject to the exclusive jurisdiction of Courts situated in Kakinada / Hyderabad.

13.2 The Contractor shall ensure full compliance of various Indian Laws and Statutory Regulations, to the extent applicable, as stated below, but not limited to, in force from time to time and obtain necessary permits/licenses etc. from appropriate authorities for conducting operations under the Contract:

- a) The Mines Act - as applicable to safety and employment conditions.
- b) The Minimum Wages Act, 1948.
- c) The Oil Mines Regulations, 1983.
- d) The Workmen's Compensation Act, 1923.
- e) The Payment of Wages Act, 1963.
- f) The Payment of Bonus Act., 1965.
- g) The Contract Labor (Regulation & Abolition) Act, 1970 and the rules framed there under.
- h) The Employees Pension Scheme, 1995.
- i) The Interstate Migrant Workmen Act., 1979 (Regulation of employment and conditions of service).
- j) The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- k) The Andhra Pradesh / Puducherry Govt. Sales Tax Act./ VAT
- l) Service Tax and other Acts.
- m) Customs & Excise Act & Rules
- n) Andhra Pradesh & Puducherry Entry Tax Act (as applicable)
- o) Indian Explosives Act, 1884 & Explosives Rules
- p) Forest Conservation Act, 1980

14.0 SUBSEQUENTLY ENACTED LAW:

Subsequent to the date of submission of offer by Contractor if there is a change in enactment of any law or interpretation of existing law, which results in additional cost/ reduction in cost to Contractor on account of the operation under this Contract, Company/Contractor shall reimburse/ pay Contractor/Company for such additional/ reduced cost actually incurred.

&&&&&&&&

SECTION-VII

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.

1.0 Technical

1.1 Bidders must have minimum experience of cumulative 2000 Sq.Km. of land 3D data acquisition on Technical Bid closing date. Bidders are to indicate their experiences along with supporting documentary evidences.

1.2 Bidders must have successfully carried out 2000 Sq.Km. of Land 3D seismic data acquisition in more than one Country other than the Country of origin (i.e minimum two Countries) on Technical Bid closing date.

Or

Overseas bidders should have successfully completed atleast 100 Sq.Km. Land 3D seismic data acquisition in India.

1.2.1 Bidders must have completed at least one project of 100 sq.km. of 3D and or 300 LKM of 2D in similar type of transition area involving simultaneous deployment of geophone & hydrophones as receivers and explosive & air guns as energy source in the same spread in last seven years on Technical Bid closing date. Bidder must produce documentary evidence in this respect.

1.3 Bidder must have a state-of-art processing center to carry out processing work. The bidder must have experience in carrying out processing of minimum 2000 sq.km. of Land 3D Seismic data in last 05 years ending on Technical Bid closing date. The bidder must also have experience in carrying out pre-stack migration processes for at least 500 sq.km. of 3D seismic data in last 05 years ending on Technical Bid closing date. Bidders are to indicate their experiences along with supporting documentary evidences.

1.4 The Bids shall be technically evaluated based on the minimum requirements given in Section-IV (Terms of Reference and Technical Specifications). Various equipment (software and hardware) must meet the minimum requirement/ specification given in the Bid Document.

1.5 The experience requirement of key personnel and vintage of equipment are provided in Annexure-I & II. The bid shall be rejected if personnel and equipment offered by bidder do not meet the requirement/experience of

personnel and vintage of equipment as mentioned in the Annexure – I & II respectively.

1.6 The bidder shall confirm that they shall be able to mobilize the equipment, personnel and commence the survey operation within 90 days from the date of issue of Letter of Award (LOA).

1.7 The bids from a joint venture/or collaboration or in consortium will not be considered.

2.0 Commercial

2.1 The bids are to be submitted in a single stage under 2(two) bid system i.e. Technical bid (unpriced) and Commercial bid (priced) together as per Section-II Clause 5.0 of the Tender.

2.2 The Bidder shall furnish original Bid Security along with Bid as referred to in Para 10 of Section II. Bid security shall be furnished as a part of technical bid. The amount of bid security should be as specified in the 'Forwarding letter'. Any bid not accompanied by a proper bid security will be rejected.

2.3 Any bid received through Telex/Cable/Fax/Email will not be accepted.

2.4 Bid shall be typed or written in indelible ink and original bid shall be signed by the Bidder or their authorized representative on all pages.

2.5 Bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by Bidder, 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 liable for rejection.

2.6 Any bid containing false statement will be liable for rejection.

2.7 Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price Bid Format given in SECTION-V, of bidding documents; otherwise the bid will be liable for rejection.

2.8 There should not be any indication of price, CIF value etc. in the technical bid. A bid will be straightway rejected if these are given in the technical bid.

2.9 The bid documents are not transferable. Offers received from unsolicited bidders will be ignored.

2.10 Offers quoted by Indian agents on behalf of their foreign principals will not be accepted and the same will be summarily rejected.

2.11 Any Bid received by the Company after the deadline for submission of bids prescribed by the Company will be rejected.

2.12 Price quoted by the successful Bidder must be fixed during its performance of the contract and not subject to variation on any account. A bid submitted with an adjustable price quotation will be treated as non-responsive and rejected.

2.13 The following Clauses with all its sub-clauses should be agreed in toto, failing which the bid will be rejected.

- Performance Security Clause
- Taxes Clause
- Insurance Clause
- Force Majeure Clause
- Termination Clause
- Arbitration Clause
- Liability Clause
- Withholding Clause
- Applicable Law Clause
- Obligation of Contractor Clause

3.0 GENERAL

3.1 **Proforma II - The compliance statement should be duly filled up.** In case Contractor 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. No deviation will however, be accepted in the clauses covered under BRC.

3.2 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 clarification fulfilling the BRC clauses in toto must be received on or before the deadline given by the Company, failing which the offer will summarily rejected.

3.3 If any of the clauses in the BRC contradict with other clauses of bidding document elsewhere, then the clauses in the BRC shall prevail.

3.4 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.

4.0 BID EVALUATION CRITERIA

4.1 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.

4.2 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 taking into account the rates quoted in the **PRICE BID FORMAT INCORPORATED IN THE SCHEDULE OF RATES (SECTION-V)**.

Total Estimated Contract Value for Acquisition & Processing of 400 sq. km. (Full Fold) 3D in OIL's NELP-VI Block KG-ONN-2004/1 in the district of East Godavari in Andhra Pradesh (511 SqKm) and in Yanam District of Puducherry, India, C = A + B

Where:

A. Total charges for Data Acquisition in OIL's NELP-VI Block KG-ONN-2004/1 in the district of East Godavari in Andhra Pradesh (511 SqKm area) and in Yanam District of Puducherry, India (38 SqKm area).

B. Total charges for Data Processing in OIL's NELP-VI Block KG-ONN-2004/1 in the district of East Godavari in Andhra Pradesh (511 SqKm) and in Yanam District of Puducherry, India (38 SqKm area).

Note:

- i) The items mentioned in above clauses are to be read in conjunction with SECTION-V (Schedule of Rates/Price Bid Format).
- ii) The quantities mentioned against each item in Schedule of Rate / Price Bid Format for evaluation purposes only. However, payment will be made at actual.

4.3 **Custom Duty:** No customs duty is considered for evaluation of the offers since imports under this contract are presently exempted from payment of custom duty as the proposed survey shall be carried out in PEL area issued to company after 01/04/1999.

&&&&&&&&

Annexure - I

LIST OF KEY PERSONNEL TO BE DEPLOYED BY CONTRACTOR

<u>POSITION SPECIALIST STAFF</u>	<u>MINIMUM WORK EXPERIENCE</u>	<u>NUMBER OF PERSONNEL</u>
A. DATA ACQUISITION		
1. Supervisor	10 yrs (of which 3 years as Party Chief/ Supervisor)	One
2. Party Chief	7 yrs (of which 3 years as Party Chief/ Supervisor)	One
3. Seismologist	5 yrs (as Seismologist)	One
4. QC Processing Geophysicist	5 yrs (data acquisition & data Processing)	One
5. Sr. Observer/ Instrument/Technician	5 yrs (as observer/ Instrument /Technician)	Two
6. Sr. Surveyor	5 yrs (as surveyor)	Three
7. HSE Specialist	5 years	One

The experience shown above should be in seismic data acquisition, of which at least fifty percent should be in 3D seismic data acquisition.

B. DATA PROCESSING

1. Processing Manager	8 yrs (in land 3D data processing)	One
2. Processing Geophysicist	5 yrs (in land 3D data processing)	Two

The experience shown above should be in seismic data processing.

Note :

The above list indicates the minimum requirement of Key personnel and their experience. The Contractor may deploy other personnel e.g. observers, surveyors, technicians, drilling supervisors, shooters, etc. to accomplish the job as per the defined parameter and time frame. The detailed bio-data of the key personnel must be submitted with the technical bids. In case of data acquisition, the shooters and other explosive handling personnel, radio operators, etc. must have valid licenses as applicable for operating in the designated area. The Supervisor and the Party Chief have to be efficient enough to coordinate with Company and perform all other required interaction with external agencies for executing the job successfully. All the key personnel should be fluent in speaking, writing & understanding English language.

EQUIPMENT AND ACCESSORIES

The quantity and the type of equipment to be deployed for carrying out the survey must conform to the latest industry standards and should have the minimum vintage, features and capabilities as described below:

DESCRIPTION

A. DGPS SYSTEM

The required number (at least four (4) Nos.) of DGPS systems not older than **3 years** on the bid closing date and capable of operating in L1 & L2 modes along with necessary accessories, software, etc.

B. SURVEY SYSTEM

Adequate number of latest Total Stations with data loggers (minimum three (3) nos.), accessories, survey software, etc. that will be required to carry out topographic survey in proper time frame. The survey systems should not be more than **3 years** old as on bid closing date. Apart from this, other necessary survey equipment such as hand compasses etc. should also be deployed.

C. SEISMIC RECORDING SYSTEM

Latest data acquisition system preferably of **3 years vintage** on the bid closing date having the following features:

- 24 bit delta-sigma technology to be deployed;
- Capable of handling a minimum 2880 channels per shot record with 2ms sampling interval (with adequate field electronics for field to be laid so that the Tendered quantum of work can be completed in scheduled time);
- a) The necessary field units, radio blasters, cables, power supply systems and low distortion marsh geophones (distortion less than and equal to 0.1 percent, with steel/brass spikes, housed in water-proof cases with 5m connecting lead wire and compatible with 24-bit recording facility using the delta-sigma technology) should also be catered for.
- b) The Contractor must bring in adequate number of accessories such as oscilloscopes, multimeters, PC based repair stations etc.
- c) Contractor should also bring adequate no. of hydrophones (compatible with recording equipment of delta-sigma technology);
- d) **The cables and geophones should not be more than one year old as on bid closing date.**
- e) The field units should preferably be of **3 years** vintage as on bid closing date.
- f) All the above equipment must be in perfect working condition.

D. LVL EQUIPMENT

LVL/Uphole equipment of vintage not exceeding **3 years** as on bid closing date with the following features must be brought:

- 24 channel recorder;

- Blasters;
- 345 m length, 24 take outs, reversible cables;
- Refraction Geophone 4.5 Hz;
- Cap test meters.

E. Airguns

The airguns should not be more than 3 years old as on bid closing date.

F. COMPUTING FACILITY

i) Stand-alone workstation and PCs with adequate RAM, Disk-space, etc. for running following software in perfect working condition:

- Field management/planning.
- Survey simulation package complete with attribute analysis e.g. offset, azimuth, etc.
- Survey data management & processing.
- LVL/ Uphole data processing & interpretation (including tomography based Interpretation).
- Ray tracing.
- Full fledged 3D seismic data processing software for QC processing of acquired 3D seismic data

The workstation needs to be connected to color plotter, line printers and IBM **3492E Exabyte / DVD / DLT** cartridge drive for back-ups and any other facilities required to control the quality of survey and to provide the technical inputs required by Company.

G. COMMUNICATION EQUIPMENT

All the communication equipment e.g. walkie-talkies, VHF radios, 100 Watt SSB radios, etc. should be in adequate numbers with valid license and in perfect working condition.

H. TRANSPORT

The Contractor has to decide and bring the quantity of all the required specialized transport for crew & equipment movement to carry out seismic survey on land/river/swamps/forests etc. All the available indigenous transport have to be arranged locally by the contractor and they must have in perfect running condition with valid license.

NOTE:

a) The item-wise list of all imported equipments/ transport etc. has to be provided together with their respective CIF values in the commercial bid.

b) Similar list as aforesaid in (a) but excluding the CIF values together with local items, if any, has to be provided in the technical bid.

PROFORMA I

LIST OF ITEMS (Equipment, Tools,Accessories,Spares & consumables) TO BE IMPORTED IN CONNECTION WITH EXECUTION OF THE CONTRACT SHOWING THE CIF VALUE

Srl #	Items Description	Qty /Unit	Rate	Total	Freight & Insurance	CIF Value	Port & Other Charges	Landed cost	Is it re-exportable ? YES or NO	Year of Mfg.	HSN Code
A	B	C	D	E = C x D	F	G = F + E	H	I=G+H	J	K	L

- (1) The items which are not of consumable nature and required to be re-exported outside India after completion of contract should be indicated as “YES” in column ‘J’.
- (2) The items which are of consumable nature should be indicated as “NO” in column “J”
- (3) For estimation of applicable customs duty , the bidder are required to indicate customs tariff code (i.e. HSN code) of each item in column “L”.

Authorized Person’s Signature:-----

Name : -----

Seal of Bidder

PROFORMA II

STATEMENT OF COMPLIANCE

SECTION NO.
REMARKS

CLAUSE NO./
SUB-CLAUSE NO.

COMPLIANCE/NON-
COMPLIANCE

Signature of the bidder

BID FORM

To

M/s. Oil India Limited,
Bay Exploration Project
IDCO Towers, 3rd Floor
Bhubaneswar, Orissa-751 022

Sub : Tender No. : _____

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 180 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 _____ 2006.

Signature

(In the capacity of)

PROFORMA II B

FORM OF PERFORMANCE BANK GUARANTEE

To :

To

M/s. Oil India Limited,
For Head Projects (BEP&KG)
Bay Exploration Project
IDCO Towers, 3rd Floor
Bhubaneswar, Orissa-751 022

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 thereunder 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 15 months after Contract completion date).

SIGNATURE AND SEAL OF THE GUARANTORS _____
Designation _____
Name of Bank _____
Address _____

Date Place _____

CONTRACT FORM

This Contract is made on ____ day of _____ between 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. _____.

WHEREAS Contractor has accepted Company's Letter of Award 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 tender document and subsequent letters including the Letter of Award 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 authorized 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 and Annexures attached herewith shall be deemed to form and be read and construed as part of this agreement viz.:

- (a) Section-I indicating the General Conditions of Contract,
- (b) Section-II indicating the Terms of Reference / Technical Specifications,
- (c) Section-III indicating the Schedule of rates and
- (d) Section – IV indicating the Special Conditions of Contract.

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 Bhubaneswar, Orissa 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.

FORM OF BID SECURITY (BANK GUARANTEE)

To :

M/s. OIL INDIA LIMITED,
Head Projects (BEP&KG),
Bay Exploration Project, IDCO Towers, 3rd Floor
Bhubaneswar, Orissa-751 022

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, Bay Exploration Project, IDCO Towers, 3rd Floor, Bhubaneswar, Orissa (hereinafter called the Company)'s tender No. : _____. 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 _____ 2004.

THE CONDITIONS of these obligations are:

- (1) If the Bidder withdraws / modifies 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 Contract 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 _____
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.

PROFORMA LETTER OF AUTHORITY

TO

M/s. Oil India Limited,
For Head Projects (BEP&KG),
Bay Exploration Project
IDCO Towers, 3rd Floor
Bhubaneswar, Orissa-751 022

Sir,

Sub : **OIL's Tender No.** _____

We _____ confirm that Mr. _____ (Name and address) as authorized 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,

Signature: _____
Name & Designation: _____
For & on behalf of: _____

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.